- Supplementary Text 1: Reference list of included studies on global seroprevalence of Hepatitis B virus serological markers among Healthcare Workers
- Sangfelt P, Uhnoo I, Reichard O, Weiland O. A low-dose intradermal hepatitis B vaccine programme in health-care workers and students is highly effective and cost saving: a retrospective follow-up survey in the clinical setting. Scand J Gastroenterol 2008; 43: 465–472. [PMID: 18365912 DOI: 10.1080/00365520701733806]
- Lewis TL, Alter HJ, Chalmers TC, Holland PV, Purcell RH, Alling DW, Young D, Frenkel LD, Lee SL, Lamson ME. A comparison of the frequency of hepatitis-B antigen and antibody in hospital and nonhospital personnel. N Engl J Med 1973; 289: 647–651. [PMID: 4727967 DOI: 10.1056/NEJM197309272891301]
- 3 Ganczak M, Ostrowski M, Szych Z, Korzeń M. A complete HBV vaccination coverage among Polish surgical nurses in the light of anti-HBc prevalence: A cross-sectional sero-prevalence study. Vaccine 2010; 28: 3972–3976. [PMID: 20381644 DOI: 10.1016/j.vaccine.2010.03.042]
- 4 Tong MJ, Co RL, Marci RD, Michaelson PM, Ortega G. A cost comparison analysis for screening and vaccination of hospital personnel with high- and low-prevalence hepatitis B virus antibodies in California. Infect Control Hosp Epidemiol 1988; 9: 66–71. [PMID: 3125243 DOI: 10.1086/645787]
- 5 Ganczak M. A cross-sectional study on anti hepatitis B immune status in vaccinated healthcare workers in the west pomeranian region of poland. Hepat Mon 2012; 12: 185–189. [PMID: 22550526 DOI: 10.5812/hepatmon.850]
- Tong MJ, Howard AM, Schatz GC, Kane MA, Roskamp DA, Co RL, Boone C. A hepatitis B vaccination program in a community teaching hospital. Infect Control 1987; 8: 102–107. [PMID: 2952617 DOI: 10.1017/s0195941700067266]
- 7 Klimek JJ, Brettman L, Neuhaus E, Garibaldi RA. A multi-hospital hepatitis B vaccine program: prevalence of antibody and acceptance of vaccination among highrisk hospital employees. Infect Control 1985; 6: 32–34. [PMID: 3843989 DOI: 10.1017/s0195941700062469]
- 8 Snydman DR, Muñoz A, Werner BG, Polk BF, Craven DE, Platt R, Crumpacker C, Ouellet-Hellstrom R, Nash B, Grady GF. A multivariate analysis of risk factors for hepatitis B virus infection among hospital employees screened for vaccination. Am J Epidemiol 1984; 120: 684–693. [PMID: 6496449 DOI: 10.1093/oxfordjournals.aje.a113935]
- 9 Taylor R, Sladden T, Levy S, Gust I, Macaskill P, Rushworth L, Gaxibarich G. A seroepidemiological study of hepatitis B amongst Fiji health care workers. Southeast Asian J Trop Med Public Health 1991; 22: 567–576.

- Smith CE. A study of the prevalence of markers of hepatitis B infection in hospital staff. J Hosp Infect 1987; 9: 39–42. [PMID: 2880897 DOI: 10.1016/0195-6701(87)90093-4]
- Figueroa JP, Carpenter H, Hospedales CJ. A survey of hepatitis B among health workers in Jamaica. West Indian Med J 1994; 43: 2–6.
- Anderson AC, Hodges GR. Acceptance of hepatitis B vaccine among high-risk health care workers. Am J Infect Control 1983; 11: 207–211. [PMID: 6230033 DOI: 10.1016/0196-6553(83)90001-9]
- Gutierrez EB, Lopes MH, Yasuda MAS. Accidental exposure to biological material in healthcare workers at a university hospital: Evaluation and follow-up of 404 cases. Scand J Infect Dis 2005; 37: 295–300. [PMID: 15804666 DOI: 10.1080/00365540410026103]
- Nagashima S, Yamamoto C, Ko K, Chuon C, Sugiyama A, Ohisa M, Akita T, Katayama K, Yoshihara M, Tanaka J. Acquisition rate of antibody to hepatitis B surface antigen among medical and dental students in Japan after three-dose hepatitis B vaccination. Vaccine 2019; 37: 145–151. [PMID: 30449632 DOI: 10.1016/j.vaccine.2018.11.019]
- Shim J, Kim KY, Kim B-H, Chun H, Lee MS, Hwangbo Y, Jang JY, Dong SH, Kim HJ, Chang YW, Chang R. Anti-hepatitis B core antibody is not required for prevaccination screening in healthcare workers. Vaccine 2011; 29: 1721–1726. [PMID: 21147128 DOI: 10.1016/j.vaccine.2010.11.044]
- Hansson BG. Antibodies to hepatitis B surface and core antigens in haemophiliacs and their contacts among hospital personnel. Scand J Infect Dis 1977; 9: 167–169. [PMID: 905782 DOI: 10.3109/inf.1977.9.issue-3.02]
- 17 Kessler HA, Harris AA, Payne JA, Hudson E, Potkin B, Levin S. Antibodies to hepatitis B surface antigen as the sole hepatitis B marker in hospital personnel. Ann Intern Med 1985; 103: 21–26. [PMID: 4003986 DOI: 10.7326/0003-4819-103-1-21]
- Goldberg R, Thomas H, Kuhn G, Moradzadeh D, Mody T, Boss RW, Goodman E. Antibody titers to hepatitis B surface antigen among vaccinated emergency physicians: three years' experience with a wellness booth. Ann Emerg Med 1999; 33: 156–159. [PMID: 9922410 DOI: 10.1016/s0196-0644(99)70388-4]
- Hovig B, Rollag H, Dahl O. Antibody to hepatitis B surface antigen among employees in the National Hospital, Oslo, Norway: a prevalence study. Am J Epidemiol 1985; 122: 127–134. [PMID: 4014189 DOI: 10.1093/oxfordjournals.aje.a114071]
- Chaudhari CN, Bhagat MR, Shah T, Misra RN. Antibody to Hepatitis B Surface Antigen in Vaccinated Health Care Workers. Med J Armed Forces India 2008; 64: 329–332. [PMID: 27688569 DOI: 10.1016/S0377-1237(08)80013-5]

- Lungosi MB, Muzembo BA, Mbendi NC, Nkodila NA, Ngatu NR, Suzuki T, Wada K, Mbendi NS, Ikeda S. Assessing the prevalence of hepatitis B virus infection among health care workers in a referral hospital in Kisantu, Congo DR: a pilot study. Ind Health 2019; 57: 621–626. [PMID: 30674736 DOI: 10.2486/indhealth.2018-0166]
- 22 Kunst VA, Bloo JH. Australia antigen and antibody in laboratory and other hospital personnel. Vox Sang 1973; 24: Suppl:61-64. [PMID: 4198172 DOI: 10.1111/j.1423-0410.1973.tb03514.x]
- Topuridze M, Butsashvili M, Kamkamidze G, Kajaia M, Morse D, McNutt LA. Barriers to hepatitis B vaccine coverage among healthcare workers in the Republic of Georgia: An international perspective. Infect Control Hosp Epidemiol 2010; 31: 158–164. [PMID: 20038247 DOI: 10.1086/649795]
- Fisker N, Mygind LH, Krarup HB, Licht D, Georgsen J, Christensen PB. Blood borne viral infections among Danish health care workers--frequent blood exposure but low prevalence of infection. Eur J Epidemiol 2004; 19: 61–67. [PMID: 15012024 DOI: 10.1023/b:ejep.0000013397.51614.d4]
- Henderson EA, Louie TJ, Ramotar K, Ledgerwood D, Hope KM, Kennedy A. Comparison of higher-dose intradermal hepatitis B vaccination to standard intramuscular vaccination of healthcare workers. Infect Control Hosp Epidemiol 2000; 21: 264–269. [PMID: 10782589 DOI: 10.1086/501756]
- Panhotra BR, Saxena AK, Al-Hamrani HA, Al-Mulhim A. Compliance to hepatitis B vaccination and subsequent development of seroprotection among health care workers of a tertiary care center of Saudi Arabia. Am J Infect Control 2005; 33: 144–150. [PMID: 15798668 DOI: 10.1016/j.ajic.2005.01.002]
- Bianchi FP, Vimercati L, Mansi F, De Nitto S, Stefanizzi P, Rizzo LA, Fragnelli GR, Cannone ESS, De Maria L, Larocca AMV, Tafuri S. Compliance with immunization and a biological risk assessment of health care workers as part of an occupational health surveillance program: The experience of a university hospital in southern Italy. Am J Infect Control 2020; 48: 368–374. [PMID: 31753548 DOI: 10.1016/j.ajic.2019.09.024]
- Massaquoi TA, Burke RM, Yang G, Lakoh S, Sevalie S, Li B, Jia H, Huang L, Deen GF, Beynon F, Sahr F. Cross sectional study of chronic hepatitis B prevalence among healthcare workers in an urban setting, Sierra Leone. PLoS One 2018; 13: e0201820. [PMID: 30096162 DOI: 10.1371/journal.pone.0201820]
- 29 Slusarczyk J, Małkowski P, Bobilewicz D, Juszczyk G. Cross-sectional, anonymous screening for asymptomatic HCV infection, immunity to HBV, and occult HBV infection among health care workers in Warsaw, Poland. Przegl Epidemiol 2012; 66: 445–451.
- 30 Lanphear BP, Linnemann CC, Cannon CG, DeRonde MM. Decline of clinical hepatitis B in workers at a general hospital: relation to increasing vaccine-induced

- immunity. Clin Infect Dis 1993; 16: 10–14. [PMID: 8448282 DOI: 10.1093/clinids/16.1.10]
- Belo AC. Distribution of hepatitis B virus markers among surgical specialties in Lagos, Nigeria. Trans R Soc Trop Med Hyg 2000; 94: 53–54. [PMID: 10748899 DOI: 10.1016/s0035-9203(00)90437-1]
- Favero MS, Deane N, Leger RT, Sosin AE. Effect of multiple use of dialyzers on hepatitis B incidence in patients and staff. JAMA 1981; 245: 166–167.
- Williams SV, Huff JC, Feinglass EJ, Gregg MB, Hatch MH, Matsen JM. Epidemic viral hepatitis, type B, in hospital personnel. Am J Med 1974; 57: 904–911. [PMID: 4215322 DOI: 10.1016/0002-9343(74)90168-5]
- Fukumoto K, Nishikawa Y. Epidemiological study of occupational exposure to hepatitis B virus and liver function tests. Clin Biochem 1989; 22: 309–312. [PMID: 2789111 DOI: 10.1016/s0009-9120(89)80024-4]
- 35 Erhabor O, Ejele OA, Nwauche CA. Epidemiology and management of occupational exposure to blood borne viral infections in a resource poor setting: the case for availability of post exposure prophylaxis. Niger J Clin Pract 2007; 10: 100–104.
- Pattison CP, Maynard JE, Berquist DR, Webster HM. Epidemiology of hepatitis B in hospital personnel. Am J Epidemiol 1975; 101: 59–64. [PMID: 1119482 DOI: 10.1093/oxfordjournals.aje.a112071]
- Janzen J, Tripatzis I, Wagner U, Schlieter M, Müller-Dethard E, Wolters E. Epidemiology of hepatitis B surface antigen (HBsAg) and antibody to HBsAg in hospital personnel. J Infect Dis 1978; 137: 261–265. [PMID: 632624 DOI: 10.1093/infdis/137.3.261]
- Köse S, Türken M, Cavdar G, Tatar B, Senger SS. Evaluation of vaccination results in high-risk patients included in hepatitis B vaccination program. Hum Vaccin 2010; 6: 903–905. [PMID: 20980797 DOI: 10.4161/hv.6.11.12918]
- Noah DN, Ngaba GP, Bagnaka SFE, Assi C, Ngantchet E, Njoya O. [Evaluation of vaccination status against hepatitis B and HBsAg carriage among medical and paramedical staff of the Yaoundé Central Hospital, Cameroon]. Pan Afr Med J 2013; 16: 111. [PMID: 24778748 DOI: 10.11604/pamj.2013.16.111.2760]
- 40 Srichomkwun P, Apisarnthanarak A, Thongphubeth K, Yuekyen C, Mundy LM. Evidence of vaccine protection among thai medical students and implications for occupational health. Infect Control Hosp Epidemiol 2009; 30: 585–588. [PMID: 19419330 DOI: 10.1086/597508]
- Kyelem CG, Sawadogo A, Yaméogo TM, Barro L, Ouédraogo SM, Kamboulé EB, Ouédraogo AS, Poda GE, Zoungrana J, Nacro B. Facteurs de risque de l'hépatite B chez le personnel de santé du Centre Hospitalier Universitaire de Bobo-Dioulasso,

- Burkina Faso. Journal Africain d'Hépato-Gastroentérologie 2015; 1: 12–17. [DOI: 10.1007/s12157-014-0575-7]
- Mujeeb SA, Khatri Y, Khanani R. Frequency of parenteral exposure and seroprevalence of HBV, HCV, and HIV among operation room personnel. J Hosp Infect 1998; 38: 133–137. [PMID: 9522291 DOI: 10.1016/s0195-6701(98)90066-4]
- Smith JL, Maynard JE, Berquist KR, Doto IL, Webster HM, Sheller MJ. From the Center for Disease Control: comparative risk of hepatitis B amono physicians and dentists. J Infect Dis 1976; 133: 705–706. [PMID: 932496 DOI: 10.1093/infdis/133.6.705]
- Elmukashfi TA, Ibrahim OA, Elkhidir IM, Bashir AA, Elkarim MAA. Hazards analysis, within departments and occupations, for hepatitis B virus among health care workers in Public Teaching Hospitals in Khartoum State; Sudan. Glob J Health Sci 2012; 4: 51–59. [PMID: 23121743 DOI: 10.5539/gjhs.v4n6p51]
- Nagao Y, Matsuoka H, Kawaguchi T, Ide T, Sata M. HBV and HCV infection in Japanese dental care workers. Int J Mol Med 2008; 21: 791–799.
- Lule GN, Okoth F, Ogutu EO, Mwai SJ. HBV markers (HBsAg, HBSAb, HBCAb in 160 medical students at Kenyatta National Hospital. East Afr Med J 1989; 66: 315–318.
- Bianchi FP, Gallone MS, Gallone MF, Larocca AMV, Vimercati L, Quarto M, Tafuri S. HBV seroprevalence after 25 years of universal mass vaccination and management of non-responders to the anti-Hepatitis B vaccine: An Italian study among medical students. J Viral Hepat 2019; 26: 136–144. [PMID: 30199579 DOI: 10.1111/jvh.13001]
- Tufon KA, Meriki HD, Kwenti TE, Tony NJ, Malika E, Bolimo AF, Kouanou YS, Nkuo-Akenji T, Anong DN. HBV Transmission Risk Assessment in Healthcare Workers, Household and Sexual Contacts of HBV Infected Patients in the Southwest Region of Cameroon. Oman Med J 2019; 34: 313–321. [PMID: 31360320 DOI: 10.5001/omj.2019.62]
- 49 Garzillo EM, Arnese A, Coppola N, Corvino A, Feola D, Monaco MGL, Signoriello G, Marsella LT, Arena P, Lamberti M. HBV vaccination status among healthcare workers: A cross-sectional study. J Infect Prev 2020; 21: 23–27. [PMID: 32030100 DOI: 10.1177/1757177419873043]
- 50 Skinhøj P, Vinterberg H, Aldershvile J, Kryger P. Hepatitis A, B, and non-A, non-B in Danish hospital nursing staff. J Clin Pathol 1984; 37: 763–766. [PMID: 6086725 DOI: 10.1136/jcp.37.7.763]
- Palmer DL, Barash M, King R, Neil F. Hepatitis among hospital employees. West J Med 1983; 138: 519–523.
- Berris B, Feinman SV, Sinclair JC, Wrobel D. Hepatitis and hepatitis B surface antigen and antibody in dentists. Can Med Assoc J 1978; 119: 1040–1043.

- Ammon A, Reichart PA, Pauli G, Petersen LR. Hepatitis B and C among Berlin dental personnel: incidence, risk factors, and effectiveness of barrier prevention measures. Epidemiol Infect 2000; 125: 407–413. [PMID: 11117965 DOI: 10.1017/s0950268899004537]
- Olubuyide IO, Ola SO, Aliyu B, Dosumu OO, Arotiba JT, Olaleye OA, Odaibo GN, Odemuyiwa SO, Olawuyi F. Hepatitis B and C in doctors and dentists in Nigeria. QJM 1997; 90: 417–422. [PMID: 9205680 DOI: 10.1093/qjmed/90.6.417]
- Rybacki M, Piekarska A, Wiszniewska M, Walusiak-Skorupa J. Hepatitis B and C infection: is it a problem in Polish healthcare workers? Int J Occup Med Environ Health 2013; 26: 430–439. [PMID: 23817869 DOI: 10.2478/s13382-013-0088-0]
- Memon AR, Shafique K, Memon A, Draz AU, Rauf MUA, Afsar S. Hepatitis B and C prevalence among the high risk groups of Pakistani population. A cross sectional study. Arch Public Health 2012; 70: 9. [PMID: 22958798 DOI: 10.1186/0778-7367-70-9]
- 57 Irmak Z, Ekinci B, Akgul AF. Hepatitis B and C seropositivity among nursing students at a Turkish university. Int Nurs Rev 2010; 57: 365–369. [PMID: 20796067 DOI: 10.1111/j.1466-7657.2010.00804.x]
- Kateera F, Walker TD, Mutesa L, Mutabazi V, Musabeyesu E, Mukabatsinda C, Bihizimana P, Kyamanywa P, Karenzi B, Orikiiriza JT. Hepatitis B and C seroprevalence among health care workers in a tertiary hospital in Rwanda. Trans R Soc Trop Med Hyg 2015; 109: 203–208. [PMID: 25636951 DOI: 10.1093/trstmh/trv004]
- 59 Elzouki A-N, Elgamay SM, Zorgani A, Elahmer O. Hepatitis B and C status among health care workers in the five main hospitals in eastern Libya. J Infect Public Health 2014; 7: 534–541. [PMID: 25151657 DOI: 10.1016/j.jiph.2014.07.006]
- Hebo HJ, Gemeda DH, Abdusemed KA. Hepatitis B and C Viral Infection: Prevalence, Knowledge, Attitude, Practice, and Occupational Exposure among Healthcare Workers of Jimma University Medical Center, Southwest Ethiopia. ScientificWorldJournal 2019; 2019: 9482607. [PMID: 30853866 DOI: 10.1155/2019/9482607]
- Duseja A, Arora L, Masih B, Singh H, Gupta A, Behera D, Chawla YK, Dhiman RK. Hepatitis B and C virus--prevalence and prevention in health care workers. Trop Gastroenterol 2002; 23: 125–126.
- Fritzsche C, Becker F, Hemmer CJ, Riebold D, Klammt S, Hufert F, Akam W, Kinge TN, Reisinger EC. Hepatitis B and C: neglected diseases among health care workers in Cameroon. Trans R Soc Trop Med Hyg 2013; 107: 158–164. [PMID: 23303802 DOI: 10.1093/trstmh/trs087]
- Demsiss W, Seid A, Fiseha T. Hepatitis B and C: Seroprevalence, knowledge, practice and associated factors among medicine and health science students in

- Northeast Ethiopia. PLoS One 2018; 13: e0196539. [PMID: 29763447 DOI: 10.1371/journal.pone.0196539]
- Ola SO, Odaibo GN, Olaleye OD, Ayoola EA. Hepatitis B and E viral infections among Nigerian healthcare workers. Afr J Med Med Sci 2012; 41: 387–391.
- Hirschowitz BI, Dasher CA, Whitt FJ, Cole GW. Hepatitis B antigen and antibody and tests of liver function: a prospective study of 310 hospital laboratory workers. Am J Clin Pathol 1980; 73: 63–68. [PMID: 7352425 DOI: 10.1093/ajcp/73.1.63]
- Kunches LM, Craven DE, Werner BG, Jacobs LM. Hepatitis B exposure in emergency medical personnel. Prevalence of serologic markers and need for immunization. Am J Med 1983; 75: 269–272. [PMID: 6881178 DOI: 10.1016/0002-9343(83)91204-4]
- Grady GF, Lee VA. Hepatitis B immune globulin--prevention of hepatitis from accidental exposure among medical personnel. N Engl J Med 1975; 293: 1067–1070. [PMID: 1178023 DOI: 10.1056/NEJM197511202932104]
- Funderburke PL, Spencer L. Hepatitis B immunity in high risk health care workers. Seven years post vaccination. AAOHN J 2000; 48: 325–330.
- 69 Grady GF. Hepatitis B immunity in hospital staff targeted for vaccination. Role of screening tests in immunization programs. JAMA 1982; 248: 2266–2269.
- 70 Batra V, Goswami A, Dadhich S, Kothari D, Bhargava N. Hepatitis B immunization in healthcare workers. Ann Gastroenterol 2015; 28: 276–280.
- Ciorlia LAS, Zanetta DMT. Hepatitis B in healthcare workers: prevalence, vaccination and relation to occupational factors. Braz J Infect Dis 2005; 9: 384–389. [PMID: 16410889 DOI: 10.1590/s1413-8670200500050005]
- 72 Djeriri K, Laurichesse H, Merle JL, Charof R, Abouyoub A, Fontana L, Benchemsi N, Elharti E, El Aouad R, Chamoux A, Beytout J. Hepatitis B in Moroccan health care workers. Occup Med (Lond) 2008; 58: 419–424. [PMID: 18562546 DOI: 10.1093/occmed/kqn071]
- Levy BS, Harris JC, Smith JL, Washburn JW, Mature J, Davis A, Crosson JT, Polesky H, Hanson M. Hepatitis B in ward and clinical laboratory employees of a general hospital. Am J Epidemiol 1977; 106: 330–335. [PMID: 333905 DOI: 10.1093/oxfordjournals.aje.a112469]
- Braka F, Nanyunja M, Makumbi I, Mbabazi W, Kasasa S, Lewis RF. Hepatitis B infection among health workers in Uganda: evidence of the need for health worker protection. Vaccine 2006; 24: 6930–6937. [PMID: 17027122 DOI: 10.1016/j.vaccine.2006.08.029]
- Tatsilong HOP, Noubiap JJN, Nansseu JRN, Aminde LN, Bigna JJR, Ndze VN, Moyou RS. Hepatitis B infection awareness, vaccine perceptions and uptake, and

- serological profile of a group of health care workers in Yaoundé, Cameroon. BMC Public Health 2016; 15: 706. [PMID: 27487845 DOI: 10.1186/s12889-016-3388-z]
- Jha AK, Chadha S, Bhalla P, Saini S. Hepatitis B infection in microbiology laboratory workers: prevalence, vaccination, and immunity status. Hepat Res Treat 2012; 2012: 520362. [PMID: 23304474 DOI: 10.1155/2012/520362]
- 77 Baldinger JC, Lobes LA, Kane MA. Hepatitis B infection in ophthalmologists. Ophthalmology 1986; 93: 1222–1224. [PMID: 3808632 DOI: 10.1016/s0161-6420(86)33594-2]
- Woodfield DG. Hepatitis B infections in expatriate doctors in Papua New Guinea. Med J Aust 1976; 2: 595–599. [PMID: 1004307 DOI: 10.5694/j.1326-5377.1976.tb115267.x]
- Ferreira JA, Tambellini AT, da Silva CL, Guimarães MA. Hepatitis B morbidity in municipal and hospital waste collection workers in the city of Rio de Janeiro. Infect Control Hosp Epidemiol 1999; 20: 591–592. [PMID: 10501252 DOI: 10.1086/503147]
- 80 Song KB, Choi KS, Lang WP, Jacobson JJ. Hepatitis B prevalence and infection control among dental health care workers in a community in South Korea. J Public Health Dent 1999; 59: 39–43. [PMID: 11396043 DOI: 10.1111/j.1752-7325.1999.tb03233.x]
- 81 Iserson KV, Criss EA. Hepatitis B prevalence in emergency physicians. Ann Emerg Med 1985; 14: 119–122. [PMID: 3970395 DOI: 10.1016/s0196-0644(85)81071-4]
- Hollinger FB, Grander JW, Nickel FR, Suarez M. Hepatitis B prevalence within a dental student population. J Am Dent Assoc 1977; 94: 521–527. [PMID: 264921 DOI: 10.14219/jada.archive.1977.0016]
- Odemuyiwa SO, Oyedele OI, Forbi JC, Elemuwa CO, Ibeh MA, Kfutwah AK, Uche LN, Anibaba AA. Hepatitis B surface antigen (HbsAg) in the sera of medical, nursing and microbiology students in Ibadan, Nigeria. Afr J Med Med Sci 2001; 30: 333–335.
- Rapisarda V, Nunnari G, Senia P, Vella F, Vitale E, Murabito P, Salerno M, Ledda C. Hepatitis B vaccination coverage among medical residents from Catania University Hospital, Italy. Future Microbiol 2019; 14: 41–44. [PMID: 31187633 DOI: 10.2217/fmb-2018-0240]
- Ly KN, Roberts H, Williams RE, Masunu-Faleafaga Y, Drobeniuc J, Kamili S, Teshale EH. Hepatitis B vaccination for healthcare personnel in American Samoa: preimplementation survey for policy decision. Epidemiol Infect 2014; 142: 2610–2615. [PMID: 24476680 DOI: 10.1017/S0950268813003506]
- Marinho RT, Moura MC, Pedro M, Ramalho FJ, Velosa JF. Hepatitis B vaccination in hospital personnel and medical students. J Clin Gastroenterol 1999; 28: 317–322. [PMID: 10372928 DOI: 10.1097/00004836-199906000-00007]

- 87 Locquet C, Marande J-L, Choudat D, Vidal-Trecan G. Hepatitis B vaccination in women healthcare workers: a seroepidemiological survey. Eur J Epidemiol 2007; 22: 113–119. [PMID: 17295098 DOI: 10.1007/s10654-006-9094-x]
- Chernesky MA, Browne RA, Rondi P. Hepatitis B virus antibody prevalence in anaesthetists. Can Anaesth Soc J 1984; 31: 239–245. [PMID: 6722618 DOI: 10.1007/BF03007882]
- 89 Elmaghloub R, Elbahrawy A, Didamony GE, Elwassief A, Saied Mohammad A-G, Alashker A, Zedan H, Abdallah AM, Hemidah MH, Elmestikawy A, Fayoumei ME, Shahba H, Gawish A, Morsy MH, Hashim A, Abdelbaseer MA, Ueda Y, Chiba T, Abdelhafeez H. Hepatitis B Virus Genotype E Infection among Egyptian Health Care Workers. J Transl Int Med 2017; 5: 100–105. [PMID: 28721342 DOI: 10.1515/jtim-2017-0012]
- Antoniello S, Auletta M, Cerini R, Memoli A, Cigolari S, Quagliata L, Macchia V, Cacciatore L. Hepatitis B virus infection among health care workers at an urban teaching hospital in southern Italy: a low occupational hazard? Eur J Epidemiol 1989; 5: 228–233. [PMID: 2767232 DOI: 10.1007/BF00156836]
- Elduma AH, Saeed NS. Hepatitis B virus infection among staff in three hospitals in Khartoum, Sudan, 2006-07. East Mediterr Health J 2011; 17: 474-478.
- Goubran GF, Cullens H, Zuckerman AJ, Feddleston AL, Williams R. Hepatitis B virus infection in dental surgical practice. Br Med J 1976; 2: 559–560. [PMID: 963431 DOI: 10.1136/bmj.2.6035.559]
- 93 Mosley JW, Edwards VM, Casey G, Redeker AG, White E. Hepatitis B virus infection in dentists. N Engl J Med 1975; 293: 729–734. [PMID: 1160951 DOI: 10.1056/NEJM197510092931501]
- Panis B, Roumeliotou-Karayannis A, Papaevangelou G, Richardson SC, Mitsis F. Hepatitis B virus infection in dentists and dental students in Greece. Oral Surg Oral Med Oral Pathol 1986; 61: 343–345. [PMID: 3458145 DOI: 10.1016/0030-4220(86)90416-0]
- 95 Kondili LA, Ulqinaku D, Hajdini M, Basho M, Chionne P, Madonna E, Taliani G, Candido A, Dentico P, Bino S, Rapicetta M. Hepatitis B virus infection in health care workers in Albania: a country still highly endemic for HBV infection. Infection 2007; 35: 94–97. [PMID: 17401713 DOI: 10.1007/s15010-007-6076-1]
- 96 Elavia AJ, Banker DD. Hepatitis B virus infection in hospital personnel. Natl Med J India 1992; 5: 265–268.
- 97 Dentico P, Zavoianni A, Volpe A, Buongiorno R, Palma R, Calasso A, Pastore G, Schiraldi O. Hepatitis B virus infection in hospital staff: epidemiology and persistence of vaccine-induced antibodies. Vaccine 1991; 9: 438–442. [PMID: 1832256 DOI: 10.1016/0264-410x(91)90132-p]

- Aldershvile J, Brock A, Dietrichson O, Hardt F, Juhl E, Madsbad S, Mathiesen L, Matzen P, Nielsen JO, Schlichting P, Sørensen S, Tage-Jensen U. Hepatitis B virus infections among Danish dentists. J Infect Dis 1978; 137: 63–66. [PMID: 624852 DOI: 10.1093/infdis/137.1.63]
- 99 Hardt F, Aldershvile J, Dietrichson O, Juhl E, Nielsen JO, Schlichting P, Skinhøj P, Tage-Jensen U. Hepatitis B virus infections among Danish surgeons. J Infect Dis 1979; 140: 972–974. [PMID: 541525 DOI: 10.1093/infdis/140.6.972]
- 100 Dorkenoo AM, Kolou M, Sawadogo H, Fétéké L, Agbenu E, Issa S a. R, Ségbéna AY. [Hepatitis B virus serologic status among hospital health care staff in Lome]. Med Sante Trop 2014; 24: 266–270. [PMID: 24922616 DOI: 10.1684/mst.2014.0341]
- Luksamijarulkul P, Watagulsin P, Sujirarat D. Hepatitis B virus seroprevalence and risk assessment among personnel of a governmental hospital in Bangkok. Southeast Asian J Trop Med Public Health 2001; 32: 459–465.
- Sacchetto MSL da S, Barros SSLV, Araripe T de A, Silva AM, Faustino SKM, da Silva JMN. Hepatitis B: knowledge, vaccine situation and seroconversion of dentistry students of a public university. Hepat Mon 2013; 13: e13670. [PMID: 24348639 DOI: 10.5812/hepatmon.13670]
- Vedio AB, Ellam H, Rayner F, Stone B, Kudesia G, McKendrick MW, Green ST. Hepatitis B: report of prevalence and access to healthcare among Chinese residents in Sheffield UK. J Infect Public Health 2013; 6: 448–455. [PMID: 23999342 DOI: 10.1016/j.jiph.2013.05.004]
- 104 Feldman RE, Schiff ER. Hepatitis in dental professionals. JAMA 1975; 232: 1228–1230.
- Sondlane TH, Mawela L, Razwiedani LL, Selabe SG, Lebelo RL, Rakgole JN, Mphahlele MJ, Dochez C, De Schryver A, Burnett RJ. High prevalence of active and occult hepatitis B virus infections in healthcare workers from two provinces of South Africa. Vaccine 2016; 34: 3835–3839. [PMID: 27265453 DOI: 10.1016/j.vaccine.2016.05.040]
- Tufa TB, Girma A, Garoma D. High Sero-Prevalence of Hepatitis B Surface Antigens Among Non-Professional Health Care Workers at Asella Teaching Hospital, Ethiopia. Open Forum Infectious Diseases 2016; 3. [DOI: 10.1093/ofid/ofw172.290]
- 107 Platkov E, Shlyakhov E, Glick Y, Khalemsky S, Fischbein A. Immunologic evaluation of hepatitis B vaccine application in hospital staff. Int J Occup Med Environ Health 2003; 16: 249–253.
- Hofmann H, Tuma W, Heinz FX, Frisch-Niggemeyer W, Kunz C. Infectivity of medical staff for hepatitis B. Infection 1988; 16: 171–174. [PMID: 3403036 DOI: 10.1007/BF01644095]

- Cardell K, Frydén A, Normann B. Intradermal hepatitis B vaccination in health care workers. Response rate and experiences from vaccination in clinical practise. Scand J Infect Dis 1999; 31: 197–200. [PMID: 10447332 DOI: 10.1080/003655499750006272]
- Bini C, Grazzini M, Chellini M, Mucci N, Arcangeli G, Tiscione E, Bonanni P. Is hepatitis B vaccination performed at infant and adolescent age able to provide long-term immunological memory? An observational study on healthcare students and workers in Florence, Italy. Hum Vaccin Immunother 2018; 14: 450–455. [PMID: 29106317 DOI: 10.1080/21645515.2017.1398297]
- 111 Pellissier G, Yazdanpanah Y, Adehossi E, Tosini W, Madougou B, Ibrahima K, Lolom I, Legac S, Rouveix E, Champenois K, Rabaud C, Bouvet E. Is universal HBV vaccination of healthcare workers a relevant strategy in developing endemic countries? The case of a university hospital in Niger. PLoS One 2012; 7: e44442. [PMID: 22970218 DOI: 10.1371/journal.pone.0044442]
- Sukriti null, Pati NT, Sethi A, Agrawal K, Agrawal K, Kumar GT, Kumar M, Kaanan AT, Sarin SK. Low levels of awareness, vaccine coverage, and the need for boosters among health care workers in tertiary care hospitals in India. J Gastroenterol Hepatol 2008; 23: 1710–1715. [PMID: 18761556 DOI: 10.1111/j.1440-1746.2008.05483.x]
- 113 Windsor IM, Arbuckle DD, Spencer IW, Sebastian D, Ginwala KN, Jinabhai CC, Matjila MJ, Naidoo K, O'Dowd PB, Ramiah KR. Markers of hepatitis B in nurses and domestic staff in an area of high endemicity. J Hosp Infect 1984; 5 Suppl A: 81–88. [PMID: 6084691 DOI: 10.1016/0195-6701(84)90035-5]
- Pavlopoulou ID, Daikos GL, Tzivaras A, Bozas E, Kosmidis C, Tsoumakas C, Theodoridou M. Medical and nursing students with suboptimal protective immunity against vaccine-preventable diseases. Infect Control Hosp Epidemiol 2009; 30: 1006–1011. [PMID: 19708792 DOI: 10.1086/605923]
- Williams BG, Pruitt B. Natural and induced immunity to hepatitis B virus among the staff of a pediatric oncology center. Am J Infect Control 1984; 12: 261–265. [PMID: 6238555 DOI: 10.1016/0196-6553(84)90043-9]
- 116 El-Hazmi MM, Al-Majid FM. Needle stick and sharps injuries among health care workers: A 5-year surveillance in a teaching center in Saudi Arabia. Biomedical Research 2008; 19. https://www.alliedacademies.org/abstract/needle-stick-and-sharps-injuries-among-health-care-workersrna-5year-surveillance-in-a-teaching-center-in-saudi-arabia-810.html. Accessed 27 June 2021
- 117 Eskandarani HA, Kehrer M, Christensen PB. No transmission of blood-borne viruses among hospital staff despite frequent blood exposure. Dan Med J 2014; 61: A4907.

- 118 Mosendane T, Kew MC, Osih R, Mahomed A. Nurses at risk for occupationally acquired blood-borne virus infection at a South African academic hospital. S Afr Med J 2012; 102: 153–156. [PMID: 22380910 DOI: 10.7196/samj.4563]
- Spada L, Portoghese I, Noli M, Mascia N, Mereu NM, Piazza MF, Coppola RC, Campagna M. O16-3 Seroprevalence of hepatitis B virus and occupational injuries in nursing students during the clinical learning. Occup Environ Med 2016; 73: A30–A30. [DOI: 10.1136/oemed-2016-103951.80]
- Donchin M, Shouval D. Occupational and non-occupational hepatitis B virus infection among hospital employees in Jerusalem: a basis for immunisation strategy. Br J Ind Med 1992; 49: 620–625. [PMID: 1390267 DOI: 10.1136/oem.49.9.620]
- Butsashvili M, Kamkamidze G, Kajaia M, Morse DL, Triner W, Dehovitz J, McNutt L-A. Occupational exposure to body fluids among health care workers in Georgia. Occup Med (Lond) 2012; 62: 620–626. [PMID: 22869786 DOI: 10.1093/occmed/kqs121]
- Goldsmith RS, Zakaria S, Zakaria MS, Mabrouk MA, Hanafy AM, el Kaliouby AH, el-Rifae M. Occupational exposure to hepatitis B virus in hospital personnel in Cairo, Egypt. Acta Trop 1989; 46: 283–290. [PMID: 2575864 DOI: 10.1016/0001-706x(89)90041-7]
- Dienstag JL, Ryan DM. Occupational exposure to hepatitis B virus in hospital personnel: infection or immunization? Am J Epidemiol 1982; 115: 26–39. [PMID: 7055128 DOI: 10.1093/oxfordjournals.aje.a113277]
- 124 Kosgeroglu N, Ayranci U, Vardareli E, Dincer S. Occupational exposure to hepatitis infection among Turkish nurses: frequency of needle exposure, sharps injuries and vaccination. Epidemiol Infect 2004; 132: 27–33. [PMID: 14979586 DOI: 10.1017/s0950268803001407]
- Baldo V, Floreani A, Dal Vecchio L, Cristofoletti M, Carletti M, Majori S, Di Tommaso A, Trivello R. Occupational risk of blood-borne viruses in healthcare workers: a 5-year surveillance program. Infect Control Hosp Epidemiol 2002; 23: 325–327. [PMID: 12083236 DOI: 10.1086/502059]
- al-Sohaibani MO, al-Sheikh EH, al-Ballal SJ, Mirghani MA, Ramia S. Occupational risk of hepatitis B and C infections in Saudi medical staff. J Hosp Infect 1995; 31: 143–147. [PMID: 8551020 DOI: 10.1016/0195-6701(95)90169-8]
- Hadler SC, Doto IL, Maynard JE, Smith J, Clark B, Mosley J, Eickhoff T, Himmelsbach CK, Cole WR. Occupational risk of hepatitis B infection in hospital workers. Infect Control 1985; 6: 24–31. [PMID: 3871428 DOI: 10.1017/s0195941700062457]
- 128 Kuhls TL, Viker S, Parris NB, Garakian A, Sullivan-Bolyai J, Cherry JD. Occupational risk of HIV, HBV and HSV-2 infections in health care personnel caring

- for AIDS patients. Am J Public Health 1987; 77: 1306–1309. [PMID: 2820252 DOI: 10.2105/ajph.77.10.1306]
- 129 BACÂREA A. OCCUPATIONAL WORK EXPOSURE TO HEPATITIS B VIRUS INFECTION IN THE EMERGENCY COUNTY CLINICAL HOSPITAL, TIRGU MURES, ROMANIA. Acta Medica Mediterranea 2017; : 17–21. [DOI: 10.19193/0393-6384_2017_1_002]
- Goel V, Kumar D, Lingaiah R, Singh S. Occurrence of Needlestick and Injuries among Health-care Workers of a Tertiary Care Teaching Hospital in North India. J Lab Physicians 2017; 9: 20–25. [PMID: 28042212 DOI: 10.4103/0974-2727.187917]
- Obiri-Yeboah D, Awuku YA, Adjei G, Cudjoe O, Benjamin AH, Obboh E, Amoako-Sakyi D. Post Hepatitis B vaccination sero-conversion among health care workers in the Cape Coast Metropolis of Ghana. PLoS One 2019; 14: e0219148. [PMID: 31251790 DOI: 10.1371/journal.pone.0219148]
- Verso MG, Lo Cascio N, Noto Laddeca E, Amodio E, Currieri M, Giammanco G, Ferraro D, De Grazia S, Picciotto D. Predictors of Hepatitis B Surface Antigen Titers two decades after vaccination in a cohort of students and post-graduates of the Medical School at the University of Palermo, Italy. Ann Agric Environ Med 2017; 24: 303–306. [PMID: 28664713 DOI: 10.26444/aaem/74716]
- Froesner GG, Peterson DA, Holmes AW, Deinhardt FW. Prevalance of antibody to hepatitis B surface antigen in various populations. Infect Immun 1975; 11: 732–736. [PMID: 1120611 DOI: 10.1128/iai.11.4.732-736.1975]
- Qin Y-L, Li B, Zhou Y-S, Zhang X, Li L, Song B, Liu P, Yuan Y, Zhao Z-P, Jiao J, Li J, Sun Y, Sevalie S, Kanu JE, Song Y-J, Jiang J-F, Sahr F, Jiang T-J, Chinese Military Medical Experts Group in Sierra Leone. Prevalence and associated knowledge of hepatitis B infection among healthcare workers in Freetown, Sierra Leone. BMC Infect Dis 2018; 18: 315. [PMID: 29986658 DOI: 10.1186/s12879-018-3235-1]
- 135 Saqib S, Khan MZ, Hussain Shah Gardyzi SI, Qazi J. Prevalence and epidemiology of blood borne pathogens in health care workers of Rawalpindi/Islamabad. J Pak Med Assoc 2016; 66: 170–173.
- Di Nardo V, Petrosillo N, Ippolito G, Bonaventura ME, Puro V, Chiaretti B, Tosoni M. Prevalence and incidence of hepatitis B virus, hepatitis C virus and human immunodeficiency virus among personnel and patients of a psychiatric hospital. Eur J Epidemiol 1995; 11: 239–242. [PMID: 7672084 DOI: 10.1007/BF01719496]
- Gibas A, Blewett DR, Schoenfeld DA, Dienstag JL. Prevalence and incidence of viral hepatitis in health workers in the prehepatitis B vaccination era. Am J Epidemiol 1992; 136: 603–610. [PMID: 1442723 DOI: 10.1093/oxfordjournals.aje.a116538]
- Gershon RRM, Sherman M, Mitchell C, Vlahov D, Erwin MJ, Lears MK, Felknor S, Lubelczyk RA, Alter MJ. Prevalence and risk factors for bloodborne exposure and

- infection in correctional healthcare workers. Infect Control Hosp Epidemiol 2007; 28: 24–30. [PMID: 17230384 DOI: 10.1086/510813]
- Bilounga Ndongo C, Eteki L, Siedner M, Mbaye R, Chen J, Ntone R, Donfack O, Bongwong B, Essaka Evoue R, Zeh F, Njouom R, Nguefack-Tsague G, Etoundi Mballa GA, Biwole Sida M, Boum Y. Prevalence and vaccination coverage of Hepatitis B among healthcare workers in Cameroon: A national seroprevalence survey. J Viral Hepat 2018; 25: 1582–1587. [PMID: 30047565 DOI: 10.1111/jvh.12974]
- Ahmad Akhoundi MS, Momeni N, Norouzi M, Ghalichi L, Shamshiri AR, Alavian SM, Poortahmasebi V, Jazayeri SM. Prevalence of blood-borne viruses among Iranian dentists: Results of a national survey. Int J Occup Med Environ Health 2015; 28: 593–602. [PMID: 26190734 DOI: 10.13075/ijomeh.1896.00324]
- Zuhaib Khan M, Saqib S, Irtiza Hussain Shah Gardyzi S, Qazi J. Prevalence of Blood-Borne Viruses in Health Care Workers of a Northern District in Pakistan: Risk Factors and Preventive Behaviors. Can J Infect Dis Med Microbiol 2016; 2016: 2393942. [PMID: 27525015 DOI: 10.1155/2016/2393942]
- 142 Pećenková I, Helcl J, Ackermann M, Némećek V, Svandová E. Prevalence of HBsAg and anti HBs in hospital personnel. J Hyg Epidemiol Microbiol Immunol 1978; 22: 470–476.
- Abiola A-HO, Agunbiade AB, Badmos KB, Lesi AO, Lawal AO, Alli QO. Prevalence of HBsAg, knowledge, and vaccination practice against viral hepatitis B infection among doctors and nurses in a secondary health care facility in Lagos state, South-western Nigeria. Pan Afr Med J 2016; 23: 160. [PMID: 27303576 DOI: 10.11604/pamj.2016.23.160.8710]
- 144 Shabanah W, Bukhari A, Alandijani A, Alyasi A, Youssef A-R. Prevalence of HBV and Assessment of Hepatitis B Vaccine Response among Dental Health Care Workers in Dental Teaching Hospital, Umm Al-Qura University, Saudi Arabia. Egypt J Immunol 2019; 26: 11–17.
- 145 Ganju SA, Goel A. Prevalence of HBV and HCV infection among health care workers (HCWs). J Commun Dis 2000; 32: 228–230.
- Abdul Mujeeb S, Zuberi SJ, Lodi TZ, Mehmood K. Prevalence of HBV infection in health care personnel. J Pak Med Assoc 1994; 44: 265.
- de Liefde B, Miller JA, Salmond CE. Prevalence of hepatitis B among school dental nurses. N Z Med J 1987; 100: 545–547.
- Bellíssimo-Rodrigues WT, Machado AA, Bellíssimo-Rodrigues F, Nascimento MP, Figueiredo JFC. Prevalence of hepatitis B and C among Brazilian dentists. Infect Control Hosp Epidemiol 2006; 27: 887–888. [PMID: 16874655 DOI: 10.1086/506407]
- Storch GA, Perrillo RP, Miller JP, Benz B, Kahn RA. Prevalence of hepatitis B antibodies in personnel at a children's hospital. Pediatrics 1985; 76: 29–35.

- Malm DN, Mathias RG, Turnbull KW, Kettyls GD, Jenkins LC. Prevalence of hepatitis B in anaesthesia personnel. Can Anaesth Soc J 1986; 33: 167–172. [PMID: 2870787 DOI: 10.1007/BF03010827]
- Topka D, Theodosopoulos L, Elefsiniotis I, Saroglou G, Brokalaki H. Prevalence of hepatitis B in haemodialysis nursing staff in Athens. J Ren Care 2012; 38: 76–81. [PMID: 21917123 DOI: 10.1111/j.1755-6686.2011.00247.x]
- Kefenie H, Desta B, Abebe A, Conti S, Pasquini P. Prevalence of hepatitis B infection among hospital personnel in Addis Ababa (Ethiopia). Eur J Epidemiol 1989; 5: 462–467. [PMID: 2606175 DOI: 10.1007/BF00140142]
- Abbas AM, Denton MD, Francis RA. Prevalence of hepatitis B markers among district general hospital staff. Br Med J (Clin Res Ed) 1985; 290: 1212. [PMID: 3921155 DOI: 10.1136/bmj.290.6476.1212]
- Romieu I, Sow I, Lu S, Laroque G, Prince-David M, Romet-Lemonne JL. Prevalence of hepatitis B markers among hospital workers in Senegal. J Med Virol 1989; 27: 282–287. [PMID: 2786051 DOI: 10.1002/jmv.1890270405]
- Zayet S, Osman M, Besghaier H, Ben Moussa M, Belhadj A, Bellaaj R. [Prevalence of hepatitis B markers and vaccination status of healthcare personnel: Experience of the Tunis Military Hospital]. Rev Epidemiol Sante Publique 2019; 67: 261–266. [PMID: 31060884 DOI: 10.1016/j.respe.2019.03.120]
- Holt PA, Goodall B, Lees EM, Hambling MH. Prevalence of hepatitis B markers in patients and staff in a hospital for the mentally handicapped. J Hosp Infect 1986; 7: 26–33. [PMID: 2870105 DOI: 10.1016/0195-6701(86)90023-x]
- Okwesili AN, Onuigwe FU, Ibrahim K, Buhari H, Ibrahim A, Jafaru H, Erhabor O, Onuigwe FU, Isaac Z, Ahmed MH, Mainasara MY, Adias TC, Yeldu MH, Uko EK, Udoma F. Prevalence of Hepatitis B surface antigen among biomedical students of African descent in Usmanu Danfodiyo University, Sokoto, Nigeria. Hum Antibodies 2015; 23: 57–62. [PMID: 27472863 DOI: 10.3233/HAB-150282]
- King SM, Jarvis DA, Shaw J, Shannon HS, Middleton PJ, Gold R, Ford-Jones EL. Prevalence of hepatitis B surface antigen and antibody (hepatitis B virus markers) in personnel at a children's hospital. Am J Epidemiol 1987; 126: 480–483. [PMID: 3618579 DOI: 10.1093/oxfordjournals.aje.a114679]
- Tan TC, Vadivale M, Ong CN. Prevalence of hepatitis B surface antigen and antibody among health care employees in Negri Sembilan, Malaysia, 1989. Asia Pac J Public Health 1992; 6: 134–139. [PMID: 1342800 DOI: 10.1177/101053959200600303]
- Hakre S, Reyes L, Bryan JP, Cruess D. Prevalence of hepatitis B virus among health care workers in Belize, Central America. Am J Trop Med Hyg 1995; 53: 118–122. [PMID: 7677211 DOI: 10.4269/ajtmh.1995.53.118]

- Mueller A, Stoetter L, Kalluvya S, Stich A, Majinge C, Weissbrich B, Kasang C. Prevalence of hepatitis B virus infection among health care workers in a tertiary hospital in Tanzania. BMC Infect Dis 2015; 15: 386. [PMID: 26399765 DOI: 10.1186/s12879-015-1129-z]
- Kisangau EN, Awour A, Juma B, Odhiambo D, Muasya T, Kiio SN, Too R, Lowther SA. Prevalence of hepatitis B virus infection and uptake of hepatitis B vaccine among healthcare workers, Makueni County, Kenya 2017. J Public Health (Oxf) 2019; 41: 765–771. [PMID: 30351408 DOI: 10.1093/pubmed/fdy186]
- Weiss Y, Rabinovitch M, Cahaner Y, Noy D, Siegman-Igra Y. Prevalence of hepatitis B virus markers among hospital personnel in Israel: correlation with some risk factors. J Hosp Infect 1994; 26: 211–218. [PMID: 7911487 DOI: 10.1016/0195-6701(94)90044-2]
- 164 Struve J, Aronsson B, Frenning B, Forsgren M, Weiland O. Prevalence of hepatitis B virus markers and exposure to occupational risks likely to be associated with acquisition of hepatitis B virus among health care workers in Stockholm. J Infect 1992; 24: 147–156. [PMID: 1569305 DOI: 10.1016/0163-4453(92)92824-3]
- 165 Kashiwagi S, Hayashi J, Ikematsu H, Nomura H, Kajiyama W, Ikematsu W, Shingu T, Hayashida K, Kaji M. Prevalence of immunologic markers of hepatitis A and B infection in hospital personnel in Miyazaki Prefecture, Japan. Am J Epidemiol 1985; 122: 960–969. [PMID: 4061446 DOI: 10.1093/oxfordjournals.aje.a114200]
- Rehman K, Khan AA, Haider Z, Shahzad A, Iqbal J, Khan RU, Ahmad S, Siddiqui A, Syed SH. Prevalence of seromarkers of HBV and HCV in health care personnel and apparently healthy blood donors. J Pak Med Assoc 1996; 46: 152–154.
- Nayyar C, Saksena R, Manchanda V. Prevalence of transfusion-transmitted viral pathogens among health-care workers and risk mitigation programme in a paediatric tertiary care hospital. Indian J Med Microbiol 2017; 35: 296–298. [PMID: 28681826 DOI: 10.4103/ijmm.IJMM_15_133]
- Bass BD, Andors L, Pierri LK, Pollock JJ. Quantitation of hepatitis B viral markers in a dental school population. J Am Dent Assoc 1982; 104: 629–632. [PMID: 6951863 DOI: 10.14219/jada.archive.1982.0281]
- Méndez-Sánchez N, Motola-Kuba D, Zamora-Valdés D, Sánchez-Lara K, Ponciano-Rodríguez G, Uribe-Ramos MH, Vásquez-Fernández F, Lezama-Mora J, Pérez-Sosa JA, Baptista-González HA, Uribe M. Risk factors and prevalence of hepatitis virus B and C serum markers among nurses at a tertiary-care hospital in Mexico City, Mexico: a descriptive study. Ann Hepatol 2006; 5: 276–280.
- 170 Kuruuzum Z, Yapar N, Avkan-Oguz V, Aslan H, Ozbek OA, Cakir N, Yuce A. Risk of infection in health care workers following occupational exposure to a noninfectious or unknown source. Am J Infect Control 2008; 36: e27-31. [PMID: 19084160 DOI: 10.1016/j.ajic.2008.05.012]

- 171 Singh G, Singh MP, Walia I, Sarin C, Ratho RK. Screening for hepatitis B and C viral markers among nursing students in a tertiary care hospital. Indian J Med Microbiol 2010; 28: 78–79. [PMID: 20061775 DOI: 10.4103/0255-0857.58740]
- 172 Ziraba AK, Bwogi J, Namale A, Wainaina CW, Mayanja-Kizza H. Sero-prevalence and risk factors for hepatitis B virus infection among health care workers in a tertiary hospital in Uganda. BMC Infect Dis 2010; 10: 191. [PMID: 20587047 DOI: 10.1186/1471-2334-10-191]
- 173 Vadivale M, Tan TC, Ong CN. Sero-prevalence of hepatitis B infection among dental professionals. Singapore Med J 1992; 33: 367–369.
- Yizengaw E, Getahun T, Geta M, Mulu W, Ashagrie M, Hailu D, Tedila S. Seroprevalence of hepatitis B virus infection and associated factors among health care workers and medical waste handlers in primary hospitals of North-west Ethiopia. BMC Res Notes 2018; 11: 437. [PMID: 29970163 DOI: 10.1186/s13104-018-3538-8]
- Taishete S, Chowdhary A. Seroepidemiological survey of health care workers in Maharashtra. Indian J Med Microbiol 2016; 34: 237–240. [PMID: 27080782 DOI: 10.4103/0255-0857.180355]
- Wijayadi T, Sjahril R, Turyadi null, Ie SI, Wahyuni R, Pattelongi I, Massi MN, Yusuf I, Muljono DH. Seroepidemiology of HBV infection among health-care workers in South Sulawesi, Indonesia. BMC Infect Dis 2018; 18: 279. [PMID: 29914398 DOI: 10.1186/s12879-018-3190-x]
- Daw MA, Siala IM, Warfalli MM, Muftah MI. Seroepidemiology of hepatitis B virus markers among hospital health care workers. Analysis of certain potential risk factors. Saudi Med J 2000; 21: 1157–1160.
- Barash C, Conn MI, DiMarino AJ, Marzano J, Allen ML. Serologic hepatitis B immunity in vaccinated health care workers. Arch Intern Med 1999; 159: 1481–1483. [PMID: 10399900 DOI: 10.1001/archinte.159.13.1481]
- 179 Ivanova L, Kyoseva M, Metodiev K, Stojkova J. Serologic Hepatitis B Virus Immunity in Health Care Workers. Eur J Inflamm 2013; 11: 733–738. [DOI: 10.1177/1721727X1301100316]
- de Paiva EMM, Tiplle AFV, de Paiva Silva E, de Paula Cardoso D das D. Serological markers and risk factors related to hepatitis B virus in dentists in the Central West region of Brazil. Braz J Microbiol 2008; 39: 251–256. [PMID: 24031211 DOI: 10.1590/S1517-838220080002000010]
- Domínguez A, Urbiztondo L, Bayas JM, Borrás E, Broner S, Campins M, Costa J, Esteve M, Working Group for the Study of the Immune Status in Healthcare Workers of Catalonia. Serological survey of hepatitis B immunity in healthcare workers in Catalonia (Spain). Hum Vaccin Immunother 2017; 13: 435–439. [PMID: 28027005 DOI: 10.1080/21645515.2017.1264791]

- Batista SMF, Andreasi MSA, Borges AMT, Lindenberg ASC, Silva AL, Fernandes TD, Pereira EF, Basmage EAM, Cardoso DDP. Seropositivity for hepatitis B virus, vaccination coverage, and vaccine response in dentists from Campo Grande, Mato Grosso do Sul, Brazil. Mem Inst Oswaldo Cruz 2006; 101: 263–267. [PMID: 16862319 DOI: 10.1590/s0074-02762006000300006]
- 183 Chiarakul S, Eunumjitkul K, Vuttiopas S, Vorapimol A-R, Kaewkungwal J, Poovorawan Y. Seroprevalence and risk factors of hepatitis B virus infection among health care workers at the Institute of Neurology. J Med Assoc Thai 2007; 90: 1536–1545.
- 184 Kardam P, Mehendiratta M, Rehani S, Kumra M. Seroprevalence and vaccination status of hepatitis B amongst dental health-care workers in North India. Indian J Gastroenterol 2014; 33: 190–191. [PMID: 23996799 DOI: 10.1007/s12664-013-0370-x]
- Deby G, Malanda CB, Bossali F, Atipo-Ibara BI, Bokilo-Dzia A, Ahoui-Apendi C, Ngami RS, Ibara JR. Seroprévalence des marqueurs des virus des hepatites B et C chez le personnel soignant du CHU de Brazzaville. Journal Africain d'Hépato-Gastroentérologie 2015; 4: 179–183. [DOI: 10.1007/s12157-015-0617-5]
- Alqahtani JM, Abu-Eshy SA, Mahfouz AA, El-Mekki AA, Asaad AM. Seroprevalence of hepatitis B and C virus infections among health students and health care workers in the Najran region, southwestern Saudi Arabia: the need for national guidelines for health students. BMC Public Health 2014; 14: 577. [PMID: 24912684 DOI: 10.1186/1471-2458-14-577]
- Werman HA, Gwinn R. Seroprevalence of hepatitis B and hepatitis C among rural emergency medical care personnel. Am J Emerg Med 1997; 15: 248–251. [PMID: 9148978 DOI: 10.1016/s0735-6757(97)90006-1]
- 188 Sarwar J, Gul N, Idris M, Anis-ur-Rehman null, Farid J, Adeel MY. Seroprevalence of hepatitis B and hepatitis C in health care workers in Abbottabad. J Ayub Med Coll Abbottabad 2008; 20: 27–29.
- Alese OO, Alese MO, Ohunakin A, Oluyide PO. Seroprevalence of Hepatitis B Surface Antigen and Occupational Risk Factors Among Health Care Workers in Ekiti State, Nigeria. J Clin Diagn Res 2016; 10: LC16-18. [PMID: 27042489 DOI: 10.7860/JCDR/2016/15936.7329]
- 190 Ajayi AO, Komolafe AO, Ajumobi K. Seroprevalence of hepatitis B surface antigenemia among health care workers in a Nigerian tertiary health institution. Niger J Clin Pract 2007; 10: 287–289.
- 191 Shin B-M, Yoo HM, Lee AS, Park SK. Seroprevalence of hepatitis B virus among health care workers in Korea. J Korean Med Sci 2006; 21: 58–62. [PMID: 16479066 DOI: 10.3346/jkms.2006.21.1.58]

- 192 Shao ER, Mboya IB, Gunda DW, Ruhangisa FG, Temu EM, Nkwama ML, Pyuza JJ, Kilonzo KG, Lyamuya FS, Maro VP. Seroprevalence of hepatitis B virus infection and associated factors among healthcare workers in northern Tanzania. BMC Infect Dis 2018; 18: 474. [PMID: 30241503 DOI: 10.1186/s12879-018-3376-2]
- 193 M.kh B, Ayoub K, A M, E G. SEROPREVALENCE OF HEPATITIS B VIRUS INFECTION AND VACCINATION COMPLIANCE AMONG HEALTH CARE WORKERS IN FARS PROVINCE, IRAN. 2010; 5: 45–50.
- Marena C, Bignamini A, Meloni F, Mastretti A, Agnusdei A, Pelissero G. Seroprevalence of hepatitis B virus markers and risk factors in patients and staff of an Italian residential institution for the mentally disabled. J Clin Epidemiol 1996; 49: 1009–1012. [PMID: 8780609 DOI: 10.1016/0895-4356(96)00120-5]
- 195 Shoaei P, Lotfi N, Hassannejad R, Yaran M, Ataei B, Kassaian N, Foroughifar M, Adibi P. Seroprevalence of Hepatitis C Infection among Laboratory Health Care Workers in Isfahan, Iran. Int J Prev Med 2012; 3: S146-149.
- 196 Shidrawi R, Ali Al-Huraibi M, Ahmad Al-Haimi M, Dayton R, Murray-Lyon IM. Seroprevalence of markers of viral hepatitis in Yemeni healthcare workers. J Med Virol 2004; 73: 562–565. [PMID: 15221900 DOI: 10.1002/jmv.20126]
- 197 Ozsoy MF, Oncul O, Cavuslu S, Erdemoglu A, Emekdas G, Pahsa A. Seroprevalences of hepatitis B and C among health care workers in Turkey. J Viral Hepat 2003; 10: 150–156. [PMID: 12614472 DOI: 10.1046/j.1365-2893.2003.00404.x]
- 198 Andrew EC, Gibney KB, Denholm J, Leder K. Seroprotection to vaccine-preventable diseases among workers at a Victorian tertiary hospital. Aust N Z J Public Health 2016; 40: 284–289. [PMID: 27027875 DOI: 10.1111/1753-6405.12508]
- 199 Carneiro AF, Daher RR. Serum prevalence of hepatitis B virus in anesthesiologists. Rev Bras Anestesiol 2003; 53: 672–679. [PMID: 19475322 DOI: 10.1590/s0034-70942003000500015]
- Ingerslev J, Mortensen E, Rasmussen K, Jørgensen J, Skinhøj P. Silent hepatitis-B immunization in laboratory technicians. Scand J Clin Lab Invest 1988; 48: 333–336. [PMID: 3238313 DOI: 10.3109/00365518809167504]
- 201 Shrestha SK, Bhattarai MD. Study of hepatitis B among different categories of health care workers. J Coll Physicians Surg Pak 2006; 16: 108–111. [PMID: 16499802 DOI: 2.2006/JCPSP.108111]
- Siew C, Gruninger SE, Mitchell EW, Burrell KH. Survey of hepatitis B exposure and vaccination in volunteer dentists. J Am Dent Assoc 1987; 114: 457–459. [PMID: 2951418 DOI: 10.14219/jada.archive.1987.0109]
- 203 Amsalu A, Worku M, Tadesse E, Shimelis T. The exposure rate to hepatitis B and C viruses among medical waste handlers in three government hospitals, southern

- Ethiopia. Epidemiol Health 2016; 38: e2016001. [PMID: 26797221 DOI: 10.4178/epih/e2016001]
- Saberifiroozi M, Gholamzadeh S, Serati A-R. The long-term immunity among health care workers vaccinated against hepatitis B virus in a large referral hospital in southern Iran. Arch Iran Med 2006; 9: 204–207.
- 205 Himmelreich H, Rabenau HF, Rindermann M, Stephan C, Bickel M, Marzi I, Wicker S. The management of needlestick injuries. Dtsch Arztebl Int 2013; 110: 61–67. [PMID: 23437024 DOI: 10.3238/arztebl.2013.0061]
- 206 Martin DB, Jannausch M, Skendzel LP. The prevalence of hepatitis B in employees of small, rural hospitals--implications for vaccine administration. Infect Control 1986; 7: 64–66. [PMID: 3633880 DOI: 10.1017/s0195941700063906]
- Savage CM, Christopher PJ, Murphy AM, Crewe EB, Lossin C. The prevalence of hepatitis B markers in dental care personnel at the United Dental Hospital of Sydney. Aust Dent J 1984; 29: 75–79. [PMID: 6589997 DOI: 10.1111/j.1834-7819.1984.tb06039.x]
- Fligner DJ, Wigder HN, Harter PM, Fliegelman RM, Jewell M, Perlman P. The prevalence of hepatitis B serologic markers in suburban paramedics. J Emerg Med 1989; 7: 41–45. [PMID: 2784811 DOI: 10.1016/0736-4679(89)90409-5]
- Iserson KV, Criss E, Barrett S, Clark M, Moorhead J, Stair T, Trott A. The prevalence of hepatitis B serological markers in emergency physicians. Am J Emerg Med 1984; 2: 394–398. [PMID: 6518048 DOI: 10.1016/0735-6757(84)90040-8]
- Berry AJ, Isaacson IJ, Hunt D, Kane MA. The prevalence of hepatitis B viral markers in anesthesia personnel. Anesthesiology 1984; 60: 6–9. [PMID: 6140888 DOI: 10.1097/00000542-198401000-00003]
- 211 Goh KT, Chan YW, Wong LY, Kong KH, Oon CJ, Guan R. The prevalence of hepatitis B virus markers in dental personnel in Singapore. Trans R Soc Trop Med Hyg 1988; 82: 908–910. [PMID: 3256997 DOI: 10.1016/0035-9203(88)90038-7]
- 212 Sinclair ME, Ashby MW, Kurtz JB. The prevalence of serological markers for hepatitis B virus infection amongst anaesthetists in the Oxford region. Anaesthesia 1987; 42: 30–32. [PMID: 3826571 DOI: 10.1111/j.1365-2044.1987.tb02941.x]
- Wickliffe CW, Galambos JT, Rivers S, Blitch L. The risk of hepatitis B to hospital personnel. A prospective study among personnel exposed to patients without isolation precaution. Am J Dig Dis 1978; 23: 293–296. [PMID: 665621 DOI: 10.1007/BF01072408]
- Reingold AL, Kane MA, Murphy BL, Checko P, Francis DP, Maynard JE. Transmission of hepatitis B by an oral surgeon. J Infect Dis 1982; 145: 262–268. [PMID: 7054329 DOI: 10.1093/infdis/145.2.262]

- 215 Techasathit W, Ratanasuwan W, Sonjai A, Sangsiriwut K, Anekthananon T, Suwanagool S. Vaccination against hepatitis B virus: are Thai medical students sufficiently protected? J Med Assoc Thai 2005; 88: 329–334.
- 216 Meriki HD, Tufon KA, Anong DN, Tony NJ, Kwenti TE, Bolimo AF, Kouanou YS, Nkuo-Akenji T. Vaccine uptake and immune responses to HBV infection amongst vaccinated and non-vaccinated healthcare workers, household and sexual contacts to chronically infected HBV individuals in the South West Region of Cameroon. PLoS One 2018; 13: e0200157. [PMID: 30011286 DOI: 10.1371/journal.pone.0200157]
- Blanloeil Y, Gassin M, Magerand P, Dixneuf B, Souron R. [Viral hepatitis B. Risk for the anesthetist]. Ann Fr Anesth Reanim 1985; 4: 398–402. [PMID: 3907431 DOI: 10.1016/s0750-7658(85)80268-9]
- Thomas DL, Factor SH, Kelen GD, Washington AS, Taylor E, Quinn TC. Viral hepatitis in health care personnel at The Johns Hopkins Hospital. The seroprevalence of and risk factors for hepatitis B virus and hepatitis C virus infection. Arch Intern Med 1993; 153: 1705–1712.
- Vardas E, Ross MH, Sharp G, McAnerney J, Sim J. Viral hepatitis in South African healthcare workers at increased risk of occupational exposure to blood-borne viruses. J Hosp Infect 2002; 50: 6–12. [PMID: 11825045 DOI: 10.1053/jhin.2001.1143]
- 220 Pepe PE, Hollinger FB, Troisi CL, Heiberg D. Viral hepatitis risk in urban emergency medical services personnel. Ann Emerg Med 1986; 15: 454–457. [PMID: 3954182 DOI: 10.1016/s0196-0644(86)80187-1]
- Birguel J, Ndong JG, Akhavan S, Moreau G, Sobnangou JJ, Aurenche C, Lunel F, Thibault V, Huraux JM. [Viral markers of hepatitis B, C and D and HB vaccination status of a health care team in a rural district of Cameroon]. Med Trop (Mars) 2011; 71: 201–202.
- 222 Saç R, Taşar MA, Yalaki Z, Güneylioğlu MM, Özsoy G, Karadağlı S, Göçmen S, Akbaş N, Alioğlu B. HEPATITIS A, HEPATITIS B, MEASLES, MUMPS, RUBELLA AND VARICELLA SEROPREVALENCE IN TURKISH ADOLESCENT NURSING STUDENTS. NOBEL MEDICUS; : 8.
- 223 Gebremariam AA, Tsegaye AT, Shiferaw YF, Reta MM, Getaneh A. Seroprevalence of Hepatitis B Virus and Associated Factors among Health Professionals in University of Gondar Hospital, Northwest Ethiopia. Adv Prev Med 2019; 2019: 7136763. [PMID: 30941224 DOI: 10.1155/2019/7136763]
- 224 Shah D, Jain S, Khot A, gharat amit, rajdhyaksha girish, Rathi P. Low prevalence of hepatitis B and C infections among the healthcare workers despite low vaccination coverage for hepatitis B in Mumbai. Indian Journal of Medical Sciences 2017; 69. [DOI: 10.18203/issn.0019-5359.IndianJMedSci20170483]

- Bhattacharya S, Chatterjee S, Goel G, Mahajan A, Ramanan VR, Chandy M. Epidemiology of sharps injury and splash exposure in an oncology care center in eastern India. Infect Control Hosp Epidemiol 2014; 35: 1201–1203. [PMID: 25111936 DOI: 10.1086/677639]
- 226 Leyden JJ, Smith JG, Chalker DK, Rea TH, Tomecki KJ, Levitan M. Serologic survey for markers of hepatitis B infection in dermatologists. J Am Acad Dermatol 1985; 12: 676–680. [PMID: 3989028 DOI: 10.1016/s0190-9622(85)70093-x]
- 227 Hurlen B, Jonsen J, Aas E. Viral hepatitis in dentists in Norway. Acta Odontol Scand 1980; 38: 321–324. [PMID: 6937101 DOI: 10.3109/00016358009033599]

Supplementary Table 1. Preferred reporting items for systematic reviews and meta-analyses checklist

Section/topic	#	Checklist item	Reported on page #
TITLE			
Title	1	Identify the report as a systematic review, meta-analysis, or both.	1
ABSTRACT			
Structured summary	2	Provide a structured summary including, as applicable: background; objectives; data sources; study eligibility criteria, participants, and interventions; study appraisal and synthesis methods; results; limitations; conclusions and implications of key findings; systematic review registration number.	2
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of what is already known.	7-8
Objectives	4	Provide an explicit statement of questions being addressed with reference to participants, interventions, comparisons, outcomes, and study design (PICOS).	8
METHODS			
Protocol and registration	5	Indicate if a review protocol exists, if and where it can be accessed (e.g., Web address), and, if available, provide registration information including registration number.	9
Eligibility criteria			9
Information sources 7 Describe all information sources (e.g., databases with dates of coverage, contact with study authors to identify additional studies) in the search and date last searched.		9-10	
Search 8 Present full electronic search strategy for at least one database, including any limits used, such that it could be repeated.		Appendix	
Study selection	9	State the process for selecting studies (i.e., screening, eligibility, included in systematic review, and, if applicable, included in the meta-analysis).	10
Data collection process	* * * * * * * * * * * * * * * * * * *		10
Data items	11	List and define all variables for which data were sought (e.g., PICOS, funding sources) and any assumptions and simplifications made.	10

Risk of bias in individual	12	escribe methods used for assessing risk of bias of individual studies (including specification of whether	
studies this was done at the study or outcome level), and how this information is to be used in any data synthesis.			
Summary measures 13 State the principal summary measures (e.g., risk ratio, difference in means).		11-12	
Synthesis of results 14 Describe the methods of handling data and combining results of studies, if done, including measures of consistency (e.g., I ²) for each meta-analysis.		11-12	

Section/topic	#	Checklist item	Reported on page #
Risk of bias across studies	15	Specify any assessment of risk of bias that may affect the cumulative evidence (e.g., publication bias, selective reporting within studies).	12
Additional analyses	16	Describe methods of additional analyses (e.g., sensitivity or subgroup analyses, meta-regression), if done, indicating which were pre-specified.	12
RESULTS			
Study selection	17	Give numbers of studies screened, assessed for eligibility, and included in the review, with reasons for exclusions at each stage, ideally with a flow diagram.	12
Study characteristics	18		
Risk of bias within studies	19	Present data on risk of bias of each study and, if available, any outcome level assessment (see item 12).	
Results of individual studies	20	For all outcomes considered (benefits or harms), present, for each study: (a) simple summary data for each intervention group (b) effect estimates and confidence intervals, ideally with a forest plot.	
Synthesis of results	21	Present results of each meta-analysis done, including confidence intervals and measures of consistency.	13-16
Risk of bias across studies	22	Present results of any assessment of risk of bias across studies (see Item 15).	13
Additional analysis	Additional analysis 23 Give results of additional analyses, if done (e.g., sensitivity or subgroup analyses, meta-regression [see Item 16]).		13-16
DISCUSSION			
Summary of evidence	hary of evidence 24 Summarize the main findings including the strength of evidence for each main outcome; consider their relevance to key groups (e.g., healthcare providers, users, and policy makers).		17
Limitations	25	Discuss limitations at study and outcome level (e.g., risk of bias), and at review-level (e.g., incomplete retrieval of identified research, reporting bias).	

Conclusions	26	Provide a general interpretation of the results in the context of other evidence, and implications for future research.	20	
FUNDING				
Funding 27 Describe sources of funding for the systematic review and other support (e.g., supply of data); role of funders for the systematic review.		13		

From: Moher D, Liberati A, Tetzlaff J, Altman DG, The PRISMA Group (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. PLoS Med 6(7): e1000097. doi:10.1371/journal.pmed1000097

Supplementary Table 2. Search strategy in Medline (Pubmed)

Search	Virus	
#1	Hepatitis b OR Viral hepatitis b OR Hepatitis b virus OR HBV	
#2	Health care worker* OR HCW* OR Healthcare worker* OR Health worker*	
OR Health personnel* OR Health staff OR Health officer* OR Health		
	practitioner* OR Medical personnel* OR Medical Staff OR Hospital OR	
	Medical Staff OR Medical Administrator* OR Medical Secretar* OR	
	Emergency Medical Dispatcher* OR Medical Laboratory Personnel OR	
	Hospital Personnel OR Nurs* OR Midwive* OR Physician* OR Surgeon* OR	
	Doctor* OR Dentist* OR Technician* OR Auxiliar* OR Therapist* OR	
	Anatomist* OR Anesthetist* OR Anesthesiologist* OR Audiologist* OR	
	Caregiver* OR Coroner* OR Orthodontist* OR Doulas OR Practitioner* OR	
	Nutritionist* OR Optometrist* OR Pharmacist* OR Allergist* OR	
	Anesthesiologist* OR Cardiologist* OR Dermatologist* OR Endocrinologist*	
	OR Gastroenterologist* OR Geriatrician* OR Hospitalist* OR Nephrologist*	
	OR Neurologist* OR Oncologist* OR Ophthalmologist* OR Otolaryngologist*	
	OR Pathologist* OR Pediatrician* OR Physiatrist* OR Pulmonologist* OR	
	Radiologist* OR Rheumatologist* OR Urologist* OR Veterinarian*	
#3	#2 in [Title/Abstract]	
#4	Prevalence OR Detection OR Epidemiology OR Survey OR Seroprevalence OR	
	Surveillance OR Serological	
#5	#1 AND #3 AND #4	
#6	Limit #5 to English and French	

Supplementary Table 3. Items for risk of bias assessment

Hoy et al. tool for cross sectional studies	Yes (1)/No (0)
External validity	
1. Was the study's target population a close representation of the national	1
population in relation to hepatitis B virus prevalence in healthcare workers?	
2. Was the sampling frame a true or close representation of the study	1
population?	
3. Was some form of random selection used to select the sample, OR was a	1
census undertaken?	
4. Was the likelihood of nonresponse bias minimal (> 70%)?	1
Internal validity	1
5. Were data collected directly from the subjects (as opposed to a proxy)?	1
6. Was an acceptable case definition used in the study?	1
7. Was the study viral detection assay shown to have validity and reliability?	1
8. Was the same mode type of sample collected for all subjects?	1
9. Was the length of the length of the study period > 1 year?	1
10. Were the numerator(s) and denominator(s) for the hepatitis B prevalence	1
appropriate?	
Total score	10
Interpretation of the risk of bias tool	
• 7-10: Low risk of bias	
• 4-6: Moderate risk of bias	
• 0-3: High risk of bias	

N°	Author, Year	Title	Reason of exclusion
1	Aarnio, 2001	Glove perforation rate in vascular surgerya comparison	No data on HBV serological
		between single and double gloving.	markers prevalence
2	Aaron, 2017	Hepatitis B vaccination coverage among healthcare	No data on HBV serological
		workers at national hospital in Tanzania: how much, who and why?	markers prevalence
3	Abara, 2017	Hepatitis B vaccination, screening, and linkage to care: Best practice advice from the American College of Physicians and the Centers for Disease Control and Prevention.	Review
4	Abdela, 2016	Assessment of knowledge, attitudes and practices toward prevention of hepatitis B virus infection among students of medicine and health sciences in Northwest Ethiopia.	No Laboratory-Confirmed data
5	Abebaw, 2017	Hepatitis B virus vaccination status and associated factors among health care workers in Shashemene Zonal Town, Shashemene, Ethiopia: a cross sectional study.	No Laboratory-Confirmed data
6	Abeje, 2015	Hepatitis B vaccine knowledge and vaccination status among health care workers of Bahir Dar City Administration, Northwest Ethiopia: a cross sectional study.	No Laboratory-Confirmed data
7	Abiteboul, 1990	Prevention of hepatitis B in Assistance Publique Hospitals of Paris results after seven years' vaccination in occupational health department.	No abstract and full text available
8	Abiye, 2019	Health professionals' acceptance and willingness to pay for hepatitis B virus vaccination in Gondar City Administration governmental health institutions, Northwest Ethiopia.	No data on HBV serological markers prevalence
9	Abkar, 2013	Unsafe injection practices in Hodeidah governorate, Yemen.	No Laboratory-Confirmed data
10	Abraham, 2019	Universal hepatitis B screening in a high risk community.	No abstract and full text available
11	Acevedo, 2016	Association of vaccination coverage with sociodemographic factors in workers of primary health care centers of Cordoba, Argentina.	Study not in English or French
12	Acharga, 2008	Does the level of hepatitis B virus vaccination in health-care workers need improvement?	Comment on an article
13	Acharya, 2002	Incidental detection of hepatitis B surface antigen: a growing concern for the Indian physician.	No abstract and full text available
14	Acharya, 2013	Awareness and practices of standard precautions for infection control among nurses in a tertiary care hospital.	No data on HBV serological markers prevalence
15	Adam, 2009	Accidental blood exposures among medical residents in Paris, France.	Comment on an article
16	Adebamowo, 1997	The immunization status and level of knowledge about hepatitis B virus infection among Nigerian surgeons.	No data on HBV serological markers prevalence
17	Adebowale, 2010	Updates from the 19th National Immunisation Conference for Health Care Workers Manchester: Conference Centre, December 2008.	Review
18	Adegboye, 1997	Glove utilization and reasons for poor compliance by health care workers in a Nigerian teaching hospital.	No data on HBV serological markers prevalence
19	Adjei, 2019	Chronic Hepatitis B stigma in Ghana: a qualitative study with patients and providers.	Comment on an article
20	Afridi, 2013	Needle stick injuriesrisk and preventive factors: a study among health care workers in tertiary care hospitals in Pakistan.	No data on HBV serological markers prevalence among HCWs

21	Agerton, 1995	Impact of the bloodborne pathogens standard on vaccination of healthcare workers with hepatitis B vaccine.	No data on HBV serological markers prevalence
22	Agustian, 2009	An estimation of the occupational risk of HBV, HCV and HIV infection among Indonesian health-care workers.	Sample with already known result
23	Ahmed Elmukashfi, 2012	Socio-demographic characteristics of health care workers and hepatitis B virus (HBV) infection in public teaching hospitals in Khartoum State, Sudan.	No data on HBV serological markers prevalence
24	Ahmed, 2009	Status and attitude towards hepatitis 'B' virus vaccination in staff of lady reading hospital Peshawar.	No Laboratory-Confirmed data
25	Ahmed, 2018	Assessing of policies and practices for occupational exposure to blood-borne viral infections in Tanta University Hospitals, Egypt.	No data on HBV serological markers prevalence
26	Akibu, 2018	Attitude and Vaccination Status of Healthcare Workers against Hepatitis B Infection in a Teaching Hospital, Ethiopia.	No data on HBV serological markers prevalence
27	Akibu, 2018	Attitude and Vaccination status of health care workers against hepatitis B infection in a teaching hospital, Ethiopia: Institution based cross sectional study.	No data on HBV serological markers prevalence
28	Akpinar-Elci, 2018	Needlestick injury prevention training among health care workers in the Caribbean.	No data on HBV serological markers prevalence
29	Al Awaidy, 2018	Assessment of safe injection practices in health facilities in Oman.	No data on HBV serological markers prevalence
30	Al Mahtab, 2014	An Outbreak of Acute Hepatitis in a Medical Facility of Bangladesh.	Only HBV positive samples included
31	Alavian, 2005	Concerns regarding dentists' compliance in hepatitis B vaccination and infection control.	No data on HBV serological markers prevalence
32	Alavian, 2008	Survey of the level of anti-HBs antibody titer in vaccinated Iranian general dentists.	Sample with already known result
33	Alavian, 2011	Hepatitis B infection in dentistry setting needs more attention.	No data on HBV serological markers prevalence
34	Alavian, 2011	Iranian dental students' knowledge of hepatitis B virus infection and its control practices.	No data on HBV serological markers prevalence
35	Albertoni, 1992	Needlestick injury in hospital personnel: a multicenter survey from central Italy. The Latium Hepatitis B Prevention Group.	No data on HBV serological markers prevalence
36	Aldakhil, 2019	Prevalence and associated factors for needlestick and sharp injuries (NSIs) among dental assistants in Jeddah, Saudi Arabia.	No data on HBV serological markers prevalence
37	Al-Dharrab, 2012	Assessment of hepatitis B vaccination and compliance with infection control among dentists in Saudi Arabia.	No Laboratory-Confirmed data
38	Al-Dwairi, 2007	Infection control procedures in commercial dental laboratories in Jordan.	No Laboratory-Confirmed data
39	Alexander, 1984	Hepatitis B infection in other hospital personnel.	No abstract and full text available
40	Alexander, 1990	Hepatitis B vaccination programs for health care personnel in U.S. hospitals.	No data on HBV serological markers prevalence
41	Al-Haddad, 2013	Hepatitis B vaccination among physicians, dentists and nurses in Bahrain.	No data on HBV serological markers prevalence among HCWs
42	Ali, 2001	Prevalence of hepatitis B & D viral infections among hospital personnel in Mosul-Iraq.	No abstract and full text available
43	Ali, 2005	Hepatitis B vaccination status and identification of risk factors for hepatitis B in health care workers.	No data on HBV serological markers prevalence among HCWs
44	Al-Jarba, 2003	Prevalence of hepatitis B virus and hepatitis C virus in health workers in 3 major hospitals in Aden, Republic of Yemen.	No abstract and full text available

45	Al-Khatib, 2006	Dentists' perceptions of occupational hazards and	No data on HBV serological
		preventive measures in East Jerusalem.	markers prevalence
46	Almuneef, 2006	Seroprevalence survey of varicella, measles, rubella, and	No data on HBV serological
		hepatitis A and B viruses in a multinational healthcare	markers prevalence among
		workforce in Saudi Arabia.	HCWs
47	Alner, 2008	Are residential and nursing homes adequately screening	No data on HBV serological
		overseas healthcare workers?	markers prevalence
48	Al-Rabeah, 2002	Infection control in the private dental sector in Riyadh.	No data on HBV serological
			markers prevalence among
			HCWs
49	Al-Ruhaimi, 1991	Response of dental professionals in Saudi Arabia towards	No abstract and full text
		hepatitis B vaccine and glove wearing.	available
50	Al-Tawil, 2013	Effect of infection control strategy on knowledge,	No Laboratory-Confirmed
		attitude and practice towards hepatitis B transmission and	data
		prevention in vulnerable populations.	
51	Alter, 1975	Health-care workers positive for hepatitis B surface	Only HBV positive samples
0.1	11101, 15 70	antigen. Are their contacts at risk?	included
52	Al-Thaqafy, 2013	Hepatitis B virus among Saudi National Guard	No data on HBV serological
J_	111 111aquij, 2013	Personnel: Seroprevalence and risk of exposure.	markers prevalence
53	Alzahrani, 2000	Needlestick injuries and hepatitis B virus vaccination in	Review
33	7 HZum um, 2000	health care workers.	Review
54	Al-zoughool, 2018	Injury and infection in dental clinics: Risk factors and	No data on HBV serological
54	Ai-zoughooi, 2016	prevention.	markers prevalence
55	Amarana 1007		•
33	Amerena, 1987	Hepatitis B virus: the risk to Australian dentists and	No data on HBV serological
		dental health care workers.	markers prevalence among
~ _	A : C 11	AGOGG WAS ONLY AND HARVER	HCWs
56	American College	ACOG Committee Opinion No. 489: Hepatitis B,	No abstract and full text
	of, 2011	hepatitis C, and human immunodeficiency virus	available
		infections in obstetrician-gynecologists.	
57	Anderson, 1982	Hepatitis B virus infections in laboratory staff.	No data on HBV serological
			markers prevalence
58	Angsuwathana,	The prevalence of hepatitis B in premarital counseling	No data on HBV serological
	2012	clinic at Siriraj Hospital.	markers prevalence among
			HCWs
59	Aniaku, 2019	Assessment of knowledge, attitude and vaccination status	Not possible to extract data
		of hepatitis B among nursing training students in ho,	on HBV serological markers
		ghana.	prevalence
60	Ankur, 2012	Very low prevalence of hepatitis B and C Co-infection in	No data on HBV serological
		HIV-positive medical inpatients in a tertiary care hospital	markers prevalence among
		in Agra (UP), Northern India.	HCWs
61	Ansa, 2002	Occupational risk of infection by human	No data on HBV serological
	,	immunodeficiency and hepatitis B viruses among health	markers prevalence
		workers in south-eastern Nigeria.	•
62	Ansa, 2019	Hepatitis B vaccine uptake among healthcare workers in	No data on HBV serological
	,	a referral hospital, Accra.	markers prevalence
63	Ansari, 2008	Assessment of knowledge of students of Zahedan	No data on HBV serological
		University of Medical Sciences about viral hepatitis	markers prevalence
		infections and related factors.	markers prevalence
64	Antono, 2010	Occupational risk for human immunodeficiency virus,	No data on HBV serological
	7 Intono, 2010	hepatitis B, and hepatitis C infection in health care	markers prevalence
			markers prevalence
65	A' (1 1-	workers in a teaching hospital in Indonesia.	No data on UDV sample size1
α		Compliance with universal precautions among medical	No data on HBV serological
03	Apisarnthanarak,	students in a Testions Come Contact in El. 11 1	
	2006	students in a Tertiary Care Center in Thailand.	markers prevalence
66		Hepatitis B virus infection in personnel of a general	Not possible to extract data
	2006		Not possible to extract data on HBV serological markers
66	2006 Arakawa, 1982	Hepatitis B virus infection in personnel of a general hospital.	Not possible to extract data on HBV serological markers prevalence
	2006	Hepatitis B virus infection in personnel of a general	Not possible to extract data on HBV serological markers

68	Arumugam, 2019	Educational intervention to increase hepatitis B	Not possible to extract data
		vaccination among housekeeping staff.	on HBV serological markers prevalence
69	Arya, 2001	Hepatitis B virus among Libyan health care workers.	No abstract and full text available
70	Askarian, 2006	Prevalence of needlestick injuries among medical	No data on HBV serological
		students at a university in Iran [2].	markers prevalence
71	Askarian, 2008	Body fluid exposure in nurses of Fars Province, southern Iran.	No data on HBV serological markers prevalence
72	Askarian, 2011	Precautions for health care workers to avoid hepatitis b and c virus infection.	Review
73	Askarian, 2012	Prevalence of needle stick injuries among dental, nursing and midwifery students in Shiraz, Iran.	No data on HBV serological markers prevalence
74	Askarian, 2006	The prevalence of needle stick injuries in medical, dental, nursing and midwifery students at the University Teaching Hospitals of Shiraz, Iran.	No data on HBV serological markers prevalence
75	Astbury, 1990	Infection risks in hospital staff from blood: hazardous injury rates and acceptance of hepatitis B immunization.	No data on HBV serological markers prevalence
76	Ataei, 2014	Knowledge, attitude, and performance of medical staff of teaching healthcare settings about hepatitis B and C in Isfahan, Iran.	No Laboratory-Confirmed data
77	Attaullah, 2011	Prevalence of HBV and HBV vaccination coverage in health care workers of tertiary hospitals of Peshawar, Pakistan.	No data on HBV serological markers prevalence
78	Aubert, 1987	Results of hepatitis B vaccination in a Paris hospital. 386 subjects.	No data on HBV serological markers prevalence
79	Aubert, 1987	Evaluation of hepatitis B vaccination in a Paris hospital personnel. 386 subjects.	Duplicate study
80	Aubert, 2016	Occupational hazards of traditional healers: repeated unprotected blood exposures risk infectious disease transmission.	No data on HBV serological markers prevalence
81	Auta, 2018	Hepatitis B vaccination coverage among health-care workers in Africa: A systematic review and meta-analysis.	Review
82	Averhoff, 1998	Immunogenicity of hepatitis B Vaccines. Implications for persons at occupational risk of hepatitis B virus infection.	No Laboratory-Confirmed data
83	Ayranci, 2004	Needlestick and sharps injuries among nurses in the healthcare sector in a city of western Turkey.	No Laboratory-Confirmed data
84	Ayub, 2014	Hemodialysis and hepatitis B vaccination: a challenge to physicians.	No data on HBV serological markers prevalence
85	Azap, 2005	Occupational exposure to blood and body fluids among health care workers in Ankara, Turkey.	No data on HBV serological markers prevalence
86	Aziz, 2002	Prevalence of HIV, hepatitis B and C amongst health workers of Civil Hospital Karachi.	Not possible to extract data on HBV serological markers prevalence
87	Azodo, 2010	Occupational risks and hepatitis B vaccination status of dental auxiliaries in Nigeria.	No data on HBV serological markers prevalence
88	Azodo, 2012	Hepatitis-B vaccination status among dental surgeons in benin city, Nigeria.	No data on HBV serological markers prevalence
89	Babanejad, 2019	A Systematic Review and Meta-analysis on the Prevalence of HBsAg in Health Care Workers from Eastern Mediterranean and Middle Eastern Countries.	Review
90	Babb, 1976	Hepatitis B antigen: a review of its importance in the practice of obstetrics and gynecology.	Review
91	Bachner, 1990	The epidemiology of fear. Scientific, social, and political responses to the occupational risk of blood-borne infection.	No abstract and full text available

0.0	D 1 2014		
92	Backus, 2014	Screening for and prevalence of hepatitis b virus infection among high-risk veterans under the care of the	Case report
		U.S. Department of Veterans Affairs: A case report.	
93	Bahadori, 2010	Occupational exposure to blood and body fluids.	Review
94	Bălteanu, 1997	Prevalence of hepatitis B and C virus markers among the	No abstract and full text
' '	Barcara, 1997	members of the medical-sanitary staff from the Faculty	available
		of Dentistry	
95	Bancescu, 1999	Infection control practices and compliance to national	No data on HBV serological
		recommendations among dentists in Romania.	markers prevalence
96	Barchitta, 2019	Vaccine-preventable diseases and vaccination among	Review
97	Bardan, 1993	Italian healthcare workers: a review of current literature.	No abstract and full text
91	Daruan, 1993	Hepatitis B vaccination in hospital personnel: To B or not to B.	available
98	Barie, 1994	Assessment of hepatitis B virus immunization status	Duplicate study
	,	among North American surgeons.	
99	Bârlean, 2013	Occupational health problems among dentists in	No data on HBV serological
		Moldavian Region of Romania.	markers prevalence
100	Barrigar, 2001	Hepatitis B virus infected physicians and disclosure of	No data on HBV serological
101	Bathija, 2013	transmission risks to patients: A critical analysis. A study on prevalence of needle stick injuries among	markers prevalence No data on HBV serological
101	Dannja, 2015	junior doctors and nursing students in Kims, Hubli.	markers prevalence
102	Bechini, 2015	Identification of hepatitis B and C screening and patient	Review
102	2011111, 2010	management guidelines and availability of training for	110,120,11
		chronic viral hepatitis among health professionals in six	
		European countries: Results of a semi-quantitative	
		survey.	
103	Bednarsh, 1990	Infection-control practices of Massachusetts dentists	No abstract and full text
104	Beghdadli, 2009	1986-1988. Personnel at risk for occupational blood exposure in a	available No data on HBV serological
104	Degnaam, 2009	university hospital in West Algeria.	markers prevalence
105	Bekele, 2014	Status of hepatitis B vaccination among surgeons	No data on HBV serological
		practicing in Ethiopia: a cross sectional study.	markers prevalence
106	Belefquih, 2012	Epidemiological profile of occupational blood exposure	No abstract and full text
107	D 111 '	accident in the mohamed 5th military teaching hospital.	available
107	Bellissimo- Rodrigues, 2006	Occupational exposure to biological fluids among a cohort of Brazilian dentists.	No data on HBV serological
108	Belo, 2000	Prevalence of hepatitis B virus markers in surgeons in	markers prevalence Duplicate study
100	Be10, 2000	Lagos, Nigeria.	Duplicate study
109	Beltrami, 2000	Risk and management of blood-borne infections in health	Review
	,	care workers.	
110	Beltrami, 2000	Immune response to hepatitis B vaccine in staff and	Sample with already known
		patients in renal dialysis units.	result
111	Bennett, 1985	An assessment of the prevalence of hepatitis B among	No abstract and full text available
112	Berk, 1994	health care personnel in Victoria. Infection control for health care workers caring for	No data on HBV serological
112	Derk, 1994	critically injured patients: A national survey.	markers prevalence
113	Berris, 1974	Letter: Frequency of hepatitis in dentists in Ontario.	No abstract and full text
	· 		available
114	Berry, 1984	A multicenter study of the prevalence of hepatitis B viral	No data on HBV serological
1	D 1001	serologic markers in anesthesia personnel.	markers prevalence
115	Berry, 1984	Provider-reported barriers to chronic hepatitis B care in	No data on HBV serological
		the veterans health administration.	markers prevalence among HCWs
116	Berry, 1985	A multicenter study of the epidemiology of hepatitis B in	Not possible to extract data
110	2011, 1703	anesthesia residents.	on HBV serological markers
			prevalence
117	Beškovnik, 2013	Hepatitis B vaccination coverage of health care workers	Not possible to extract data
		in the Celje region.	on HBV serological markers
			prevalence

118	Bezzaoucha, 1985	Infection of hospital personnel in a moderately endemic country by hepatitis B virus. Prevalence of hepatitis B serologic markers (HBs, anti-HBs) among 1502 people.	No abstract and full text available
119	Bhagwat, 1983	Hepatitis B surface antigen (HbsAg): (a survey of hospital staff in Zambia).	No abstract and full text available
120	Bhardwaj, 2014	The Prevalence of Accidental Needle Stick Injury and their Reporting among Healthcare Workers in Orthopaedic Wards in General Hospital Melaka, Malaysia.	No data on HBV serological markers prevalence among HCWs
121	Bhat, 2012	Hepatitis B and the infected health care worker: Public safety at what cost?	Review
122	Bhattacharya, 2001	Hepatitis B viral infection amongst hospital personnel in Calcutta.	No abstract and full text available
123	Bhattarai, 2014	Hepatitis B vaccination status and needle-stick and sharps-related Injuries among medical school students in Nepal: a cross-sectional study.	No data on HBV serological markers prevalence among HCWs
124	Bi, 2006	Occupational blood and body fluid exposure in an Australian teaching hospital.	No data on HBV serological markers prevalence among HCWs
125	Bi, 2008	Sharps injury and body fluid exposure among health care workers in an Australian tertiary hospital.	No data on HBV serological markers prevalence
126	Bibi, 2019	Infection control practices in blood banks of Pakistan.	No data on HBV serological markers prevalence
127	Bilski, 2002	Viral hepatitis in health service workers in the province of Wielkopolska.	Sample with already known result
128	Bilski, 2011	Viral hepatitis as an occupational disease in poland.	Not possible to extract data on HBV serological markers prevalence
129	Birrell, 1998	Hepatitis Bare surgeons putting patients at risk?	No data on HBV serological markers prevalence
130	Birrell, 1998	Hepatitis B - Are surgeons putting patients at risk?	Duplicate study
131	Blanco, 2011	Impact of a nurse vaccination program on hepatitis B immunity in a swiss HIV clinic.	No data on HBV serological markers prevalence
132	Blatchford, 2000	Infectious health care workers: should patients be told?	No data on HBV serological markers prevalence
133	Boal, 2005	Blood-borne pathogens among firefighters and emergency medical technicians.	Review
134	Bobinski, 2010	Health Care-Associated Hepatitis B and C Viruses: Legal Aspects.	No data on HBV serological markers prevalence
135	Bologna, 1990	Prevention of AIDS and other infectious diseases among dental professionals: A survey in two Italian regions.	No abstract and full text available
136	Bonanni, 2001	Vaccination against hepatitis B in health care workers.	No data on HBV serological markers prevalence
137	Borg, 2005	Hepatitis B transmission through blood and body fluids exposure of school personnel.	No Laboratory-Confirmed data
138	Borzooy, 2015	Identification of occult hepatitis B virus (HBV) infection and viral antigens in healthcare workers who presented low to moderate levels of anti-HBs after HBV vaccination.	No data on HBV serological markers prevalence
139	Borzooy, 2016	IL-17 and IL-22 genetic polymorphisms in HBV vaccine non- and low-responders among healthcare workers.	Sample with already known result
140	Bota, 2013	Frequency of hepatitis B and C in surgical patients, Civil Hospital Karachi.	No abstract and full text available
141	Boughton, 1982	Viral hepatitis: a four-year hospital and general-practice study in Sydney 1. Epidemiological features, natural history, and laboratory findings.	No data on HBV serological markers prevalence
142	Boughton, 1982	Viral hepatitis: a four-year hospital and general-practice study in Sydney. 2. Transmission of viral hepatitis among residential contacts in Sydney.	No data on HBV serological markers prevalence

1.40	D 1 2001	X 4	N. 1
143	Bowden, 2001	Needle-stick injuries in primary care.	No data on HBV serological markers prevalence
144	Briem, 1990	Prevalence of hepatitis B virus markers in Icelandic	No data on HBV serological
	Briem, 1990	outpatients and hospital personnel in 1979 and in 1987.	markers prevalence
145	Broor, 1986	Epidemiology of hepatitis B virus infection in a select	No abstract and full text
143	B1001, 1700	population of hospital staff.	available
146	Browne, 1984	Viral hepatitis and the anaesthetist.	Review
147	Burnett, 2011	_	
147	Burnett, 2011	Hepatitis B vaccination coverage in healthcare workers in Gauteng Province, South Africa.	No data on HBV serological markers prevalence
148	Burns, 2011	Nosocomial outbreak of hepatitis B virus infection	No data on HBV serological
140	Duins, 2011	involving two hospitals in the Republic of Ireland.	markers prevalence
149	Burrell, 1976	Prevalence of antibody to hepatitis B antigen among	No abstract and full text
149	Durren, 1970	hospital personnel.	available
150	Burrell, 1977	Prevalence of antibody to hepatitis B surface antigen	No data on HBV serological
150	Durren, 1977	among staff in an Edinburgh hospital.	markers prevalence
151	Busen, 1997	A collaborative model for community-based health care	No data on HBV serological
131	Duscii, 1997	screening of homeless adolescents.	markers prevalence
152	Butsashvili, 2012	Associated factors for recommending HBV vaccination	Duplicate study
132	Dutsasiiviii, 2012	to children among Georgian health care workers.	Duplicate study
153	Butsashvili, 2018	MEASUREMENT OF PERSONAL RISK BEHAVI-OR	No data on HBV serological
133	Datsushvin, 2010	IN OCCUPATIONAL RISK STUDIES AMONG	markers prevalence
		HEALTH CARE WORKERS.	markers prevarence
154	Cabana, 2002	Effect of state vaccine-financing strategy on hepatitis B	No data on HBV serological
151	Cabana, 2002	immunization in hospital nurseries.	markers prevalence
155	Caccamo, 2019	Seroprevalence of hepatitis B virus and hepatitis C virus	No data on HBV serological
155	Caccamo, 2019	infections in elderly residents in nursing homes in	markers prevalence
		Southern Italy.	markers prevarence
156	Callanan, 1993	Accidental skin punctures during ophthalmic surgery.	No data on HBV serological
100	Culturium, 1990	The state of the s	markers prevalence
157	Callender, 1982	Hepatitis B virus infection in medical and health care	Only HBV positive samples
	,	personnel.	included
158	Camilleri, 1991	Needlestick injury in surgeons: what is the incidence?	No abstract and full text
			available
159	Camilleri, 1991	Epidemiology of sharps accidents in general surgery.	No abstract and full text
			available
160	Canini, 2005	Accidents with potentially hazardous biological material	No data on HBV serological
		among workers in hospital supporting services.	markers prevalence
161	Capilouto, 1992	What is the dentist's occupational risk of becoming	No data on HBV serological
	_	infected with hepatitis B or the human immunodeficiency	markers prevalence
		virus?	
162	Cardo, 1997	Bloodborne pathogen transmission in health care	Review
		workers. Risks and prevention strategies.	
163	Carlson, 2010	Health Care Workers as Source of Hepatitis B and C	Review
		Virus Transmission.	
164	Caruana-Dingli,	Prevention of hepatitis B infection: a survey of surgeons	No Laboratory-Confirmed
	1994	and interventional cardiologists.	data
165	Carvalho, 2012	Hepatitis B virus prevalence and vaccination response in	Not possible to extract data
		health care workers and students at the Federal	on HBV serological markers
	G 11 1005	University of Bahia, Brazil.	prevalence
166	Catelle, 1983	Study of genetic markers of hepatitis B virus in 204	No abstract and full text
1	0.11 0010	persons working in hospitals.	available
167	Cekin, 2013	The level of knowledge of, attitude toward and emphasis	No data on HBV serological
		given to HBV and HCV infections among healthcare	markers prevalence
1.00	Contour C D'	professionals: data from a tertiary hospital in Turkey.	N. 4-4 IDV
168	Centers for Disease	Nosocomial hepatitis B virus infection associated with	No data on HBV serological
	Control and	reusable fingerstick blood sampling devicesOhio and	markers prevalence
	Prevention (CDC).,	New York City, 1996.	
	1997	<u>l</u>	<u> </u>

169	Centers for	Outbreak of hepatitis B associated with an oral surgeon-	No abstract and full text
1.50	Disease, 1987	New Hampshire.	available
170	Centers for Disease, 2012	Updated CDC recommendations for the management of hepatitis B virus-infected health-care providers and students.	No data on HBV serological markers prevalence
171	Chaiwarith, 2013	Occupational exposure to blood and body fluids among	No data on HBV serological
		healthcare workers in a teaching hospital: an experience from northern Thailand.	markers prevalence
172	Chalker, 1982		No data on UDV carological
1/2	Charker, 1982	Hepatitis B: A hazard for dermatologists.	No data on HBV serological markers prevalence
173	Chalya, 2015	Needle-stick injuries and splash exposures among health-	No data on HBV serological
		care workers at a tertiary care hospital in north-western Tanzania.	markers prevalence
174	Chandrasekaran,	Relative prevalence of hepatitis B viral markers and	Not possible to extract data
1,,	2000	hepatitis C virus antibodies (anti HCV) in Madurai, south India.	on HBV serological markers
175	Chaudhari, 2009	Hepatitis B immunisation in health care workers.	No data on HBV serological
		Tropulate 2 minimum and months of the control of th	markers prevalence
176	Chauhan, 2019	Status of adult immunity to hepatitis a virus in healthcare	No data on HBV serological
1.77	CI 2017	workers from a tertiary care hospital in north India.	markers prevalence
177	Chen, 2017	Junior doctors' knowledge about chronic hepatitis B guideline: A survey among 30 primary hospitals in sichuan province of China.	No data on HBV serological markers prevalence
178	Cheng, 2012	Factors affecting occupational exposure to needlestick and sharps injuries among dentists in Taiwan: A nationwide survey.	No data on HBV serological markers prevalence
179	Chiarakul, 2011	Response of health care workers with isolated antibody to hepatitis B core antigen to hepatitis B vaccine.	Sample with already known result
180	Chiarello, 2002	Preventing transmission of hepatitis B virus from surgeons to patients.	No data on HBV serological markers prevalence
181	Chien, 1999	Seroprevalence of viral hepatitis in an older nursing home population.	No data on HBV serological markers prevalence among HCWs
182	Chingle, 2017	Risk perception of hepatitis B infection and uptake of hepatitis B vaccine among students of tertiary institution in Jos.	No data on HBV serological markers prevalence
183	Chlabicz, 2006	Prevalence of HBsAg among residents of social assistance homes in Podlaskie Province (northeastern Poland).	No abstract and full text available
184	Chobe, 1991	Hepatitis B infection among dental personnel in Pune &	No data on HBV serological
185	Chobe, 1991	Bombay (India). Hepatitis B infection among dental personnel in Pune and Bombay (India).	markers prevalence Duplicate study
186	Chodick, 2002	Cost-utility analysis of hepatitis a prevention among health-care workers in Israel.	No data on HBV serological markers prevalence
187	Chokbunyasit, 1995	Prevalence of HBV infection in nurses and manual workers in Maharaj Nakorn Chiang Mai Hospital.	Not possible to extract data on HBV serological markers prevalence
188	Chongsuvivatwong, 1989	A simplified financial cost-effectiveness analysis of programs for prevention of hepatitis B accidental inoculation among hospital personnel in Thailand.	No data on HBV serological markers prevalence
189	Chowdhury, 2011	A comprehensive situation assessment of injection practices in primary health care hospitals in Bangladesh.	No data on HBV serological markers prevalence
190	Christensen, 1985	Acute infections with hepatitis B virus in medical	Only HBV positive samples
4 ~ :	G1 1 1 10	personnel during a 15-year follow-up.	included
191	Christian, 1991	Influenza and hepatitis B vaccine acceptance: a survey of health care workers.	No data on HBV serological markers prevalence

192	Çiçek-Şentürk,	Retrospective investigation of 9 years of data on	No Laboratory-Confirmed
	2019	needlestick and sharps injuries: Effect of a hospital infection control committee.	data
193	Ciorlia, 2005	Seroprevalance of measles, rubella, mumps, varicella, diphtheria, tetanus and hepatitis b in healthcare workers.	Study not in English or French
194	Ciuffa, 2002	Blood-borne viruses and health care workers [3].	No abstract and full text available
195	Civljak, 2013	Influenza and hepatitis B vaccination coverage among	No Laboratory-Confirmed
		healthcare workers in Croatian hospitals: a series of cross-sectional surveys, 2006-2011.	data
196	Claus, 2017	Seroepidemiology of hepatitis A and B and vaccination status in staff at German schools for the handicapped.	No data on HBV serological markers prevalence
197	Clawson, 1986	Prevalence of antibody to hepatitis B virus surface antigen in emergency medical personnel in Salt Lake City, Utah.	No data on HBV serological markers prevalence
198	Cleveland, 1994	Factors associated with hepatitis B vaccine response among dentists.	No data on HBV serological markers prevalence
199	Cleveland, 1996	Hepatitis B vaccination and infection among U.S. dentists, 1983-1992.	Not possible to extract data on HBV serological markers prevalence
200	Cleveland, 2016	Transmission of blood-borne pathogens in US dental health care settings: 2016 update.	Review
201	Coates, 1983	Hepatitis B vaccine requirements in at-risk hospital personnel: A survey of hospitals in Metropolitan Toronto.	No data on HBV serological markers prevalence
202	Coleman, 1991	Intradermal hepatitis B vaccination in a large hospital employee population.	No abstract and full text available
203	Coll, 2005	Immunization and screening for infectious disease: Health care workers in long-term care.	No abstract and full text available
204	Collins, 1994	Occupational acquisition of acute hepatitis B infection by health care workers: England and Wales, 1985-93.	No abstract and full text available
205	Comboroure, 2014	Perception of vaccination and role of the pharmacist: A survey among final year pharmacy students in France.	No data on HBV serological markers prevalence
206	Coppeta, 2019	Persistence of immunity for hepatitis B virus among heathcare workers and Italian medical students 20 years after vaccination.	No data on HBV serological markers prevalence
207	Corden, 2003	HBV DNA levels and transmission of hepatitis B by health care workers.	No data on HBV serological markers prevalence
208	Corden, 2003	HBV pre-vaccination screening in hospital personnel: Cost-effectiveness analysis.	No data on HBV serological markers prevalence
209	Corser, 1998	Occupational exposure of health care workers to bloodborne pathogens: A proposal for a systematic intervention approach.	No abstract and full text available
210	Costa, 1997	Hepatitis B Vaccination of Health Care Workers is Not Yet a Reality.	No data on HBV serological markers prevalence
211	Costigliola, 2012	Needlestick injuries in European nurses in diabetes.	No data on HBV serological markers prevalence
212	Cottone, 1985	Hepatitis B virus infection in the dental profession.	No abstract and full text available
213	Craven, 1986	Nonresponsiveness to hepatitis B vaccine in health care workers. Results of revaccination and genetic typings.	No data on HBV serological markers prevalence
214	Cuenca-Gomez, 2016	Viral hepatitis and immigration: A challenge for the healthcare system.	No data on HBV serological markers prevalence among HCWs
215	Cvejanov- Kezunovic, 2014	Occupational exposure to blood among hospital workers in Montenegro.	No data on HBV serological markers prevalence
216	Czernichow, 1985	Risk of hepatitis B virus in hospital personnel: Sero- epidemiologic survey.	No abstract and full text available

217	Czernichow, 1985	Sero-epidemiologic study of the risk of hepatitis B among hospital staff.	No abstract and full text available
218	da Costa, 2013	Is vaccination against hepatitis B a reality among primary health care workers?	No Laboratory-Confirmed data
219	Dagher, 2017	Infection Control Measures in Private Dental Clinics in Lebanon.	No Laboratory-Confirmed data
220	Daha, 2009	Hepatitis B virus infected health care workers in the Netherlands, 2000-2008.	Only HBV positive samples included
221	Danchaivijitr, 2005	Prevention and treatment of infectious diseases in healthcare workers.	No Laboratory-Confirmed data
222	Dancocks, 1994	Hepatitis B immunisation status of A&E healthcare workers.	No abstract and full text available
223	Daniel, 1996	Infection control knowledge, practice, and attitudes of Mississippi dental hygienists.	No Laboratory-Confirmed data
224	Dannetun, 2006	Coverage of hepatitis B vaccination in Swedish healthcare workers.	No Laboratory-Confirmed data
225	Davanzo, 2008	Occupational blood and body fluid exposure of university health care workers.	No data on HBV serological markers prevalence
226	Day, 2009	Utilisation of pre-chemotherapy Hepatitis B screening among Australian medical oncologists.	No data on HBV serological markers prevalence
227	de Almeida, 1991	Hepatitis B vaccination and infection control in Brazilian dental practice, 1990.	No Laboratory-Confirmed data
228	de Andrade Noshioka, 1998	Percutaneous Injuries With Sharp Instruments and the Behavior of Anesthesiologists and Obstetricians in Regard to the Associated Risk of Occupational Infectious Diseases: A Survey in a Town in Brazil.	No data on HBV serological markers prevalence
229	De Baets, 2007	Access to occupational postexposure prophylaxis for primary health care workers in rural Africa: A cross-sectional study.	No data on HBV serological markers prevalence
230	de la Hoz, 2005	Vaccine coverage with hepatitis B and other vaccines in the Colombian Amazon: do health worker knowledge and perception influence coverage?	No data on HBV serological markers prevalence
231	De Laune, 1990	Risk reduction through testing, screening and infection control precautionswith special emphasis on needlestick injuries.	Review
232	de Melo, 2000	Survey of the knowledge and practice of infection control among dental practitioners.	No data on HBV serological markers prevalence
233	De Oliveira Souza, 2015	Vaccination against hepatitis be anti-HBs between health workers of achievement.	No Laboratory-Confirmed data
234	De Schrijver, 2005	An outbreak of nosocomial hepatitis B virus infection in a nursing home for the elderly in Antwerp (Belgium).	Not possible to extract data on HBV serological markers prevalence
235	De Schryver, 2011	European survey of hepatitis B vaccination policies for healthcare workers.	No Laboratory-Confirmed data
236	De Schryver, 2014	Hepatitis B vaccination policies for student healthcare workers in Europe.	No Laboratory-Confirmed data
237	De Schryver, 2020	European survey of hepatitis B vaccination policies for healthcare workers: An updated overview.	No Laboratory-Confirmed data
238	Debes, 2018	Spectrum of hepatitis B awareness among healthcare workers across Africa.	No Laboratory-Confirmed data
239	Delaporte, 1995	Viral hepatitis in the National Health Service in 1993.	No abstract and full text available
240	Dement, 2004	Blood and body fluid exposure risks among health care workers: Results from the Duke health and safety surveillance system.	No data on HBV serological markers prevalence
241	Denes, 1978	Hepatitis B infection in physicians. Results of a nationwide seroepidemiologic survey.	Not possible to extract data on HBV serological markers prevalence

242	Denić, 2012	Knowledge and occupational exposure to blood and body	No data on HBV serological
2.12	1 ** 1004	fluids among health care workers and medical students.	markers prevalence
243	deVries, 1994	Needlestick injury in medical students.	No data on HBV serological
			markers prevalence
244	Devroey, 1997	Clinical acute viral hepatitis encountered by Belgian	No data on HBV serological
		general practitioners.	markers prevalence
245	Di Giuseppe, 2007	A survey of knowledge, attitudes, and behavior of Italian	No data on HBV serological
		dentists toward immunization.	markers prevalence
246	DiAngelis, 1989	Infection control practices of Minnesota dentists: changes	No data on HBV serological
		during 1 year.	markers prevalence
247	Dikmen, 2017	Evaluation of laboratory safety of the laboratory staff.	No abstract and full text available
248	Dini, 2017	Persistence of protective anti-HBs antibody levels and	No data on HBV serological
		anamnestic response to HBV booster vaccination: A	markers prevalence
		cross-sectional study among healthcare students 20 years	
		following the universal immunization campaign in Italy.	
249	Djeriri, 1996	Seroprevalence of viral hepatitis A, B and C in health	No abstract and full text
		care personnel in the Clermont-Ferrand University	available
		Hospital.	
250	Doebbeling, 1996	Predictors of hepatitis B vaccine acceptance in health	No data on HBV serological
	ζ,	care workers.	markers prevalence
251	Drinnan, 1987	Hepatitis and western New York dentists.	No abstract and full text
	211111111, 1707		available
252	Du Plessis, 1999	Bloodborne viruses in forensic medical practice in South	No data on HBV serological
232	Du 1 (8313, 1777)	Africa.	markers prevalence
253	Dumpis, 2003	An outbreak of HBV and HCV infection in a paediatric	Sample with already known
233	Dumpis, 2003	oncology ward: epidemiological investigations and	result
			Tesuit
254	D 2011	prevention of further spread.	No. data an HDW and last at
254	Duong, 2011	Vaccination coverage of healthcare professionals in an	No data on HBV serological
255	D 1 1 2002	infectious diseases department.	markers prevalence
255	Durlach, 2003	Ten-Year Persistence of Antibody to Hepatitis B Surface	No data on HBV serological
		Antigen in Healthcare Workers Vaccinated Against	markers prevalence among
256	El 1: : 2007	Hepatitis B Virus, and Response to Booster Vaccination.	HCWs 1 1 1 1
256	Ebrahimi, 2007	Needlestick Injuries among Nurses.	No data on HBV serological
	7.1		markers prevalence
257	Echavez, 1987	Hepatitis B vaccine usage among dental practitioners in	Not possible to extract data
		the United States: an epidemiological survey.	on HBV serological markers
			prevalence
258	Ehui, 2007	Management of accidental exposure to blood	Sample size $<$ or $= 10$
		in the Treichville teaching hospital, Abidjan (Côte-	participants
		d'Ivoire).	
259	El-Awady, 1998	Hepatitis B vaccination rates among medical personnel at	No data on HBV serological
		Ain Shams University Hospital and obstacles to vaccine	markers prevalence
		uptake.	
260	el-Dalil, 1995	A survey on hepatitis B vaccination policies in	No data on HBV serological
		genitourinary medicine in UK and Ireland.	markers prevalence
261	Elder, 2006	Sharps injuries in UK health care: A review of injury	Review
		rates, viral transmission and potential efficacy of safety	
		devices.	
262	Elegbe, 1986	Viral hepatitis: an occupational health hazard to hospital	No data on HBV serological
	, ,	and laboratory workers in Nigeria.	markers prevalence among
		, a second y a second s	HCWs
263	Elmaghloub, 2017	Occult hepatitis B infection in Egyptian health care	Duplicate study
_05		workers.	= sprious stady
264	Elmukashfi, 2012	Hepatitis B virus infection among health care workers in	Duplicate study
		Public Teaching Hospitals in Khartoum State, Sudan.	_ apricate stady
265	El-Shafie, 1995	The relationship between the knowledge of nursing staff	No abstract and full text
203	L1-311a116, 1773	and their compliance to universal precautions for	available
		prevention of hepatitis B viral infection.	avanabie
<u> </u>		prevention of nepatitis B viral infection.	1

	T		
266	Enfield, 2013	Transmission of hepatitis B virus from an orthopedic surgeon with a high viral load.	No data on HBV serological markers prevalence
267	Epstein, 1989	Infection control. Survey of dental health care workers.	No abstract and full text available
268	Escudero, 2015	Healthcare worker adherence to follow-up after	No data on HBV serological
200	25044010, 2015	occupational exposure to blood and body fluids at a	markers prevalence among
		teaching hospital in Brazil.	HCWs
269	Estevez, 2016	Low rates of screening and treatment of chronic hepatitis	No data on HBV serological
		B, C, D (HBV, HCV, HDV), and hepatocellular	markers prevalence
		carcinoma (HCC), associated barriers, and proposed	_
		solutions: Results of a survey of physicians from all	
		major provinces of Mongolia.	
270	Estrella, 2017	Perception of barriers and facilitators to hepatitis B virus	No data on HBV serological
		screening, vaccination, and treatment care among Asian	markers prevalence
		American physicians.	
271	Evans, 2001	Exposure of healthcare workers in England, Wales, and	No data on HBV serological
		Northern Ireland to bloodborne viruses between July	markers prevalence
		1997 and June 2000: analysis of surveillance data.	
272	Eyal Malka, 2012	Exposure to blood borne infections in health care	No data on HBV serological
		workers.	markers prevalence among
2==	F.1. 2007		HCWs
273	Falagas, 2007	Percutaneous exposure incidents of the health care	No data on HBV serological
		personnel in a newly founded tertiary hospital: a	markers prevalence among
27.4	E 1: 1077	prospective study.	HCWs
274	Faoagali, 1977	HBsAg and anti-HBs in staff and patients of a	No abstract and full text
275	F1: 1070	psychopaedic hospital.	available
275	Faoagali, 1978	Distribution of anti HBs in christchurch hospital staff.	No abstract and full text available
276	Faoagali, 1986	Hepatitis B markers in Canterbury dental workers: a	No abstract and full text
270	Tuougun, 1900	seroepidemiological survey.	available
277	Fasunloro, 2004	Occupational hazards among clinical dental staff.	No data on HBV serological
		The state of the s	markers prevalence
278	Faure, 2013	Vaccinal status of healthcare students in Lille.	No data on HBV serological
	,		markers prevalence
279	Fauvert, 1974	Viral hepatitis amongst hospital staff.	No abstract and full text
		, , ,	available
280	Feleke, 2016	Low coverage of hepatitis B vaccine and determinants	No data on HBV serological
		among health professionals working in Amhara regional	markers prevalence
		state hospitals, Ethiopia.	
281	Felix, 1994	Recent non-sterile inoculation injuries to dental	No data on HBV serological
		professionals in the Lothian region of Scotland.	markers prevalence
282	Ferguson, 1989	Hepatitis B virus marker prevalence in dental students.	No abstract and full text available
283	Fernandes, 2013	Need for a comprehensive, consistently applied national	No data on HBV serological
	,	hepatitis B vaccination policy for healthcare workers in	markers prevalence
		higher educational institutions: A case study from South	
		Africa.	
284	Ferraz, 1998	Epidemiology of acute hepatitis B in a university hospital	No data on HBV serological
		in São Paulo, Brazil: retrospective study of two five-year	markers prevalence among
		periods.	HCWs
285	Ferreira, 2012	Hepatitis B vaccination and associated factors among	No data on HBV serological
		dentists.	markers prevalence
286	Fisman, 2002	Willingness to pay to avoid sharps-related injuries: A	No data on HBV serological
		study in injured health care workers.	markers prevalence
287	Foda, 2018	Hepatitis in nursing homes. Incidence and management	No Laboratory-Confirmed
		strategies.	data
288	Foda, 2018	Safe injection procedures, injection practices, and	No data on HBV serological
		needlestick injuries among health care workers in	markers prevalence
		operating rooms.	

289	Follett, 1987	Experience with hepatitis B vaccination in nurses in a hospital for the mentally handicapped.	Sample with already known result
290	Fortier-Launois,	Accidental professional exposure to blood in a parisian	No abstract and full text
	1997	hospital between 1993 and 1994.	available
291	Fortunato, 2015	Low vaccination coverage among italian healthcare	Not possible to extract data
		workers in 2013.	on HBV serological markers
			prevalence
292	François, 2011	Hepatitis B virus vaccination by French family physicians.	No Laboratory-Confirmed data
293	François, 2013	Needleestick injuries among professionals in a safe	Not possible to extract data
	•	injecting facility.	on HBV serological markers
			prevalence
294	Frijstein, 2011	Needlestick injuries and infectious patients in a major	Not possible to extract data
		academic medical centre from 2003 to 2010.	on HBV serological markers
			prevalence
295	Froehlich, 2001	Compliance with hepatitis B virus vaccination in a high-	No data on HBV serological
		risk population.	markers prevalence
296	Froesner, 1975	Prevalence of antibody to hepatitis B surface antigen in	Duplicate study
	,	various populations.	
297	Fry, 2000	Hepatitis: Risks for the surgeon.	Not possible to extract data
			on HBV serological markers
			prevalence
298	Fry, 2005	Occupational blood-borne diseases in surgery.	Review
299	Fry, 2007	Occupational risks of blood exposure in the operating	Review
	,,	room.	
300	Fyman, 1984	Prevalence of hepatitis B markers in the anesthesia staff	Not possible to extract data
	- J, -	of a large inner-city hospital.	on HBV serological markers
		The state of the s	prevalence
301	Gagneux-Brunon,	Vaccines for healthcare-associated infections: present,	Review
	2018	future, and expectations.	
302	Galougahi, 2010	Evaluation of needle stick injuries among nurses of	No data on HBV serological
		Khanevadeh Hospital in Tehran.	markers prevalence
303	Gańczak, 2012	The comparison of sharps injuries reported by doctors	No data on HBV serological
		versus nurses from surgical wards in the context of the	markers prevalence
		prevalence of HBV, HCV and HIV infections.	
304	Ganczak, 2019	Seroprevalence of anti-HBc, risk factors of	No data on HBV serological
		occupationally acquired HBV infection and HBV	markers prevalence
		vaccination among hospital staff in Poland: a multicenter	
		study.	
305	Gao, 2017	A large-scale survey on sharp injuries among hospital-	No data on HBV serological
		based healthcare workers in China.	markers prevalence
306	Gara, 2015	Durability of antibody response against hepatitis B virus	Not possible to extract data
		in healthcare workers vaccinated as adults.	on HBV serological markers
			prevalence
307	Garbin, 2019	Vaccination coverage and immunity against hepatitis B	Not possible to extract data
		in public health dentists.	on HBV serological markers
			prevalence
308	García-	Pre-Immunosuppressant Hepatitis B Virus screening	No data on HBV serological
	Bengoechea, 2012	practices among various medical specialities (HEBRA	markers prevalence
		Project): Results of a survey from 19 spanish hospitals.	
309	Gatto, 2013	Occupational exposure to blood and body fluids in a	No data on HBV serological
		department of oral sciences: Results of a thirteen-year	markers prevalence
			markers prevalence
		surveillance study.	-
310	Gebremariam, 2019	surveillance study. Low vaccination coverage and high prevalence of	No abstract and full text
310		surveillance study. Low vaccination coverage and high prevalence of hepatitis b infection in health care workers at university	-
	Gebremariam, 2019	surveillance study. Low vaccination coverage and high prevalence of hepatitis b infection in health care workers at university of Gondar hospital, Northwest Ethiopia.	No abstract and full text available
310		surveillance study. Low vaccination coverage and high prevalence of hepatitis b infection in health care workers at university	No abstract and full text

312	Gerberding, 1987	Risk of transmitting the human immunodeficiency virus, cytomegalovirus, and hepatitis B virus to health care workers exposed to patients with AIDS and AIDS-related conditions.	Not possible to extract data on HBV serological markers prevalence
313	Gerlich, 1997	Commentary: hepatitis B and C transmission. Are doctors the culprits?	Comment on an article
314	Gershon, 1995	Occupational risk of human immunodeficiency virus, hepatitis B virus, and hepatitis C virus infections among funeral service practitioners in Maryland.	No data on HBV serological markers prevalence
315	Gershon, 2002	Bloodborne pathogen exposure risk for non-hospital based healthcare workers.	No abstract and full text available
316	Gershon, 2005	Hepatitis B vaccination in correctional health care workers.	No data on HBV serological markers prevalence
317	Gessouli-Voltiraki, 2007	HBV immunization status of health care personnel: A study in two Greek regional hospitals.	No Laboratory-Confirmed data
318	Geubel, 1985	Viral hepatitis in the health care personnel.	No abstract and full text available
319	Ghasemzadeh, 2015	Sharp Injuries Among Medical Students.	No data on HBV serological markers prevalence
320	Ghomraoui, 2016	Medical students' awareness of and compliance with the hepatitis B vaccine in a tertiary care academic hospital: An epidemiological study.	No Laboratory-Confirmed data
321	Gibbs, 1994	A survey of practices in infectious diseases by obstetrician-gynecologists.	No data on HBV serological markers prevalence
322	Gilbert, 2002	Comparison of commercial assays for the quantification of HBV DNA load in health care workers: Calibration differences.	No data on HBV serological markers prevalence
323	Gillcrist, 1999	Hepatitis viruses A, B, C, D, E and G: implications for dental personnel.	Not possible to extract data on HBV serological markers prevalence
324	Glenwright, 1974	Serum hepatitis in dental surgeons.	No abstract and full text available
325	Goebel, 1979	Hepatitis B virus infection in dental students. A two-year evaluation.	No abstract and full text available
326	Goetz, 1990	Hepatitis B and hepatitis B vaccine requirements in schools of nursing in the United States: a national survey.	No Laboratory-Confirmed data
327	Goetz, 1992	Microbiology, infection control, immunizations, and infectious disease exposure: education and practices in United States nursing schools.	No data on HBV serological markers prevalence
328	Gold, 1979	Hepatitis in the Haemodialysis Unit, Baragwanath Hospital, 1973-1977. A cross-sectional and longitudinal survey.	No data on HBV serological markers prevalence
329	Goniewicz, 2012	Injuries caused by sharp instruments among healthcare workersinternational and Polish perspectives.	No data on HBV serological markers prevalence
330	Gorar, 2014	Risk factors for bloodborne viral hepatitis in healthcare workers of Pakistan: A population based case-control study.	Only HBV positive samples included
331	Götz, 2008	A cluster of hepatitis B infections associated with incorrect use of a capillary blood sampling device in a nursing home in the Netherlands, 2007.	No abstract and full text available
332	Greene, 1996	Percutaneous injuries in anesthesia personnel.	No data on HBV serological markers prevalence
333	Green-McKenzie, 2001	Infection control practices among correctional healthcare workers: effect of management attitudes and availability of protective equipment and engineering controls.	No data on HBV serological markers prevalence
334	Grist, 1981	Hepatitis infection in clinical laboratory staff.	No abstract and full text available
335	Grob, 1981	Cluster of hepatitis B transmitted by a physician.	Sample with already known result

221			
336	Grosso, 2012	Long-term persistence of seroprotection by hepatitis B	No data on HBV serological
227	C + 2011	vaccination in healthcare workers of southern Italy.	markers prevalence
337	Guet, 2011	Investigation of a severe nosocomial outbreak of hepatitis A among healthcare workers and adult patients.	No data on HBV serological markers prevalence
338	Gugelmann, 1998	Hepatitis B vaccination: knowledge and acceptance by	Study not in English or
336	Gugennann, 1998	Swiss physicians.	French
339	Guimet, 2001	Percutaneous injuries in a high-volume podiatric surgical	No data on HBV serological
		residency program.	markers prevalence
340	Gunson, 2003	Hepatitis B virus (HBV) and hepatitis C virus (HCV)	No data on HBV serological
		infections in health care workers (HCWs): Guidelines for	markers prevalence
		prevention of transmission of HBV and HCV from HCW	_
		to patients.	
341	Guo, 1999	Needlestick and sharps injuries among health-care	No data on HBV serological
		workers in Taiwan.	markers prevalence
342	Gupta, 2016	Blood-borne viruses and health care workers: A	No data on HBV serological
		neglected entity!	markers prevalence
343	Gupta, 2017	Infection control knowledge and practice: A cross-	No data on HBV serological
		sectional survey on dental laboratories in dental institutes	markers prevalence
		of North India.	
344	Guthmann, 2012	Vaccination coverage of health care personnel working in	No Laboratory-Confirmed
		health care facilities in France: results of a national	data
		survey, 2009.	
345	Güven, 2006	Hepatitis B prevalence among workers in Turkey at low	No data on HBV serological
		risk for hepatitis B exposure.	markers prevalence among
215	G 11 100 5		HCWs
346	Gyawali, 1996	Mcnee bequest. Awareness of and protection against	No abstract and full text
		hepatitis B virus infection among healthcare workers in	available
2.47	H.M. 1: 2010	Nepal, 1997. Report on a period of elective study.	D :
347	H Muljono, 2018	Hepatitis B Virus Infection among Health Care Workers in Indonesia.	Review
348	Hadler, 1981	An outbreak of hepatitis B in a dental practice.	Review
349	Hadziyannis, 1983	Hepatitis B vaccination strategy for health-care workers	Not possible to extract data
577	Tradziyanins, 1703	in a country of intermediate hepatitis B endemicity.	
			on HBV serological markers
		in a country of intermediate nepatitis B endemicity.	on HBV serological markers prevalence
350	Halpern, 2006		prevalence
350	Halpern, 2006	Inadequate hepatitis B vaccination and post-exposure	prevalence Not possible to extract data
350	Halpern, 2006	Inadequate hepatitis B vaccination and post-exposure evaluation among transplant surgeons: Prevalence,	prevalence
350 351	Halpern, 2006 Hamid, 1997	Inadequate hepatitis B vaccination and post-exposure	prevalence Not possible to extract data on HBV serological markers
	•	Inadequate hepatitis B vaccination and post-exposure evaluation among transplant surgeons: Prevalence, correlates, and implications.	prevalence Not possible to extract data on HBV serological markers prevalence
	Hamid, 1997	Inadequate hepatitis B vaccination and post-exposure evaluation among transplant surgeons: Prevalence, correlates, and implications. Hepatitis B immunization of hospital employees in an	Prevalence Not possible to extract data on HBV serological markers prevalence Not possible to extract data
	•	Inadequate hepatitis B vaccination and post-exposure evaluation among transplant surgeons: Prevalence, correlates, and implications. Hepatitis B immunization of hospital employees in an endemic area: should we screen? Hepatitis and the healthcare worker - a pakistani	prevalence Not possible to extract data on HBV serological markers prevalence Not possible to extract data on HBV serological markers prevalence No abstract and full text
351	Hamid, 1997 Hamid, 2007	Inadequate hepatitis B vaccination and post-exposure evaluation among transplant surgeons: Prevalence, correlates, and implications. Hepatitis B immunization of hospital employees in an endemic area: should we screen? Hepatitis and the healthcare worker - a pakistani perspective.	prevalence Not possible to extract data on HBV serological markers prevalence Not possible to extract data on HBV serological markers prevalence No abstract and full text available
351	Hamid, 1997	Inadequate hepatitis B vaccination and post-exposure evaluation among transplant surgeons: Prevalence, correlates, and implications. Hepatitis B immunization of hospital employees in an endemic area: should we screen? Hepatitis and the healthcare worker - a pakistani perspective. Epidemiology of hepatitis B among professional male	prevalence Not possible to extract data on HBV serological markers prevalence Not possible to extract data on HBV serological markers prevalence No abstract and full text available No data on HBV serological
351 352 353	Hamid, 1997 Hamid, 2007 Hamilton, 2010	Inadequate hepatitis B vaccination and post-exposure evaluation among transplant surgeons: Prevalence, correlates, and implications. Hepatitis B immunization of hospital employees in an endemic area: should we screen? Hepatitis and the healthcare worker - a pakistani perspective. Epidemiology of hepatitis B among professional male athletes in Qatar.	prevalence Not possible to extract data on HBV serological markers prevalence Not possible to extract data on HBV serological markers prevalence No abstract and full text available No data on HBV serological markers prevalence
351	Hamid, 1997 Hamid, 2007	Inadequate hepatitis B vaccination and post-exposure evaluation among transplant surgeons: Prevalence, correlates, and implications. Hepatitis B immunization of hospital employees in an endemic area: should we screen? Hepatitis and the healthcare worker - a pakistani perspective. Epidemiology of hepatitis B among professional male athletes in Qatar. Needlestick injuries among health care workers of	prevalence Not possible to extract data on HBV serological markers prevalence Not possible to extract data on HBV serological markers prevalence No abstract and full text available No data on HBV serological markers prevalence No data on HBV serological
351 352 353 354	Hamid, 1997 Hamid, 2007 Hamilton, 2010 Hanafi, 2011	Inadequate hepatitis B vaccination and post-exposure evaluation among transplant surgeons: Prevalence, correlates, and implications. Hepatitis B immunization of hospital employees in an endemic area: should we screen? Hepatitis and the healthcare worker - a pakistani perspective. Epidemiology of hepatitis B among professional male athletes in Qatar. Needlestick injuries among health care workers of University of Alexandria hospitals.	prevalence Not possible to extract data on HBV serological markers prevalence Not possible to extract data on HBV serological markers prevalence No abstract and full text available No data on HBV serological markers prevalence No data on HBV serological markers prevalence
351 352 353	Hamid, 1997 Hamid, 2007 Hamilton, 2010	Inadequate hepatitis B vaccination and post-exposure evaluation among transplant surgeons: Prevalence, correlates, and implications. Hepatitis B immunization of hospital employees in an endemic area: should we screen? Hepatitis and the healthcare worker - a pakistani perspective. Epidemiology of hepatitis B among professional male athletes in Qatar. Needlestick injuries among health care workers of University of Alexandria hospitals. Hepatitis B vaccine and hepatitis B markers: cost	prevalence Not possible to extract data on HBV serological markers prevalence Not possible to extract data on HBV serological markers prevalence No abstract and full text available No data on HBV serological markers prevalence No data on HBV serological markers prevalence No data on HBV serological markers prevalence No data on HBV serological
351 352 353 354 355	Hamid, 1997 Hamid, 2007 Hamilton, 2010 Hanafi, 2011 Hankins, 1987	Inadequate hepatitis B vaccination and post-exposure evaluation among transplant surgeons: Prevalence, correlates, and implications. Hepatitis B immunization of hospital employees in an endemic area: should we screen? Hepatitis and the healthcare worker - a pakistani perspective. Epidemiology of hepatitis B among professional male athletes in Qatar. Needlestick injuries among health care workers of University of Alexandria hospitals. Hepatitis B vaccine and hepatitis B markers: cost effectiveness of screening prehospital personnel.	prevalence Not possible to extract data on HBV serological markers prevalence Not possible to extract data on HBV serological markers prevalence No abstract and full text available No data on HBV serological markers prevalence
351 352 353 354	Hamid, 1997 Hamid, 2007 Hamilton, 2010 Hanafi, 2011	Inadequate hepatitis B vaccination and post-exposure evaluation among transplant surgeons: Prevalence, correlates, and implications. Hepatitis B immunization of hospital employees in an endemic area: should we screen? Hepatitis and the healthcare worker - a pakistani perspective. Epidemiology of hepatitis B among professional male athletes in Qatar. Needlestick injuries among health care workers of University of Alexandria hospitals. Hepatitis B vaccine and hepatitis B markers: cost effectiveness of screening prehospital personnel. A survey of physicians' vaccine risk perception and	prevalence Not possible to extract data on HBV serological markers prevalence Not possible to extract data on HBV serological markers prevalence No abstract and full text available No data on HBV serological markers prevalence
351 352 353 354 355	Hamid, 1997 Hamid, 2007 Hamilton, 2010 Hanafi, 2011 Hankins, 1987	Inadequate hepatitis B vaccination and post-exposure evaluation among transplant surgeons: Prevalence, correlates, and implications. Hepatitis B immunization of hospital employees in an endemic area: should we screen? Hepatitis and the healthcare worker - a pakistani perspective. Epidemiology of hepatitis B among professional male athletes in Qatar. Needlestick injuries among health care workers of University of Alexandria hospitals. Hepatitis B vaccine and hepatitis B markers: cost effectiveness of screening prehospital personnel. A survey of physicians' vaccine risk perception and immunization practices for subjects with immunological	prevalence Not possible to extract data on HBV serological markers prevalence Not possible to extract data on HBV serological markers prevalence No abstract and full text available No data on HBV serological markers prevalence
351 352 353 354 355 356	Hamid, 1997 Hamid, 2007 Hamilton, 2010 Hanafi, 2011 Hankins, 1987 Hanslik, 2000	Inadequate hepatitis B vaccination and post-exposure evaluation among transplant surgeons: Prevalence, correlates, and implications. Hepatitis B immunization of hospital employees in an endemic area: should we screen? Hepatitis and the healthcare worker - a pakistani perspective. Epidemiology of hepatitis B among professional male athletes in Qatar. Needlestick injuries among health care workers of University of Alexandria hospitals. Hepatitis B vaccine and hepatitis B markers: cost effectiveness of screening prehospital personnel. A survey of physicians' vaccine risk perception and immunization practices for subjects with immunological diseases.	prevalence Not possible to extract data on HBV serological markers prevalence Not possible to extract data on HBV serological markers prevalence No abstract and full text available No data on HBV serological markers prevalence
351 352 353 354 355	Hamid, 1997 Hamid, 2007 Hamilton, 2010 Hanafi, 2011 Hankins, 1987	Inadequate hepatitis B vaccination and post-exposure evaluation among transplant surgeons: Prevalence, correlates, and implications. Hepatitis B immunization of hospital employees in an endemic area: should we screen? Hepatitis and the healthcare worker - a pakistani perspective. Epidemiology of hepatitis B among professional male athletes in Qatar. Needlestick injuries among health care workers of University of Alexandria hospitals. Hepatitis B vaccine and hepatitis B markers: cost effectiveness of screening prehospital personnel. A survey of physicians' vaccine risk perception and immunization practices for subjects with immunological diseases. Compliance with infection control standard precautions	Prevalence Not possible to extract data on HBV serological markers prevalence Not possible to extract data on HBV serological markers prevalence No abstract and full text available No data on HBV serological markers prevalence
351 352 353 354 355 356	Hamid, 1997 Hamid, 2007 Hamilton, 2010 Hanafi, 2011 Hankins, 1987 Hanslik, 2000	Inadequate hepatitis B vaccination and post-exposure evaluation among transplant surgeons: Prevalence, correlates, and implications. Hepatitis B immunization of hospital employees in an endemic area: should we screen? Hepatitis and the healthcare worker - a pakistani perspective. Epidemiology of hepatitis B among professional male athletes in Qatar. Needlestick injuries among health care workers of University of Alexandria hospitals. Hepatitis B vaccine and hepatitis B markers: cost effectiveness of screening prehospital personnel. A survey of physicians' vaccine risk perception and immunization practices for subjects with immunological diseases. Compliance with infection control standard precautions guidelines: a survey among dental healthcare workers in	prevalence Not possible to extract data on HBV serological markers prevalence Not possible to extract data on HBV serological markers prevalence No abstract and full text available No data on HBV serological markers prevalence
351 352 353 354 355 356	Hamid, 1997 Hamid, 2007 Hamilton, 2010 Hanafi, 2011 Hankins, 1987 Hanslik, 2000 Haridi, 2016	Inadequate hepatitis B vaccination and post-exposure evaluation among transplant surgeons: Prevalence, correlates, and implications. Hepatitis B immunization of hospital employees in an endemic area: should we screen? Hepatitis and the healthcare worker - a pakistani perspective. Epidemiology of hepatitis B among professional male athletes in Qatar. Needlestick injuries among health care workers of University of Alexandria hospitals. Hepatitis B vaccine and hepatitis B markers: cost effectiveness of screening prehospital personnel. A survey of physicians' vaccine risk perception and immunization practices for subjects with immunological diseases. Compliance with infection control standard precautions guidelines: a survey among dental healthcare workers in Hail Region, Saudi Arabia.	prevalence Not possible to extract data on HBV serological markers prevalence Not possible to extract data on HBV serological markers prevalence No abstract and full text available No data on HBV serological markers prevalence
351 352 353 354 355 356	Hamid, 1997 Hamid, 2007 Hamilton, 2010 Hanafi, 2011 Hankins, 1987 Hanslik, 2000	Inadequate hepatitis B vaccination and post-exposure evaluation among transplant surgeons: Prevalence, correlates, and implications. Hepatitis B immunization of hospital employees in an endemic area: should we screen? Hepatitis and the healthcare worker - a pakistani perspective. Epidemiology of hepatitis B among professional male athletes in Qatar. Needlestick injuries among health care workers of University of Alexandria hospitals. Hepatitis B vaccine and hepatitis B markers: cost effectiveness of screening prehospital personnel. A survey of physicians' vaccine risk perception and immunization practices for subjects with immunological diseases. Compliance with infection control standard precautions guidelines: a survey among dental healthcare workers in Hail Region, Saudi Arabia. Prevalence of Needlestick Injuries, Attitude Changes,	Prevalence Not possible to extract data on HBV serological markers prevalence Not possible to extract data on HBV serological markers prevalence No abstract and full text available No data on HBV serological markers prevalence
351 352 353 354 355 356	Hamid, 1997 Hamid, 2007 Hamilton, 2010 Hanafi, 2011 Hankins, 1987 Hanslik, 2000 Haridi, 2016	Inadequate hepatitis B vaccination and post-exposure evaluation among transplant surgeons: Prevalence, correlates, and implications. Hepatitis B immunization of hospital employees in an endemic area: should we screen? Hepatitis and the healthcare worker - a pakistani perspective. Epidemiology of hepatitis B among professional male athletes in Qatar. Needlestick injuries among health care workers of University of Alexandria hospitals. Hepatitis B vaccine and hepatitis B markers: cost effectiveness of screening prehospital personnel. A survey of physicians' vaccine risk perception and immunization practices for subjects with immunological diseases. Compliance with infection control standard precautions guidelines: a survey among dental healthcare workers in Hail Region, Saudi Arabia. Prevalence of Needlestick Injuries, Attitude Changes, and Prevention Practices Over 12 Years in an Urban	prevalence Not possible to extract data on HBV serological markers prevalence Not possible to extract data on HBV serological markers prevalence No abstract and full text available No data on HBV serological markers prevalence
351 352 353 354 355 356	Hamid, 1997 Hamid, 2007 Hamilton, 2010 Hanafi, 2011 Hankins, 1987 Hanslik, 2000 Haridi, 2016	Inadequate hepatitis B vaccination and post-exposure evaluation among transplant surgeons: Prevalence, correlates, and implications. Hepatitis B immunization of hospital employees in an endemic area: should we screen? Hepatitis and the healthcare worker - a pakistani perspective. Epidemiology of hepatitis B among professional male athletes in Qatar. Needlestick injuries among health care workers of University of Alexandria hospitals. Hepatitis B vaccine and hepatitis B markers: cost effectiveness of screening prehospital personnel. A survey of physicians' vaccine risk perception and immunization practices for subjects with immunological diseases. Compliance with infection control standard precautions guidelines: a survey among dental healthcare workers in Hail Region, Saudi Arabia. Prevalence of Needlestick Injuries, Attitude Changes,	Prevalence Not possible to extract data on HBV serological markers prevalence Not possible to extract data on HBV serological markers prevalence No abstract and full text available No data on HBV serological markers prevalence

360	Havlichek, 1997	Age-related hepatitis B seroconversion rates in health care workers.	No data on HBV serological markers prevalence
261	Hayashi, 1987	Hepatitis B virus transmission in nursery schools.	No data on HBV serological
361	nayasiii, 1987	Hepatius B virus transmission in nursery schools.	
2.62	TI 1 1 2000	C + 1 C + 2 11 22 D + 14	markers prevalence
362	Helcl, 2000	Control of occupational hepatitis B among healthcare	No data on HBV serological
		workers in the Czech Republic, 1982 to 1995.	markers prevalence
363	Herruzo-Cabrera,	Predictive equation for acquisition of hepatitis B in	No Laboratory-Confirmed
	1993	hospital workers in a general hospital.	data
364	Hersey, 1994	Use of infection control guidelines by workers in	No data on HBV serological
		healthcare facilities to prevent occupational transmission	markers prevalence
		of HBV and HIV: results from a national survey.	
365	Herzig, 2017	Infection Trends in US Nursing Homes, 2006-2013.	No data on HBV serological
			markers prevalence
366	Hesham, 2005	Hepatitis B immunisation status among health care	No data on HBV serological
	11001141111, 2000	workers in two Kuala Lumpur hospitals.	markers prevalence
367	Hicks, 1989	Work-related risk factors for hepatitis B virus infection in	No abstract and full text
307	111cks, 1707	personnel of a children's hospital.	available
368	Hindy, 1995	Hepatitis B and C viruses among Egyptian dentists.	No abstract and full text
300	пшау, 1993	Repaired B and C viruses among Egyptian dentists.	
260	TT: 1 2012		available
369	Hizel, 2013	Evaluation of the hepatitis B vaccination and risky	No abstract and full text
		contacts of health care workers in a university hospital.	available
370	Hlady, 1993	Patient-to-patient transmission of hepatitis B in a	No data on HBV serological
		dermatology practice.	markers prevalence
371	Hochreiter, 1988	Epidemiology of needlestick injury in emergency	No data on HBV serological
		medical service personnel.	markers prevalence
372	Hoey, 1998	When the physician is the vector.	No data on HBV serological
			markers prevalence
373	Hofherr, 1993	Physician experience with human immunodeficiency	No abstract and full text
	•	virus type 1 or hepatitis B virus testing in San Diego	available
		County: Methods for a census survey.	
374	Holland, 1992	Uptake of hepatitis B vaccination amongst West	No data on HBV serological
		Midlands radiologists.	markers prevalence
375	Hosoglu, 2011	Healthcare workers' compliance with universal	No Laboratory-Confirmed
0,0	11050810, 2011	precautions in Turkey.	data
376	Howard, 1989	A survey of cross infection control in general dental	No abstract and full text
370	110 ward, 1707	practice in England.	available
377	Hsieh, 2006	Occupational blood and infectious body fluid exposures	Review
311	1151011, 2000	in a teaching hospital: a three-year review.	Review
378	Huang, 2017	Sharp instrument injuries among hospital healthcare	No Laboratory-Confirmed
310	Truang, 2017		I
270	II-1 2000	workers in mainland China: A cross-sectional study.	No all data
379	Hulme, 2009	Incidence of needlestick injuries among Ugandan student	No abstract and full text
200	YY 1 4000	nurses in a rural hospital.	available
380	Hurlen, 1979	Viral hepatitis in oral surgery and periodontics in	No Laboratory-Confirmed
		Norway.	data
381	Hurlen, 1979	Frequency of hepatitis in dental health personnel in	No Laboratory-Confirmed
		Norway.	data
382	Ibekwe, 2006	Hepatitis B vaccination status among health workers in	No data on HBV serological
		Enugu, Nigeria.	markers prevalence
383	Iliyasu, 2016	Knowledge and practices of infection control among	No data on HBV serological
		healthcare workers in a Tertiary Referral Center in	markers prevalence
		North-Western Nigeria.	, î
384	Ip, 2015	Seroprevalences of hepatitis B virus and hepatitis c virus	No data on HBV serological
	* / -	among participants of an Asian health fair in the lower	markers prevalence
		Mainland, British Columbia.	
385	Inpolito 1999	Mainland, British Columbia. Surveillance of occupational exposure to bloodborne	No data on HRV serological
385	Ippolito, 1999	Surveillance of occupational exposure to bloodborne	No data on HBV serological
385	Ippolito, 1999	Surveillance of occupational exposure to bloodborne pathogens in health care workers: the Italian national	markers prevalence among
		Surveillance of occupational exposure to bloodborne pathogens in health care workers: the Italian national programme.	markers prevalence among HCWs
385	Ippolito, 1999 Iqbal, 2013	Surveillance of occupational exposure to bloodborne pathogens in health care workers: the Italian national	markers prevalence among

387	Isara, 2012	Prevalence of occupational accidents/injuries among health care workers in a federal medical centre in Southern Nigeria.	No Laboratory-Confirmed data
388	Islahi, 2018	Prevalence of needle-stick injuries among health-care workers in a tertiary care centre in North India.	No data on HBV serological markers prevalence
389	Israsena, 1992	Factors influencing acceptance of hepatitis B vaccination by hospital personnel in an area hyperendemic for hepatitis B.	No data on HBV serological markers prevalence
390	Jackson, 1978	Hepatitis B antigen and antibody. Prevalence among New York dentists.	No abstract and full text available
391	Jackson, 2004	Hepatitis B and hepatitis C: Occupational considerations for the anesthesiologist.	Review
392	Jacob, 2010	Sharps injuries among health care workers in the United Arab Emirates.	No data on HBV serological markers prevalence
393	Jacobson, 1983	Injuries of hospital employees from needles and sharp objects.	No data on HBV serological markers prevalence
394	Jacobson, 1989	Acceptance of hepatitis B vaccine among dental health care workers.	No data on HBV serological markers prevalence
395	Jahic, 2018	Epidemiological Characteristics of the Accidental Exposures to Blood-Borne Pathogens Among Workers in the Hospital.	No Laboratory-Confirmed data
396	Jain, 2016	Practices of health care personnel regarding occupational exposure.	No Laboratory-Confirmed data
397	James, 1985	A survey of hepatitis B vaccination programs for hospital employees.	No data on HBV serological markers prevalence
398	Javadi, 2007	Evaluation of needle-stick injuries among health care workers in Isfahan province, Islamic Republic of Iran [4].	No abstract and full text available
399	Jeffersonb, 2000	Vaccines for preventing hepatitis B in health-care workers.	Review
400	Jeffries, 1995	Viral hazards to and from health care workers.	No data on HBV serological markers prevalence
401	Joardar, 2008	Needle sticks injury among nurses involved in patient care: a study in two medical college hospitals of West Bengal.	Not possible to extract data on HBV serological markers prevalence
402	Johnston, 2003	Nosocomial transmission of bloodborne viruses from infected health care workers to patients.	No data on HBV serological markers prevalence
403	Johnston, 2005	Needlestick injuries, management and education: a role for emergency medicine?	No data on HBV serological markers prevalence
404	Joseph, 2014	Needlestick injuries among healthcare workers of a tertiary care hospital in South India.	No data on HBV serological markers prevalence
405	Joshi, 1986	Hepatitis B virus state among donors & hospital staffa serological survey using different techniques.	No abstract and full text available
406	Joshi, 2013	A study of immune status to HBV infection in health care workers in a tertiary health care centre.	Not possible to extract data on HBV serological markers prevalence
407	Joshi, 2014	Hepatitis B vaccination status among healthcare workers in a tertiary care hospital in Haldwani City of Nainital, Uttarakhand, India.	No abstract and full text available
408	Joshi, 2018	Management of accidental exposure to HBVand HCV in health care workers: An experience at tertiary care hospital.	No abstract and full text available
409	Joshi, 2018	Incidence of accidental exposures to HBV and HCV in health care workers.	No abstract and full text available
410	Jovanovich, 1983	The risk of hepatitis B among select employee groups in an urban hospital.	No data on HBV serological
		an urban nospital.	markers prevalence

412	Kalemaki, 2020	Vaccination coverage of general practitioners: a cross- sectional study from Greece.	No Laboratory-Confirmed data
112	Valiab 1007		
413	Kalish, 1987	Prevalence of antibody to hepatitis B virus in foreign-	Not possible to extract data
		born hospital employees.	on HBV serological markers
111	V-1 2012	Variable of the first section of the	prevalence
414	Kaltsas, 2013	Vaccinations for healthcare personnel: Update on	Review
41.7	IZ 2017	influenza, hepatitis B, and pertussis.	N 1 / MDV 1 ' 1
415	Kao, 2016	Prevalence of chronic diseases among physicians in	No data on HBV serological
41.6	TZ 1 × 2010	Taiwan: a population-based cross-sectional study.	markers prevalence
416	Karadağ, 2010	Occupational exposure to blood and body fluids among a	No data on HBV serological
		group of Turkish nursing and midwifery students during	markers prevalence
		clinical practise training: frequency of needlestick and	
415	77 2014	sharps injuries.	N 1 1 G G
417	Karageorgou, 2014	Vaccination coverage and susceptibility against vaccine-	No Laboratory-Confirmed
		preventable diseases of healthcare students in Athens,	data
		Greece.	
418	Karimi, 2010	Evaluation of vaccine induced immunity to hepatitis b	No data on HBV serological
		virus among health care workers in a university hospital	markers prevalence
		in Iran.	
419	Karvelas, 2015	HBV knowledge, attitudes and vaccination coverage of	No abstract and full text
		healthcare workers in university general hospital.	available
420	Kasatpibal, 2013	Prevalence and factors affecting needlesticks and sharp	No data on HBV serological
		injuries among operating room nursing personnel in	markers prevalence
		Thailand.	
421	Kaspar, 1991	Percutaneous injury during dermatologic surgery.	No Laboratory-Confirmed
			data
422	Kassa, 2016	Occupational exposure to bloodborne pathogens among	No Laboratory-Confirmed
		health care workers in Botswana: Reporting and	data
		utilization of postexposure prophylaxis.	
423	Kato-Maeda, 2000	Bloodborne viral infections in patients attending an	No data on HBV serological
		emergency room in Mexico City: estimate of	markers prevalence among
		seroconversion probability in healthcare workers after an	HCWs
		occupational exposure.	
424	Keel, 2016	Assessing the impact of a nurse-delivered home dried	No data on HBV serological
		blood spot service on uptake of testing for household	markers prevalence
		contacts of hepatitis B-infected pregnant women across	
		two London trusts.	
425	Kennedy, 1998	The use of a quality-improvement approach to reduce	No abstract and full text
		needlestick injuries in a Saudi Arabian hospital.	available
426	Kerala, 2011	Prevalence and trends of Hepatitis Bvirus immunity	No abstract and full text
		among vaccinated healthcare workers in a tertiary care	available
		center.	
427	Kermode, 2005	Occupational exposure to blood and risk of bloodborne	No data on HBV serological
		virus infection among health care workers in rural north	markers prevalence
		Indian health care settings.	
428	Kesli, 2017	Detection of seropositivity rates of blood-borne viruses	No abstract and full text
		among dentists in province of afyonkarahisar.	available
429	Kevitt, 2015	Sharps injuries in a teaching hospital: changes over a	Review
		decade.	
430	Kevorkyan, 2012	A survey of occupational risk exposures and behaviour of	No data on HBV serological
	•	healthcare workers.	markers prevalence
431	Khalil, 2015	Willingness of Saudi dental professionals to treat	No Laboratory-Confirmed
		Hepatitis B virus-infected patients.	data
122	TZ1 1'1' 2011	Hepatitis B and hepatocellular carcinoma screening	No data on HBV serological
432	Khalili, 2011	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
432	Khalili, 2011	among Asian Americans: Survey of safety net healthcare	markers prevalence
432	Khalili, 2011	among Asian Americans: Survey of safety net healthcare providers.	markers prevalence
432	Khaiii, 2011 Khan, 2000	among Asian Americans: Survey of safety net healthcare providers.A high anti-HBs response in Turkish students of nursing	markers prevalence Comment on an article

434	Khokhar, 2009	Oncologists and hepatitis B: A survey to determine	No data on HBV serological
		current level of awareness and practice of antiviral	markers prevalence
		prophylaxis to prevent reactivation.	•
435	Khuri-Bulos, 1997	Epidemiology of needlestick and sharp injuries at a	Sample size $<$ or $= 10$
	,	university hospital in a developing country: a 3-year	participants
		prospective study at the Jordan University Hospital, 1993	
		through 1995.	
436	Kiel, 1986	Influence of country of origin on prevalence of hepatitis	Review
		B markers among employees in a small suburban	
		hospital.	
437	Killian, 2016	Vaccine hesitancy among general practitioners:	No data on HBV serological
	•	evaluation and comparison of their immunisation practice	markers prevalence
		for themselves, their patients and their children.	
438	Kindrick, 2002	Occupational exposure to blood-borne pathogens:	No data on HBV serological
	, , , , ,	Emerging issues from the National HIV/AIDS Clinicians'	markers prevalence
		Consultation Center.	r r
439	kinlin, 2010	Use of gloves and reduction of risk of injury caused by	Not possible to extract data
	,	needles or sharp medical devices in healthcare workers:	on HBV serological markers
		Results from a case-crossover study.	prevalence
440	Kirkman-Liff, 1984	Cost of hepatitis B prevention in hospital employees:	Not possible to extract data
	, , , ,	post-exposure prophylaxis.	on HBV serological markers
			prevalence
441	Kirkman-Liff, 1984	The risk and cost of hepatitis B exposures in hospital	No abstract and full text
	, , , , ,	housekeeping personnel.	available
442	Kisic-Tepavc evic,	Predictors of hepatitis B vaccination status in healthcare	No data on HBV serological
	2017	workers in Belgrade, Serbia, December 2015.	markers prevalence
443	Kjaergard, 1992	Accidental injuries and blood exposure to cardiothoracic	No data on HBV serological
	rijuorgara, 1992	surgical teams.	markers prevalence
444	Ko, 2017	Knowledge, Current Status, and Barriers toward	No data on HBV serological
7.7.7	10, 2017	Healthcare Worker Vaccination among Family Medicine	markers prevalence
		Resident Participants in a Web-Based Survey in Korea.	markers prevarence
445	Kocks, 1997	Hepatitis B immunisation for adults and health care	No abstract and full text
773	Rocks, 1991	workers in South Africa.	available
446	Kocur, 2016	Analysis of occupational exposures to blood registered in	No data on HBV serological
110	Rocal, 2010	the General Hospital in Zabrze in the years 2006-2015.	markers prevalence
447	Konlan, 2017	TOPIC: "The level of nurses' knowledge on occupational	No abstract and full text
7-77	Roman, 2017	post exposure to hepatitis B infection in the Tamale	available
		metropolis, Ghana"	uvunuoie
448	Kotzee, 2006	HIV and hepatitis B coinfection in Southern Africa: A	Review
110	1101200, 2000	review for general practitioners.	Teview
449	Krishnan, 2019	108. HEPATITIS B VACCINATION IN DUKE	No data on HBV serological
117	Tarisiman, 2019	UNIVERSITY AND DUKE REGIONAL HOSPITAL	markers prevalence
		NEWBORN NURSERIES.	markers prevarence
450	Kumar, 2015	A Cross-sectional Study on Hepatitis B Vaccination	No data on HBV serological
430	Kumar, 2015	Status and Post-exposure Prophylaxis Practices Among	markers prevalence
		Health Care Workers in Teaching Hospitals of	markers prevarence
		Mangalore.	
451	Kuo, 1999	Decreasing occupational risk related to blood-borne	No data on HBV serological
751	1200, 1777	viruses in cardiovascular surgery in Paris, France.	markers prevalence
452	Kuupiel, 2019	Accessibility of pregnancy-related point-of-care	No data on HBV serological
¬ J∠	Kuupici, 2017	diagnostic tests for maternal healthcare in rural primary	markers prevalence
		healthcare facilities in Northern Ghana: A cross-sectional	markers prevalence
152	Vyyanian 1007	Survey. Handitis P program for health agra personnal Education	No data on HDV assals at a 1
453	Kwapien, 1987	Hepatitis B program for health care personnel. Education,	No data on HBV serological
151	1ama 1007	serologic surveillance, immunization.	markers prevalence
454	lane, 1997	A survey of policies at children's hospitals regarding	No data on HBV serological
		immunity of healthcare workers: are physicians	markers prevalence
		protected?	

455	Lange, 1995	Prevalence of hepatitis B, hepatitis C, and human immunodeficiency virus markers among hospital	No data on HBV serological markers prevalence
456	Lanphear, 1994	employment applicants. Trends and patterns in the transmission of bloodborne	Review
457	Lanphear, 1997	pathogens to health care workers. Transmission and control of bloodborne viral hepatitis in health care workers.	Review
458	Laraqui, 2008	Assessing knowledge, attitude, and practice on occupational blood exposure in caregiving facilities, in Morocco.	No data on HBV serological markers prevalence
459	Larke, 1983	Hepatitis B and the dental profession: response to hepatitis B vaccine in Canadian dental personnel. A study by the Canadian Red Cross Collaborative Group.	No data on HBV serological markers prevalence
460	Larouze, 1987	Infection with hepatitis A and B viruses in French volunteers working in tropical Africa.	Not possible to extract data on HBV serological markers prevalence
461	Larroque, 1990	Hepatitis B at the Dakar Dental School.	No abstract and full text available
462	Lazenby, 2011	Blood-borne viruses: Are we taking them seriously? A survey of UK oral and maxillofacial surgeons.	No data on HBV serological markers prevalence
463	L'Ecuyer, 1998	Tuberculosis, hepatitis B, rubella, rubeola, and varicella infection and immunity among medical school employees.	No abstract and full text available
464	Lee, 1997	Epidemiology of hepatitis B vaccine acceptance among urban paramedics and emergency medical technicians.	No data on HBV serological markers prevalence
465	Lee, 2005	Needlestick injuries in the United States. Epidemiologic, economic, and quality of life issues.	No data on HBV serological markers prevalence
466	Lee, 2011	HBV screening and prevention: Evaluating barriers for primary care physicians.	No abstract and full text available
467	Lee, 2017	Occupational blood exposures in health care workers: incidence, characteristics, and transmission of bloodborne pathogens in South Korea.	No data on HBV serological markers prevalence among HCWs
468	Leers, 1995	Prevalence of hepatitis B antibodies in hospital personnel.	Not possible to extract data on HBV serological markers prevalence
469	Leliopoulor, 1999	Nurses failure to appreciate the risks of infection due to needle stick accidents: A hospital based survey.	No data on HBV serological markers prevalence
470	Lettau, 1992	Human immunodeficiency virus testing experience and hepatitis B vaccination and testing status of healthcare workers in South Carolina: implications for compliance with US Public Health Service guidelines.	No data on HBV serological markers prevalence
471	Leung, 2014	Are they protected? Immunity to vaccine-preventable diseases in healthcare workers at an Australian hospital.	No data on HBV serological markers prevalence
472	Levi, 2013	Awareness of hepatitis B and C screening and patient management guidelines among health professionals in six European countries.	No data on HBV serological markers prevalence
473	Levin, 1974	Hepatitis B transmission by dentists.	No abstract and full text available
474	Levitz, 1995	Immunization with high-dose intradermal recombinant hepatitis B vaccine in healthcare workers who failed to respond to intramuscular vaccination.	No abstract and full text available
475	Libby, 2014	Student vaccination requirements of U.S. health professional schools: a national survey.	No data on HBV serological markers prevalence
476	Lin, 1986	Sero-epidemiological study on hepatitis A and B virus infection among dentists in the Philippines.	No abstract and full text available
477	Lin, 2007	Low seroprevalence of hepatitis B surface antibody among nursing students in Taiwan: an implication for boosting.	No abstract and full text available

478	Lin, 2011	Waning immunity and booster responses in nursing and medical technology students who had received plasmaderived or recombinant hepatitis B vaccine during infancy.	Not possible to extract data on HBV serological markers prevalence
479	Lin, 2011	Status of HBV infection and vaccination among health care workers in a public teaching hospital.	No abstract and full text available
480	Lin, 2019	A survey of sharps injuries and occupational infections among healthcare workers in Shanghai.	No Laboratory-Confirmed data
481	Lindley, 2011	Student vaccination requirements of U.S. health professional schools: a survey.	No Laboratory-Confirmed data
482	Ling, 2000	Sharps and needlestick injuries: the impact of hepatitis B vaccination as an intervention measure.	No data on HBV serological markers prevalence
483	Little, 1988	Cost-effective pre-vaccine screening of hepatitis B infection in hospital workers: a seroepidemiological study.	No data on HBV serological markers prevalence
484	Liu, 2013	Occupational blood exposure and compliance to universal precautions: A cross-sectional survey among healthcare workers in Beijing, China.	No data on HBV serological markers prevalence
485	Livengood, 1989	Hepatitis B and workers in institutions for the mentally retarded: Risk of infection for staff in patient care.	No data on HBV serological markers prevalence
486	Llewellyn, 1994	Hepatitis B vaccination: how many doctors are fully covered?	Not possible to extract data on HBV serological markers prevalence
487	LoGrippo, 1973	Incidence of hepatitis and Australia antigenemia among laboratory workers.	No abstract and full text available
488	Lohiya, 1984	Occupational exposure to hepatitis B virus. Analysis of indications for hepatitis B vaccine.	No abstract and full text available
489	Loulergue, 2009	Knowledge, attitudes and vaccination coverage of healthcare workers regarding occupational vaccinations.	No Laboratory-Confirmed data
490	Loulergue, 2013	Vaccine coverage of healthcare students in hospitals of the Paris region in 2009: the Studyvax survey.	Not possible to extract data on HBV serological markers prevalence
491	lyunggren, 1988	Varying antibody response in hospital staff vaccinated against hepatitis B.	No data on HBV serological markers prevalence
492	MacCannell, 2010	Occupational Exposure of Health Care Personnel to Hepatitis B and Hepatitis C: Prevention and Surveillance Strategies.	No data on HBV serological markers prevalence
493	Machiya, 2015	Hepatitis B vaccination of healthcare workers at the Princess Marina Hospital, Botswana.	Sample size < or = 10 participants
494	Madani, 2007	Meningococcal, influenza virus, and hepatitis B virus vaccination coverage level among health care workers in Hajj.	Not possible to extract data on HBV serological markers prevalence
495	Maggiore, 2017	Susceptibility to vaccine-preventable diseases and vaccination adherence among healthcare workers in Italy: A cross-sectional survey at a regional acute-care university hospital and a systematic review.	Review
496	Mahboobi, 2010	Hepatitis B virus infection in dentistry: a forgotten topic.	Review
497	Mahesh, Kumar, 2013	Study of needle sticks injuries in a medical college hospital in Northern District of Karnataka.	No abstract and full text available
498	Mahmood, 1999	Prevalence of hepatitis B- core antibodies amongst health care workers.	No abstract and full text available
499	Mahoney, 1997	Progress toward the elimination of hepatitis B virus transmission among health care workers in the United States.	No data on HBV serological markers prevalence
500	Makary, 2007	Needlestick injuries among surgeons in training.	No data on HBV serological markers prevalence
501	Malavaud, 1990	Hepatitis B and hospital personnel.	No abstract and full text available

502	Malavaud, 1990	Vaccination against hepatitis B of Toulouse hospital	No Laboratory-Confirmed
502	M-11 2012	personnel.	data
503	Malka, 2012	Management of accidental exposure to HCV, HBV and HIV in healthcare workers in Romania.	No data on HBV serological markers prevalence
504	Maltezou, 2011	Vaccination policies for health-care workers in acute	No data on HBV serological
304	Wiantezou, 2011	health-care facilities in Europe.	markers prevalence
505	Maltezou, 2012	Attitudes towards mandatory vaccination and vaccination	No data on HBV serological
	,	coverage against vaccine-preventable diseases among	markers prevalence
		health-care workers in tertiary-care hospitals.	manas provincia
506	Maltezou, 2013	Attitudes toward mandatory occupational vaccinations	No Laboratory-Confirmed
		and vaccination coverage against vaccine-preventable	data
		diseases of health care workers in primary health care	
		centers.	
507	Mandić, 2018	Occupational exposure to blood and bodily fluids among	No data on HBV serological
	,	healthcare workers in Serbian general hospitals.	markers prevalence
508	Manian, 1991	Hepatitis vaccination among physicians: a decade later.	No Laboratory-Confirmed
	,		data
509	Manian, 1994	Improving hepatitis B vaccination rates among surgeons.	Not possible to extract data
			on HBV serological markers
			prevalence
510	Mann, 1984	Low prevalence of hepatitis B infections among residents	No data on HBV serological
	•	of an institution for the mentally retarded in New	markers prevalence among
		Mexico.	HCWs
511	Manso, 2003	Compliance with hepatitis B virus vaccination and risk of	No Laboratory-Confirmed
	,	occupational exposure to blood and other body fluids in	data
		intensive care department personnel in Brazil.	
512	Manzoor, 2010	Needle stick injuries in nurses at a tertiary health care	No data on HBV serological
		facility.	markers prevalence
513	Mapstone, 2009	Mass vaccination of health workers in Peru.	No data on HBV serological
0.10	1.1apstone, 2009	112400 (4000114110110110110110110110110110110110	markers prevalence
514	Marković-Denić,	Occupational exposures to blood and body fluids among	No data on HBV serological
	2013	health care workers at university hospitals.	markers prevalence
515	Marshall, 2017	Vaccination coverage among social and healthcare	No Laboratory-Confirmed
		workers in ten countries of Samu-social international	data
		sites.	
516	Martin, 1986	The prevalence of hepatitis B in employees of small,	Duplicate study
010	1714174111, 1700	rural hospitals. Implications for vaccine administration.	
517	Martin, 2015	Accidental needlestick exposures linked to the	No data on HBV serological
	,	administration of local anesthesia by healthcare workers.	markers prevalence
518	Martins, 2012	Age and years in practice as factors associated with	No data on HBV serological
	,	needlestick and sharps injuries among health care	markers prevalence
		workers in a Portuguese hospital.	
519	Maruna, 1986	Epidemiology and risk calculation of hepatitis-B as an	Not possible to extract data
	, -, -, -,	occupational disease in the Austrian health service.	on HBV serological markers
			prevalence
520	Masoumi-Asl, 2017	Epidemiology of needlestick injuries among healthcare	No data on HBV serological
		workers in Tehran, Iran: A cross-sectional study.	markers prevalence
521	Mateen, 2008	Needlestick injuries among electromyographers.	No data on HBV serological
	,	,	markers prevalence
522	Mathieu, 1980	Viral hepatitis. Occupational hazard for anaesthesists	No abstract and full text
	,	(author's transl).	available
523	Mathieu, 1980	Viral hepatitis. Occupational hazard for anesthesists.	Duplicate study
524	Mattey, 1997	Hepatitis B vaccine for school staff at risk.	No data on HBV serological
\ \(\sigma_{-\tau} \)		Trepulate 2 (accents for believe state at 110K.	markers prevalence
525	Matthews, 1986	Acceptance of hepatitis B vaccine by general dental	No abstract and full text
223	1.144410, 1700	practitioners in the United Kingdom.	available
526	Maz, 1990	Needlestick injuries in anaesthetists.	No data on HBV serological
			markers prevalence

527			
527	Mazi, 2015	Occupational exposure to blood-borne pathogens in a	No data on HBV serological
520	3.012	tertiary hospital: benchmarking using patient days.	markers prevalence
528	Mbaeyi, 2012	Assessment of management policies and practices for	No data on HBV serological
		occupational exposure to bloodborne pathogens in dialysis facilities.	markers prevalence
529	Mbaisi, 2013	Prevalence and factors associated with percutaneous	No data on HBV serological
	1.104.151, 2016	injuries and splash exposures among health-care workers	markers prevalence
		in a provincial hospital, Kenya, 2010.	The second results of
530	McCartan, 1987	Awareness and acceptance of hepatitis B vaccine by Irish	No data on HBV serological
	, , , , , , , , , , , , , , , , , , , ,	dental practitioners.	markers prevalence
531	McCarthy, 1998	A comparison of infection control practices of different	No data on HBV serological
	•	groups of oral specialists and general dental practitioners.	markers prevalence
532	McCarthy, 1999	Infection control practices across Canada: do dentists	Not possible to extract data
	•	follow the recommendations?	on HBV serological markers
			prevalence
533	McCarthy, 1999	Compliance with recommended infection control	No data on HBV serological
		procedures among Canadian dentists: Results of a	markers prevalence
		national survey.	_
534	McCarthy, 1999	Occupational injuries and exposures among Canadian	No data on HBV serological
		dentists: the results of a national survey.	markers prevalence
535	McCarthy, 2000	Risk of transmission of viruses in the dental office.	No data on HBV serological
			markers prevalence
536	McCarthy, 2000	A Survey of Final-Year Dental, Medical and Nursing	No data on HBV serological
		Students: Occupational Injuries and Infection Control.	markers prevalence
537	McCarthy, 2013	Injuries to health workers are common but safety checks	No data on HBV serological
		are rare, report finds.	markers prevalence
538	McEwen, 2005	Actions and beliefs related to hepatitis B and influenza	No data on HBV serological
		immunization among registered nurses in Texas.	markers prevalence
539	McGaw, 2000	Dental Students with Hepatitis B e Antigen: A Survey of	No data on HBV serological
		Canadian Dental Schools.	markers prevalence
540	McGinnis, 1976	Occurrence of hepatitis B serum antigen and antibody in	No abstract and full text
		the faculty of the University of Tennessee College of	available
		Dentistry.	
541	McGuff , 1989	Needlestick injuries in blood collection staff. A	No data on HBV serological
5.1		retrospective analysis.	markers prevalence
542	McKenzie, 1992	Hepatitis B vaccination: A survey of health care workers'	No abstract and full text
542	·	Hepatitis B vaccination: A survey of health care workers' knowledge and acceptance.	No abstract and full text available
	McKenzie, 1992 McLean, 1987	Hepatitis B vaccination: A survey of health care workers' knowledge and acceptance. Prevalence of hepatitis B serologic markers in	No abstract and full text available Not possible to extract data
542	·	Hepatitis B vaccination: A survey of health care workers' knowledge and acceptance.	No abstract and full text available Not possible to extract data on HBV serological markers
542	McLean, 1987	Hepatitis B vaccination: A survey of health care workers' knowledge and acceptance. Prevalence of hepatitis B serologic markers in community hospital personnel.	No abstract and full text available Not possible to extract data on HBV serological markers prevalence
542	·	Hepatitis B vaccination: A survey of health care workers' knowledge and acceptance. Prevalence of hepatitis B serologic markers in community hospital personnel. Needlestick injuries in a tertiary care centre in Mumbai,	No abstract and full text available Not possible to extract data on HBV serological markers prevalence No data on HBV serological
542543544	McLean, 1987 Mehta, 2005	Hepatitis B vaccination: A survey of health care workers' knowledge and acceptance. Prevalence of hepatitis B serologic markers in community hospital personnel. Needlestick injuries in a tertiary care centre in Mumbai, India.	No abstract and full text available Not possible to extract data on HBV serological markers prevalence No data on HBV serological markers prevalence
542	McLean, 1987	Hepatitis B vaccination: A survey of health care workers' knowledge and acceptance. Prevalence of hepatitis B serologic markers in community hospital personnel. Needlestick injuries in a tertiary care centre in Mumbai, India. Interventions to reduce needle stick injuries at a tertiary	No abstract and full text available Not possible to extract data on HBV serological markers prevalence No data on HBV serological markers prevalence No data on HBV serological
542543544545	McLean, 1987 Mehta, 2005 Mehta, 2010	Hepatitis B vaccination: A survey of health care workers' knowledge and acceptance. Prevalence of hepatitis B serologic markers in community hospital personnel. Needlestick injuries in a tertiary care centre in Mumbai, India. Interventions to reduce needle stick injuries at a tertiary care centre.	No abstract and full text available Not possible to extract data on HBV serological markers prevalence No data on HBV serological markers prevalence No data on HBV serological markers prevalence
542543544	McLean, 1987 Mehta, 2005	Hepatitis B vaccination: A survey of health care workers' knowledge and acceptance. Prevalence of hepatitis B serologic markers in community hospital personnel. Needlestick injuries in a tertiary care centre in Mumbai, India. Interventions to reduce needle stick injuries at a tertiary care centre. Status of occupational hazards and their prevention	No abstract and full text available Not possible to extract data on HBV serological markers prevalence No data on HBV serological
542543544545	McLean, 1987 Mehta, 2005 Mehta, 2010	Hepatitis B vaccination: A survey of health care workers' knowledge and acceptance. Prevalence of hepatitis B serologic markers in community hospital personnel. Needlestick injuries in a tertiary care centre in Mumbai, India. Interventions to reduce needle stick injuries at a tertiary care centre. Status of occupational hazards and their prevention among dental professionals in Chandigarh, India: A	No abstract and full text available Not possible to extract data on HBV serological markers prevalence No data on HBV serological markers prevalence No data on HBV serological markers prevalence
542543544545546	McLean, 1987 Mehta, 2005 Mehta, 2010 Mehta, 2013	Hepatitis B vaccination: A survey of health care workers' knowledge and acceptance. Prevalence of hepatitis B serologic markers in community hospital personnel. Needlestick injuries in a tertiary care centre in Mumbai, India. Interventions to reduce needle stick injuries at a tertiary care centre. Status of occupational hazards and their prevention among dental professionals in Chandigarh, India: A comprehensive questionnaire survey.	No abstract and full text available Not possible to extract data on HBV serological markers prevalence No data on HBV serological markers prevalence
542543544545	McLean, 1987 Mehta, 2005 Mehta, 2010	Hepatitis B vaccination: A survey of health care workers' knowledge and acceptance. Prevalence of hepatitis B serologic markers in community hospital personnel. Needlestick injuries in a tertiary care centre in Mumbai, India. Interventions to reduce needle stick injuries at a tertiary care centre. Status of occupational hazards and their prevention among dental professionals in Chandigarh, India: A comprehensive questionnaire survey. Risk management of HBsAg or anti-HCV positive	No abstract and full text available Not possible to extract data on HBV serological markers prevalence No data on HBV serological markers prevalence
542543544545546	McLean, 1987 Mehta, 2005 Mehta, 2010 Mehta, 2013 Mele, 2001	Hepatitis B vaccination: A survey of health care workers' knowledge and acceptance. Prevalence of hepatitis B serologic markers in community hospital personnel. Needlestick injuries in a tertiary care centre in Mumbai, India. Interventions to reduce needle stick injuries at a tertiary care centre. Status of occupational hazards and their prevention among dental professionals in Chandigarh, India: A comprehensive questionnaire survey. Risk management of HBsAg or anti-HCV positive healthcare workers in hospital.	No abstract and full text available Not possible to extract data on HBV serological markers prevalence No data on HBV serological markers prevalence
542543544545546	McLean, 1987 Mehta, 2005 Mehta, 2010 Mehta, 2013	Hepatitis B vaccination: A survey of health care workers' knowledge and acceptance. Prevalence of hepatitis B serologic markers in community hospital personnel. Needlestick injuries in a tertiary care centre in Mumbai, India. Interventions to reduce needle stick injuries at a tertiary care centre. Status of occupational hazards and their prevention among dental professionals in Chandigarh, India: A comprehensive questionnaire survey. Risk management of HBsAg or anti-HCV positive healthcare workers in hospital. Personalized education improves hepatitis B vaccination	No abstract and full text available Not possible to extract data on HBV serological markers prevalence No data on HBV serological
542543544545546547548	McLean, 1987 Mehta, 2005 Mehta, 2010 Mehta, 2013 Mele, 2001 Memish, 1998	Hepatitis B vaccination: A survey of health care workers' knowledge and acceptance. Prevalence of hepatitis B serologic markers in community hospital personnel. Needlestick injuries in a tertiary care centre in Mumbai, India. Interventions to reduce needle stick injuries at a tertiary care centre. Status of occupational hazards and their prevention among dental professionals in Chandigarh, India: A comprehensive questionnaire survey. Risk management of HBsAg or anti-HCV positive healthcare workers in hospital. Personalized education improves hepatitis B vaccination rate among physicians in Saudi Arabia.	No abstract and full text available Not possible to extract data on HBV serological markers prevalence No data on HBV serological markers prevalence
542543544545546	McLean, 1987 Mehta, 2005 Mehta, 2010 Mehta, 2013 Mele, 2001	Hepatitis B vaccination: A survey of health care workers' knowledge and acceptance. Prevalence of hepatitis B serologic markers in community hospital personnel. Needlestick injuries in a tertiary care centre in Mumbai, India. Interventions to reduce needle stick injuries at a tertiary care centre. Status of occupational hazards and their prevention among dental professionals in Chandigarh, India: A comprehensive questionnaire survey. Risk management of HBsAg or anti-HCV positive healthcare workers in hospital. Personalized education improves hepatitis B vaccination rate among physicians in Saudi Arabia. Epidemiology of needlestick and sharps injuries in a	No abstract and full text available Not possible to extract data on HBV serological markers prevalence No data on HBV serological
542543544545546547548549	McLean, 1987 Mehta, 2005 Mehta, 2010 Mehta, 2013 Mele, 2001 Memish, 1998 Memish, 2002	Hepatitis B vaccination: A survey of health care workers' knowledge and acceptance. Prevalence of hepatitis B serologic markers in community hospital personnel. Needlestick injuries in a tertiary care centre in Mumbai, India. Interventions to reduce needle stick injuries at a tertiary care centre. Status of occupational hazards and their prevention among dental professionals in Chandigarh, India: A comprehensive questionnaire survey. Risk management of HBsAg or anti-HCV positive healthcare workers in hospital. Personalized education improves hepatitis B vaccination rate among physicians in Saudi Arabia. Epidemiology of needlestick and sharps injuries in a tertiary care center in Saudi Arabia.	No abstract and full text available Not possible to extract data on HBV serological markers prevalence No data on HBV serological markers prevalence
542543544545546547548	McLean, 1987 Mehta, 2005 Mehta, 2010 Mehta, 2013 Mele, 2001 Memish, 1998	Hepatitis B vaccination: A survey of health care workers' knowledge and acceptance. Prevalence of hepatitis B serologic markers in community hospital personnel. Needlestick injuries in a tertiary care centre in Mumbai, India. Interventions to reduce needle stick injuries at a tertiary care centre. Status of occupational hazards and their prevention among dental professionals in Chandigarh, India: A comprehensive questionnaire survey. Risk management of HBsAg or anti-HCV positive healthcare workers in hospital. Personalized education improves hepatitis B vaccination rate among physicians in Saudi Arabia. Epidemiology of needlestick and sharps injuries in a tertiary care center in Saudi Arabia. Factors relating to acceptance of hepatitis b virus	No abstract and full text available Not possible to extract data on HBV serological markers prevalence No data on HBV serological markers prevalence
542543544545546547548549	McLean, 1987 Mehta, 2005 Mehta, 2010 Mehta, 2013 Mele, 2001 Memish, 1998 Memish, 2002	Hepatitis B vaccination: A survey of health care workers' knowledge and acceptance. Prevalence of hepatitis B serologic markers in community hospital personnel. Needlestick injuries in a tertiary care centre in Mumbai, India. Interventions to reduce needle stick injuries at a tertiary care centre. Status of occupational hazards and their prevention among dental professionals in Chandigarh, India: A comprehensive questionnaire survey. Risk management of HBsAg or anti-HCV positive healthcare workers in hospital. Personalized education improves hepatitis B vaccination rate among physicians in Saudi Arabia. Epidemiology of needlestick and sharps injuries in a tertiary care center in Saudi Arabia. Factors relating to acceptance of hepatitis b virus vaccination by nursing students in a tertiary hospital,	No abstract and full text available Not possible to extract data on HBV serological markers prevalence No data on HBV serological markers prevalence
542543544545546547548549	McLean, 1987 Mehta, 2005 Mehta, 2010 Mehta, 2013 Mele, 2001 Memish, 1998 Memish, 2002	Hepatitis B vaccination: A survey of health care workers' knowledge and acceptance. Prevalence of hepatitis B serologic markers in community hospital personnel. Needlestick injuries in a tertiary care centre in Mumbai, India. Interventions to reduce needle stick injuries at a tertiary care centre. Status of occupational hazards and their prevention among dental professionals in Chandigarh, India: A comprehensive questionnaire survey. Risk management of HBsAg or anti-HCV positive healthcare workers in hospital. Personalized education improves hepatitis B vaccination rate among physicians in Saudi Arabia. Epidemiology of needlestick and sharps injuries in a tertiary care center in Saudi Arabia. Factors relating to acceptance of hepatitis b virus	No abstract and full text available Not possible to extract data on HBV serological markers prevalence No data on HBV serological markers prevalence

		1	1
552	Migneco, 1987	HBV infection risk in hospital workers.	No abstract and full text available
553	Minuk, 2005	Viral hepatitis and the surgeon.	Review
554	Mir, 2011	Accidental blood exposures among medical residents in Paris, France.	No Laboratory-Confirmed data
555	Mir, 2012	Vaccination coverage among medical residents in Paris, France.	No Laboratory-Confirmed data
556	Mobasherizadeh, 2005	Intervention study of needle stick injury in Iran.	No data on HBV serological markers prevalence
557	Mohammadi, 2011	Percutaneous exposure incidents in nurses: Knowledge, practice and exposure to hepatitis b infection.	No Laboratory-Confirmed data
558	Mohammadpouri, 2017	Report of occupational exposure and coverage of hepatitis B vaccine in health care workers.	No data on HBV serological markers prevalence
559	Mohite, 1999	Prevalence of HBsAg positivity in staff and patients at MGM Medical College and Hospital, Navi-Mumbai.	No abstract and full text available
560	Moloughney, 2001	Transmission and postexposure management of bloodborne virus infections in the health care setting: Where are we now?	Review
561	Monteil, 1990	Epidemiologic study of hepatitis B virus and human immunodeficiency virus transmission among dental surgeons in the Alpes Maritimes region.	No abstract and full text available
562	Moore, 2003	Provision of hepatitis B vaccination for primary care dental staff in Scotland.	No Laboratory-Confirmed data
563	Mori, 1984	Status of viral hepatitis in the world community: its incidence among dentists and other dental personnel.	Review
564	Moro, 2007	Epidemiology of needlesticks and other sharps injuries and injection safety practices in the Dominican Republic.	No Laboratory-Confirmed data
565	Mosley, 1980	Hepatitis B virus exposure of hospital staff.	No data on HBV serological markers prevalence
566	Mosley, 1980	Immunization coverage of health care workers against hepatitis B.	Sample with already known result
567	Mossoro-Kpinde, 2012	High incidence of occupationnal blood exposures (OBE) in the health care workers sector of low income countries, using the example of Bangui, Central African Republic (CAR).	No Laboratory-Confirmed data
568	Mungandi, 2017	Hepatitis B vaccination coverage and the determinants of vaccination among health care workers in selected health facilities in Lusaka district, Zambia: An exploratory study.	No Laboratory-Confirmed data
569	Murphy, 2000	Hepatitis B, vaccination and healthcare workers.	Review
570	Murray, 2002	Poor health care worker vaccination coverage and knowledge of vaccination recommendations in a tertiary Australia hospital.	No Laboratory-Confirmed data
571	Murray, 2009	Occupational exposure to blood and other bodily fluids at a military hospital in Iraq.	No data on HBV serological markers prevalence
572	Musa, 2014	Needle Stick Injuries, Sharp Injuries and other Occupational Exposures to Blood and Body Fluids among Health Care Workers in a general hospital in Sarajevo, Bosnia and Herzegovina.	No Laboratory-Confirmed data
573	Najjar, 2017	Barriers to optimal screening and vaccination of hepatitis B contacts: a survey of general practitioners in NSW, Australia.	No data on HBV serological markers prevalence
574	Naranzul, 2018	Prevalence of hepatitis B and hepatitis C virus infections among nurses in a tertiary hospital in Mongolia.	No abstract and full text available
575	Nasir, 2000	Hepatitis B vaccination among health care workers and students of a medical college.	No Laboratory-Confirmed data
576	Nee, 1995	Hepatitis B vaccination: uptake by medical staff in accident and emergency departments.	No data on HBV serological markers prevalence among HCWs

577	Nejad, 2011	Hepatitis B virus antibody levels in high-risk health care workers.	Comment on an article
578	Nelsing, 1993	Occupational blood exposure among health care workers: I. Frequency and reporting.	No data on HBV serological markers prevalence
579	Nemutandani, 2007	Occupational exposures among dental assistants in public health care facilities, Limpopo Province.	No data on HBV serological markers prevalence
580	Newsom, 2002	Needle-stick injuries in an Ugandan teaching hospital.	No data on HBV serological markers prevalence
581	Ngo, 2013	Literature review of hepatitis B virus outbreaks in assisted living facilities.	No abstract and full text available
582	Nguyen, 2001	Update. Surveillance of healthcare workers exposed to blood/body fluids and bloodborne pathogens: 1 April, 2000 to 31 March, 2001.	No abstract and full text available
583	Nicholas, 1977	Viral hepatitis among practising dentists.	No abstract and full text available
584	Nicholas, 1986	Viral hepatitis among Auckland dentists.	No abstract and full text available
585	Nienhaus, 2012	Infectious diseases in healthcare workers - An analysis of the standardised data set of a German compensation board.	Not possible to extract data on HBV serological markers prevalence
586	Nienhaus, 2018	Infections in Healthcare Workers in Germany-22-Year Time Trends.	Comment on an article
587	Nisar, 2019	Prevalence and perception of needle stick injury among health care professionals at a tertiary care hospital, Karachi, Pakistan.	No abstract and full text available
588	No author listed, 1974	Post-transfusion hepatitis in a London hospital: results of a two-year prospective study. A report to the M.R.C. Blood Transfusion Research Committee by the Medical Research Council Working Party on Post-Transfusion Hepatitis.	No data on HBV serological markers prevalence
589	No author listed, 1976	Hepatitis in clinical laboratories.	Not possible to extract data on HBV serological markers prevalence
590	No author listed, 1976	Relation of e antigen to infectivity of hBsAg-positive inoculations among medical personnel.	No data on HBV serological markers prevalence
591	No author listed, 1977	Research findings of potential value to the practitioner.	No data on HBV serological markers prevalence
592	No author listed, 1979	Hepatitis B as an occupational risk for nephrology nurses and technicians.	No data on HBV serological markers prevalence
593	No author listed, 1980	Acute hepatitis B associated with gynaecological surgery. Report of a collaborative study by the Communicable Disease Surveillance Centre and the Epidemiological Research Laboratory of the Public Health Laboratory Service together with a District Control-of-Infection Service.	No data on HBV serological markers prevalence
594	No author listed, 1980	Hepatitis B virus infections among surgeons.	No data on HBV serological markers prevalence
595	No author listed, 1983	The hepatitis B carrier in hospital.	No data on HBV serological markers prevalence
596	No author listed, 1984	Hepatitis B vaccine. Health and Public Policy Committee, American College of Physicians.	No abstract and full text available
597	No author listed, 1985	Acquired immune deficiency syndrome: recommendations of a working party of the Hospital Infection Society.	No data on HBV serological markers prevalence
598	No author listed, 1986	Dentists found at small risk to AIDS: LA task force. Virus may be killed easily; autoclaving, sterilization recommended.	No data on HBV serological markers prevalence

			1
599	No author listed,	Guidelines for the protection of health care workers in	No data on HBV serological
	1986	caring for persons who have some form of HTLV-	markers prevalence
600	37 1 1 1	III/LAV infection.	37 1
600	No author listed,	Leads from the MMWR. Outbreak of hepatitis B	No abstract and full text
<i>c</i> 01	1987	associated with an oral surgeonNew Hampshire.	available
601	No author listed, 1987	An outbreak of hepatitis B in a nursing home.	Case report
602	No author listed,	Healthcare in crisis. Reducing the risk of HIV and other	No abstract and full text
	1990	bloodborne diseases in the healthcare setting.	available
		Presentations from a roundtable discussion at the 16th	
		annual conference and international meeting of the	
		Association for Practitioners in Infection Control (APIC).	
		Reno, Nevada, May 21-26, 1989. Proceedings.	
603	No author listed,	Lichen planus and liver diseases: a multicentre case-	No data on HBV serological
	1990	control study. Gruppo Italiano Studi Epidemiologici in	markers prevalence
50.4		Dermatologia (GISED).	27 1 10 11
604	No author listed,	One of man's most deadly viruses is most alarming to	No abstract and full text
<i>c</i> 0 <i>5</i>	1990	healthcare workers.	available
605	No author listed, 1991	HIV testing: patients, health care workers and physicians.	No abstract and full text available
606	No author listed,	ICN: European conference alerts nurses to hepatitis B	No data on HBV serological
	1991	danger in the workplace.	markers prevalence
607	No author listed,	Preliminary analysis: HIV serosurvey of orthopedic	No data on HBV serological
	1991	surgeons, 1991.	markers prevalence
608	No author listed,	Recommendations for preventing transmission of human	No data on HBV serological
	1991	immunodeficiency virus and hepatitis B virus to patients	markers prevalence
600	NT (1 1' (1	during exposure-prone invasive procedures.	N. 1. HDV 1 1
609	No author listed, 1992	Anal intercourse risk of HBV in women.	No data on HBV serological
610	No author listed,	CLMA position on HIV/HBV testing of health-care	markers prevalence No data on HBV serological
010	1992	workers. Clinical Laboratory Management Association.	markers prevalence
611	No author listed,	HBV risk from fingersticks.	No abstract and full text
011	1992	1.2 + 1.50 1.50 1.50 1.50 1.50 1.50 1.50 1.50	available
612	No author listed,	Hepatitis B and health care workers.	No Laboratory-Confirmed
	1992	•	data
613	No author listed,	HIV and hep. B and C code of practice.	No data on HBV serological
	1992		markers prevalence
614	No author listed,	'Look-back' notifications for HIV/HBV-positive	No data on HBV serological
	1992	healthcare workers. AIDS Committee of the Society for	markers prevalence
		Hospital Epidemiology of America.	
615	No author listed,	APIC position paper: prevention of device-mediated	No data on HBV serological
	1993	blood-borne infections to health care workers. 1992 Governmental Affairs Committee of the Association for	markers prevalence
		Practitioners in Infection Control, Inc.	
616	No author listed,	Suture cuts may be cause of surgeon-to-patient	Not possible to extract data
010	1994	transmission of hepatitis B infection.	on HBV serological markers
	1,,,,	transmission of neparities 2 infection.	prevalence
617	No author listed,	Transmission of hepatitis B from surgeon to patients	No data on HBV serological
-	1994	continues.	markers prevalence
618	No author listed,	From the Centers for Disease Control and Prevention.	No data on HBV serological
	1997	Nosocomial hepatitis B virus infection associated with	markers prevalence
		reusable fingerstick blood sampling devicesOhio and	
		New York City, 1996.	
619	No author listed,	Management of healthcare workers infected with	No data on HBV serological
	1997	hepatitis B virus, hepatitis C virus, human	markers prevalence
		immunodeficiency virus, or other bloodborne pathogens.	
		AIDS/TB Committee of the Society for Healthcare	
		Epidemiology of America.	

620	No author listed,	Recommendations of the Academy of Surgery: Viral	No data on HBV serological
	1997	transmission from the surgeon to the patient.	markers prevalence
621	No author listed, 1998	SHEA proposes separate HIV, HBV strategies. Society for Health Care Epidemiology of America.	No data on HBV serological markers prevalence
622	No author listed,	Surveillance of health care workers with occupational	No data on HBV serological
022	1998	exposure to bloodborne viruses.	markers prevalence
623	No author listed,	Chance finding of hepatitis B e antigen carriage in	No data on HBV serological
023	1999	pregnant woman highlights need for antenatal screening,	markers prevalence
	1777	and vaccination of health care workers.	markers prevalence
624	No author listed,	Surveillance of health care workers exposed to	No data on HBV serological
024	2000	bloodborne viruses at work: July 1997 to June 2000.	markers prevalence
625	No author listed,	From the Centers for Disease Control and Prevention.	No data on HBV serological
023	2001	Injection practices among nursesValcea, Romania,	markers prevalence
		1998.	
626	No author listed,	Injection practices among nursesVâlcea, Romania,	No data on HBV serological
	2001	1998.	markers prevalence
627	No author listed,	Injection safety.	No data on HBV serological
	2003		markers prevalence
628	No author listed,	Hepatitis B and hepatitis C virus infections in	No data on HBV serological
	2006	obstetrician-gynecologists.	markers prevalence
629	No author listed,	Agreement reached on virus testing and protections for	No abstract and full text
	2008	doctors.	available
630	No author listed,	Committee opinion no. 489: Hepatitis B, hepatitis C, and	No abstract and full text
	2011	human immunodeficiency virus infections in	available
		obstetrician-gynecologists.	
631	Noble, 1991	Hepatitis B and HIV infections in dental professionals:	Review
		effectiveness of infection control procedures.	
632	Norrgren, 1992	Prevalence of antibodies against hepatitis B and C	No data on HBV serological
		viruses among different groups of medical staff.	markers prevalence among
			HCWs
633	Noubiap, 2013	Occupational exposure to blood, hepatitis B vaccine	No data on HBV serological
	_	knowledge and uptake among medical students in	markers prevalence
		Cameroon.	
634	Nouetchognou,	Accidental exposures to blood and body fluids among	No data on HBV serological
	2016	health care workers in a Referral Hospital of Cameroon.	markers prevalence
635	Nunn, 2018	Occupational exposure during emergency department	No data on HBV serological
		thoracotomy: A prospective, multi-institution study.	markers prevalence
636	Nworie, 2018	Hepatitis B virus (HBV) infection amongst staff of a	No data on HBV serological
		Nigerian university.	markers prevalence among
			HCWs
637	O'Connell, 2006	Occupational sharps injuries in a Dublin teaching	No abstract and full text
		hospital.	available
638	Odimayo, 2018	Prevalence and status of hepatitis B viral Infection	No data on HBV serological
		among healthcare workers in a tertiary health institution	markers prevalence
		in south western Nigeria.	
639	Öge, 1998	Occupational risk of hepatitis B and C infections in	No data on HBV serological
		urologists.	markers prevalence among
			HCWs
640	Ogoina, 2014	Prevalence of hepatitis B vaccination among health care	No data on HBV serological
		workers in Nigeria in 2011-12.	markers prevalence
641	Ogundele, 2018	Reducing the risk of nosocomial Hepatitis B virus	No data on HBV serological
		infections among healthcare workers in Nigeria: A need	markers prevalence
		for policy directive on pre-employment screening and	<u> </u>
		vaccination.	
642	Ogunnowo, 2012	Exposure to blood among mortuary workers in teaching	No data on HBV serological
_	<i>J</i> - ··· - , – · · – ·	hospitals in south-west Nigeria.	markers prevalence
643	Oh, 2005	Epidemiological characteristics of occupational blood	Not possible to extract data
	, - 	exposures of healthcare workers in a university hospital	on HBV serological markers
		in South Korea for 10 years.	prevalence
			1 1

644	Oh, 2016	Occupational exposure to infection risk and use of personal protective equipment by emergency medical	No data on HBV serological markers prevalence
		personnel in the Republic of Korea.	
645	Oh, 2019	5 year survey on sharp injuries among healthcare workers in an acute care hospital in Singapore.	No abstract and full text available
646	Okeke, 2008	Hepatitis B vaccination status and needle stick injuries	No data on HBV serological
	,	among medical students in a Nigerian university.	markers prevalence
647	Okoh, 2017	Assessment of knowledge, attitude and practice of post-	No data on HBV serological
	,	exposure prophylaxis against blood-borne viral infection	markers prevalence
		among dental surgeons in a teaching hospital.	
648	Okulicz, 2013	Occupational exposures and the prevalence of blood-	No data on HBV serological
	, _ , _ , _ ,	borne pathogens in a deployed setting: Data from a US	markers prevalence
		military trauma center in Afghanistan.	
649	Ola, 2009	Anti-HBC and HBsAg screening among nigerian health	No abstract and full text
0.5	01 m , 2007	care workers.	available
650	Oladeinde, 2014	Uptake of HIV, HBV and HCV testing services among	No data on HBV serological
050	Oludellide, 2011	medical laboratory scientists in Nigeria.	markers prevalence
651	Olaitan, 2012	Sharp injuries among hospital waste handlers.	No data on HBV serological
031	Giantan, 2012	Sharp injuries uniong hospital waste manufels.	markers prevalence
652	Olatosi, 2016	HEPATITIS B VACCINATION STATUS AND	No data on HBV serological
002	0141051, 2010	NEEDLE STICK INJURY EXPOSURE AMONG	markers prevalence
		OPERATING ROOM STAFF IN LAGOS, NIGERIA.	muziors province
653	Olubuyide, 1996	Doctors at risk of hepatitis B and HIV infection from	No data on HBV serological
		patients in Nigeria.	markers prevalence
654	Olubuyide, 1997	Prevalence and epidemiological characteristics of	Duplicate study
	,	hepatitis B and C infections among doctors and dentists	
		in Nigeria.	
655	Omar, 2015	Occupational injuries prone to infectious risks amongst	No data on HBV serological
		healthcare personnel in Kuwait: A retrospective study.	markers prevalence
656	Omotowo, 2018	Uptake of hepatitis B vaccination and its determinants	No Laboratory-Confirmed
		among health care workers in a tertiary health facility in	data
		Enugu, South-East, Nigeria.	
657	Osazuwa-Peters,	Occupational health issues of oral health care workers in	No Laboratory-Confirmed
	2012	Edo State, Nigeria.	data
658	Osterholm, 1979	Viral hepatitis in hospital personnel in Minnesota. Report	No abstract and full text
		of a statewide survey.	available
659	Osterholm, 1985	Clinical viral hepatitis B among Minnesota hospital	No abstract and full text
		personnel. Results of a ten-year statewide survey.	available
660	Othman, 2018	Hepatitis B seroepidemiology and booster vaccination in	No data on HBV serological
		pre-clinical medical students in a Malaysian university.	markers prevalence among
	0.41	**	HCWs
661	Ouédraogo, 2013	Hepatitis B vaccination status and associated factors	Not possible to extract data
		among health care workers in Burkina Faso.	on HBV serological markers
((2)	D-: 2012	Conducto following a constitution of a side state in solution	prevalence
662	Paiva, 2013	Conducts following occupational accidents involving	No data on HBV serological
		exposure to biological material among emergency	markers prevalence
663	Palmer, 2000	medical services personnel. The management of occupational exposures to blood and	No data on HBV serological
003	Faiillei, 2000	saliva in dental practice.	markers prevalence
664	Panlilio, 1995	Serosurvey of human immunodeficiency virus, hepatitis	No abstract and full text
004	1 ammo, 1993	B virus, and hepatitis C virus infection among hospital-	available
		based surgeons.	avanable
665	Pantelick, 1981	Hepatitis B infection in hospital personnel during an	No data on HBV serological
003	1 uniones, 1701	eight-year period; policies for screening and pregnancy in	markers prevalence
		high risk areas.	markers prevarence
666	Papagiannis, 2016	Hepatitis B virus vaccination coverage in medical,	No data on HBV serological
	- upugumino, 2010	nursing, and paramedical students: A cross-sectional,	markers prevalence
		multi-centered study in Greece.	r
L			1

667	Park , 2008	Needlestick and sharps injuries in a tertiary hospital in	No data on HBV serological
	D 11 1075	the Republic of Korea.	markers prevalence
668	Pastakia, 1975	Hepatitis-B antigen in professional blood donors at AIIMS hospital.	No abstract and full text available
669	Patel, 2009	Infection control practices in assisted living facilities: A	No data on HBV serological
	,	response to hepatitis B virus infection outbreaks.	markers prevalence
670	Pathoumthong,	Vaccination status, knowledge and awareness towards	No data on HBV serological
070	2014	hepatitis B among students of health professions in	markers prevalence
	2014	Vientiane, Lao PDR.	markers prevarence
671	Patil , 2013	Awareness and risk perception of hepatitis B infection	No data on HBV serological
0/1	1 atii , 2013	among auxiliary healthcare workers.	markers prevalence
672	Paris 2012		No data on HBV serological
672	Paya, 2013	Vaccination status of family physicians in the Loire	
(72	D : 1002	district, France.	markers prevalence
673	Perrin, 1982	Hepatitis in dentistry.	No abstract and full text available
674	Pervez, 2005	Prevalence of hepatitis B surface antigenaemia amongst	No abstract and full text
		nursing staff of Tertiray Care Hospital.	available
675	Petrosillo, 1995	Hepatitis B virus, hepatitis C virus and human	No data on HBV serological
075	Tetrosino, 1993	immunodeficiency virus infection in health care workers:	markers prevalence
		a multiple regression analysis of risk factors.	markers prevalence
676	Pottit 1007		No data on HDV saralogical
676	Pettit, 1997	Epidemiology of sharp object injuries in a children's	No data on HBV serological
677	Daniel 2010	hospital.	markers prevalence
677	Pezzoli, 2010	Can we know the immunization status of healthcare	No data on HBV serological
		workers? Results of a feasibility study in hospital trusts,	markers prevalence
		England, 2008.	
678	Phillips, 2007	Bloodborne pathogen exposure risk among surgeons in	No data on HBV serological
		sub-Saharan Africa.	markers prevalence
679	Phillips, 2012	Risk of bloodborne pathogen exposure among Zambian	No data on HBV serological
		healthcare workers.	markers prevalence
680	Phukan, 2014	Compliance to occupational safety measures among the	No data on HBV serological
		paramedical workers in a tertiary hospital in Karnataka,	markers prevalence
		South India.	•
681	Pinquier, 2008	Vaccine prevention in perinatal health care: parents,	No data on HBV serological
	,	children and professionals.	markers prevalence
682	Playford, 2002	Intradermal recombinant hepatitis B vaccine for	No data on HBV serological
002	114,1014, 2002	healthcare workers who fail to respond to intramuscular	markers prevalence
		vaccine.	markers prevarence
683	Polesky, 1982	Surveillance and prevention of hepatitis in health care	No data on HBV serological
003	1 01Csky, 1762	personnel.	markers prevalence
684	Polz, 1989	Viral hepatitis among the hospital staff.	No abstract and full text
004	F 01Z, 1909	vital hepatitis among the hospital staff.	available
CO5	D1- 1004	Towns its to be with Downs to the second of	
685	Poole, 1994	Immunity to hepatitis B among health care workers	No data on HBV serological
	7 1001	performing exposure prone procedures.	markers prevalence
686	Porter, 1994	Viral hepatitis. Current concepts for dental practice.	Review
687	Porter, 1996	Compliance with infection control procedures in	No data on HBV serological
		dentistry [2].	markers prevalence
688	Poujol, 2008	Hepatitis B virus transmission from a nurse to a patient,	No data on HBV serological
	3	France, 2005.	markers prevalence
689	Powell, 1975	The incidence of Australia antigen in hospital staff	No data on HBV serological
/		members.	markers prevalence
690	Powers, 1994	Epidemiology and prevention of blood and body fluid	No data on HBV serological
070	1 0 W C13, 1774	exposures among emergency department staff.	markers prevalence
601	Drobbolzon 2014		
691	Prabhakar, 2014	Prevalence of needle-stick injuries in interventional	No data on HBV serological
600	D 1 1000	radiology.	markers prevalence
692	Prasad, 1988	Hepatitis B viral infections amongst hospital personnel:	No abstract and full text
		Chandigarh.	available
693	Prasetya, 1986	Intradermal vaccination against hepatitis B in Immanuel	No data on HBV serological
093	114300) 4, 1900	Hospital personnela preliminary report.	markers prevalence

694	Prasuna, 2015	OCCURRENCE AND KNOWLEDGE ABOUT NEEDLE STICK INJURY IN NURSING STUDENTS.	No data on HBV serological markers prevalence
695	Prati, 2000	Screening of health care workers for hepatitis B virus and	No abstract and full text
093	Prati, 2000	hepatitis C virus: criteria for fitness for work.	available
696	Prendergast jr,	Transmission of hepatitis B by a surgeon [3].	No data on HBV serological
	1991		markers prevalence
697	Prendergast, 1995	Hepatitis B immunisation among invasive cardiologists:	No data on HBV serological
		Poor compliance with united kingdom guidelines.	markers prevalence
698	Psarrou, 2018	Hepatitis B vaccination coverage of healthcare	No data on HBV serological
	,	professionals in Greece.	markers prevalence
699	Puro, 2005	European recommendations for the management of	No data on HBV serological
	,	healthcare workers occupationally exposed to hepatitis B	markers prevalence
		virus and hepatitis C virus.	Post diseases
700	Qayyum, 2012	Prevalence of blood borne diseases (hepatitis B & C) and	No data on HBV serological
, 00	Quy y 0, 2012	strategy to protect health care workers.	markers prevalence among
		stategy to protect neutrinears workers.	HCWs
701	Qudeimat, 2006	Infection control knowledge and practices among dentists	No data on HBV serological
701	Quaemai, 2000	and dental nurses at a Jordanian University Teaching	markers prevalence
		Center.	markers prevalence
702	Quraishi, 1985	Risk of transmission of hepatitis B to hospital personnel	Case report
702	Quraisiii, 1703	exposed to a chronic HBsAg carrier.	cuse report
703	Rabaud, 2000	Occupational exposure to blood: Search for a relation	No data on HBV serological
103	Rabaud, 2000	between personality and behavior.	markers prevalence
704	Rachiotis, 2005	Vaccination against hepatitis B virus in workers of a	No abstract and full text
704	Racinotis, 2003	general hospital in Athens.	available
705	Radcliffe, 2013	Hepatitis B virus transmissions associated with a portable	No data on HBV serological
703	Raucille, 2013		markers prevalence
706	Dodron 1004	dental clinic, West Virginia, 2009. Hepatitis B markers in health care workers. The	No abstract and full text
706	Radvan, 1984	•	available
707	Danida 1006	Newcastle study.	
707	Raeside, 1996	Hepatitis A & B: the nurse's role (continuing education credit).	No abstract and full text available
708	Ramos-Gomez,	Accidental exposures to blood and body fluids among	No data on HBV serological
700	1997	health care workers in dental teaching clinics: a	markers prevalence
	1997	-	markers prevalence
709	Dommich 2017	prospective study. Work-related infections in dentistry: risk perception and	No data on HDV carelagical
709	Ramrich, 2017	• • •	No data on HBV serological
710	Damass 1006	preventive measures.	markers prevalence
710	Ramsey, 1996	Nurses' body fluid exposure reporting, HIV testing, and	No data on HBV serological
		hepatitis B vaccination rates: before and after	markers prevalence
711	Danisanda 2010	implementing universal precautions regulations.	No obstupat and full tant
711	Rapisarda, 2019	Incidence of sharp and needle-stick injuries and	No abstract and full text
		mucocutaneous blood exposure among healthcare workers.	available
712	Domeonini 2007		No data an HDV sauchariasi
712	Rapparini, 2007	Occupational exposures to bloodborne pathogens among	No data on HBV serological
		healthcare workers in Rio de Janeiro, Brazil.	markers prevalence among
712	Doth; 2010	Assessment of knowledge attitude and mostices to-	HCWs
713	Rathi, 2018	Assessment of knowledge, attitude, and practices toward	No data on HBV serological
		prevention of hepatitis B infection among medical	markers prevalence
		students in a high-risk setting of a newly established	
714	D. 41.1 1 2017	medical institution.	No data at MDM 1 1 1
714	Rathinavelu, 2015	Assessment of knowledge on occupational exposure to	No data on HBV serological
		hepatitis B infection and vaccine among undergraduate	markers prevalence
 -	D 2015	students in a private dental college, Chennai.	N. 111
715	Raven, 2016	Fluctuation of Viremia in Hepatitis B Virus-Infected	Not possible to extract data
		Healthcare Workers Performing Exposure-Prone	on HBV serological markers
		Procedures in the Netherlands.	prevalence
716	Ream, 2016	Biological risk among hospital housekeepers.	No data on HBV serological
	- 44:		markers prevalence
717	Reddy, 2014	Prevalence of hepatitis B vaccination among oral health	No data on HBV serological
		care personnel in Mysore city, India.	markers prevalence

718	Redeker, 1975	Hepatitis B. Risk of infection from antigen-positive medical personnel and patients.	Comment on an article
719	Reingold, 1982	Transmission of hepatitis B by an oral surgeon.	No data on HBV serological markers prevalence
720	Reis, 2004	Accidents with biological material among undergraduate nursing students in a public Brazilian university.	No Laboratory-Confirmed data
721	Resende, 2010	Concerns regarding hepatitis B vaccination and post-vaccination test among Brazilian dentists.	No Laboratory-Confirmed data
722	Reynolds, 2008	Possible risks of transmission of bloodborne infection via acupuncture needles in Guizhou province, southwest China.	No data on HBV serological markers prevalence
723	Rhodes, 2008	Immunisation status of dental practice staff in Kent.	No Laboratory-Confirmed data
724	Ribero, 1986	Hepatitis B virus infection in dentists and dental students.	No abstract and full text available
725	Ribero, 1986	A hepatitis B vaccination programme in a group of dental practitioners.	No abstract and full text available
726	Rice, 2015	Sharp truth: health care workers remain at risk of bloodborne infection.	Not possible to extract data on HBV serological markers prevalence
727	Rimkuviene, 2011	Percutaneous injuries and hepatitis B vaccination among Lithuanian dentists.	No data on HBV serological markers prevalence
728	Rioche, 1987	Prevalence of markers of the HBs system of hepatitis B among hospital personnel in Morocco: evaluation of the risk of hepatitis B infection.	No abstract and full text available
729	Rishi, 2017	Needle stick injuries in a tertiary eye-care hospital: Incidence, management, outcomes, and recommendations.	No data on HBV serological markers prevalence
730	Rivoalen, 1992	Behaviour of the hospital staff concerning prevention. The case for hepatitis B.	No abstract and full text available
731	Rogowska- Szadkowska, 2010	Risk of needle stick injuries in health care workers: bad habits (recapping needles) last long.	No data on HBV serological markers prevalence
732	Ropac, 2001	The prevalence of hepatitis B virus infection among medical workers prior to vaccination.	No abstract and full text available
733	Rosen, 1999	Ten-year follow-up study of hepatitis B virus infection and vaccination status in hospital employees.	No data on HBV serological markers prevalence
734	Rosenberg, 1973	Viral hepatitis: an occupational hazard to surgeons.	No data on HBV serological markers prevalence
735	Rossouw, 2014	Blood-borne infections in healthcare workers in South Africa.	Review
736	Roupa, 2019	Vaccination Coverage and Awareness of Hepatitis B Virus Among Healthcare Students at a University in Cyprus.	No data on HBV serological markers prevalence among HCWs
737	Roush, 1991	Availability and use of hepatitis B vaccine in laboratory and nursing schools in the United States.	No data on HBV serological markers prevalence
738	Ruben, 1983	Epidemiology of accidental needle-puncture wounds in hospital workers.	No data on HBV serological markers prevalence
739	Russo, 1992	A second look at the cost of mandatory human immunodeficiency virus and hepatitis B virus testing for healthcare workers performing invasive procedures.	No data on HBV serological markers prevalence
740	Rybacki, 2013	Work safety among Polish health care workers in respect of exposure to bloodborne pathogens.	No data on HBV serological markers prevalence
741	Rybacki, 2013	Survey of hepatitis B exposure and sharps injuries in dental health-care professionals.	No data on HBV serological markers prevalence
742	Rymer, 2016	Risk of occupational exposure to the HBV infection in non-clinical healthcare personnel.	Not possible to extract data on HBV serological markers prevalence
743	Sabău, 1977	Hepatitis B antibodies in hospital personnel.	No abstract and full text available

744	Sabermoghaddam, 2015	Incidence of occupational exposure to blood and body fluids and measures taken by health care workers before and after exposure in regional hospitals of a developing country: a multicenter study.	No data on HBV serological markers prevalence
745	Said, 2014	Hepatitis B vaccination and screening awareness in	No data on HBV serological
7 13	5414, 2011	primary care practitioners.	markers prevalence
746	Samaranayake,	'Dramatic reduction in hepatitis B incidence among	No abstract and full text
740	1989	dentists in England and Wales'.	available
747	Samuel, 2017	Occupational risk of hepatitis B among dental	Not possible to extract data
747	Samuel, 2017		*
		professionals by estimation of the anti-HBs.	on HBV serological markers
	~		prevalence
748	Saraux, 1985	Viral hepatitis B in health personnel.	No abstract and full text
			available
749	Saridi, 2011	Occupational exposure to blood in workers in a Greek	No data on HBV serological
		hospital.	markers prevalence
750	Scatigna, 2017	Attitudinal variables and a possible mediating	No data on HBV serological
	<i>β</i> ,	mechanism for vaccination practice in health care	markers prevalence
		workers of a local hospital in L'Aquila (Italy).	mariors provinces
751	Schaffer, 2001	Adolescent immunization practices: a national survey of	No data on HBV serological
731	Schaffer, 2001	1	
750	Cohoolder 1000	US physicians.	markers prevalence
752	Scheckler, 1988	A creative method for determining the immunization	No data on HBV serological
		status of a community hospital medical staff.	markers prevalence
753	Schenkel, 2008	Viral hepatitis in Germany: poor vaccination coverage	No data on HBV serological
		and little knowledge about transmission in target groups.	markers prevalence
754	Scheutz, 1985	Viral hepatitis among Danish oral surgeons.	Not possible to extract data
			on HBV serological markers
			prevalence
755	Scheutz, 1986	Drug addiction and viral hepatitis in the dental patient.	Review
755	Benediz, 1900	Studies on various aspects of providing dental care for	Teview
		drug addicts and their consequences for patients and	
756	0.1 / 1000	dental personnel.	D 1: 1
756	Scheutz, 1988	Hepatitis B virus infection in Danish dentists. A case-	Duplicate study
		control and follow-up study.	
757	Schiff, 1986	Veterans Administration cooperative study on hepatitis	Not possible to extract data
		and dentistry.	on HBV serological markers
			prevalence
758	Schmid, 2007	Needlestick injuries and other occupational exposures to	No data on HBV serological
		body fluids amongst employees and medical students of a	markers prevalence
		German university: incidence and follow-up.	1
759	Schneider, 1979	Hepatitis B: An occupational hazard of health care	No abstract and full text
, ,	Zeimerwer, 1979	facilities.	available
760	Schoub, 1991	Exposure to hepatitis B virus among South African	No abstract and full text
700	Schoub, 1991	health care workersimplications for pre-immunisation	available
			avanable
7.1	011 1000	screening.	NI- 1-4 IIDV
761	Scully, 1990	Increasing acceptance of hepatitis B vaccine by dental	No data on HBV serological
		personnel but reluctance to accept hepatitis B carrier	markers prevalence among
		patients.	HCWs
762	Scully, 2007	Infection control: a survey of UK special care dentists	No data on HBV serological
		and dental care professionals.	markers prevalence
_		Hepatitis B antigen and antibody in the United States	Not possible to extract data
763	Segal, 1979		
763	Segal, 1979	Army: Two-year follow-up of health care personnel.	on HBV serological markers
763	Segal, 1979	Army: Two-year follow-up of health care personnel.	on HBV serological markers
	- Company		prevalence
763 764	Segal, 1979 Seiz, 2015	Studies of nosocomial outbreaks of hepatitis B in nursing	prevalence No data on HBV serological
	- Company	Studies of nosocomial outbreaks of hepatitis B in nursing homes in Germany suggest a major role of hepatitis B e	prevalence
764	Seiz, 2015	Studies of nosocomial outbreaks of hepatitis B in nursing homes in Germany suggest a major role of hepatitis B e antigen expression in disease severity and progression.	prevalence No data on HBV serological markers prevalence
	- Company	Studies of nosocomial outbreaks of hepatitis B in nursing homes in Germany suggest a major role of hepatitis B e	prevalence No data on HBV serological
764	Seiz, 2015	Studies of nosocomial outbreaks of hepatitis B in nursing homes in Germany suggest a major role of hepatitis B e antigen expression in disease severity and progression.	prevalence No data on HBV serological markers prevalence
764 765	Seiz, 2015 Semaille, 2004	Studies of nosocomial outbreaks of hepatitis B in nursing homes in Germany suggest a major role of hepatitis B e antigen expression in disease severity and progression. Vaccination of general practitioners.	prevalence No data on HBV serological markers prevalence Review

767	Sepkowitz, 1996	Occupationally acquired infections in health care workers. Part II.	Review
768	Septimus, 1984	Seroprevalence of hepatitis B markers in health-care	No abstract and full text
700	Septimus, 1901	workers at a teaching medical center and two community	available
		hospitals.	a variable
769	Serdar, 2013	Occupational exposures in healthcare workers in	No data on HBV serological
10)	Serdar, 2015	University Hospital Dubrava10 year follow-up study.	markers prevalence
770	Seycková, 1984	Prevalence of viral hepatitis among the hospital staff in	No abstract and full text
770	Seyekova, 1704	CSR between 1980 and 1982.	available
771	Shah, 2005	Workers' compensation claims for needlestick injuries	No data on HBV serological
,,,	Shan, 2003	among healthcare workers in Washington State, 1996-	markers prevalence
		2000.	markers prevarence
772	Shah, 2006	The epidemiology of needle stick injuries among health	No Laboratory-Confirmed
	2000	care workers in a newly developed country.	data
773	Shah, 2006	Percutaneous injuries among dental professionals in	No data on HBV serological
,,,	2000	Washington State.	markers prevalence
774	Shah, 2012	Screening for hepatitis B and hepatitis C in hospital staff	No abstract and full text
' ' '	211411, 2012	of tertiary care hospital in Mumbai.	available
775	Shanks, 1995	Occupation risk of needlestick injuries among health care	No data on HBV serological
,,,	Similis, 1990	personnel in Saudi Arabia.	markers prevalence
776	Shapiro, 1996	Use of the hepatitis-B vaccine and infection with	No data on HBV serological
	,	hepatitis B and C among orthopaedic surgeons. The	markers prevalence
		American Academy of Orthopaedic Surgeons Serosurvey	
		Study Committee.	
777	Shapiro, 1996	Use of the hepatitis-B vaccine and infection with	Duplicate study
		hepatitis B and C among orthopaedic surgeons.	
778	Sharavanan, 2011	Prevalence of hepatitis B surface antigen among health	No abstract and full text
	,	care workers.	available
779	Shariati, 2007	Accidental exposure to blood in medical interns of	No data on HBV serological
	·	Tehran University of Medical Sciences.	markers prevalence
780	Sharma, 1976	Prevalence of Australia antigen amongst pediatric	No abstract and full text
		medical hospital admissions.	available
781	Sharma, 2012	Study on prevalence of needle stick injury among health	No data on HBV serological
		care workers in a tertiary care hospital in New Delhi: a	markers prevalence
		two-year review.	
782	Shaw, 1986	Lethal outbreak of hepatitis B in a dental practice.	Case report
783	Sheikh Ali, 2010	Persistence of protective antibodies against Hepatitis B	No data on HBV serological
	ŕ	virus among vaccinated health workers, Al-Hussein	markers prevalence
		Hospital, Salt, Jordan, 2008.	•
784	Sherman, 2017	Assessment of professional activities and needed	No data on HBV serological
		resources of hiv-specialist pharmacists.	markers prevalence
785	Shiao, 1999	Prevalence of nonreporting behavior of sharps injuries in	No data on HBV serological
		Taiwanese health care workers.	markers prevalence
786	Shiao, 2002	Estimation of the risk of bloodborne pathogens to health	No data on HBV serological
		care workers after a needlestick injury in Taiwan.	markers prevalence
787	Shiao, 2002	Student nurses in Taiwan at high risk for needlestick	No data on HBV serological
		injuries.	markers prevalence
788	Shiao, 2008	National incidence of percutaneous injury in Taiwan	No data on HBV serological
		healthcare workers.	markers prevalence
789	Shiva, 2011	Survey of needle-stick injuries in paediatric health	No data on HBV serological
		personnel of 5 University Hospitals in Tehran.	markers prevalence
790	Shoaei, 2015	Seroprevalence of hepatitis B virus infection and	Duplicate study
		hepatitis B surface antibody status among laboratory	
		health care workers in Isfahan, Iran.	
791	Shou-Dong, 1985	Hepatitis B virus infection in hospital personnel in	No abstract and full text
		Taiwan: Is immunoprophylaxis necessary?	available
792	Shriyan, 2012	Incidence of occupational exposures in a tertiary health	No data on HBV serological
		care center.	markers prevalence

		T	T
793	Sienko, 1988	Hepatitis B vaccination programs for hospital workers: results of a statewide survey.	No Laboratory-Confirmed data
794	Siew, 1988	Screening dentists for HIV and hepatitis B.	Comment on an article
795	Simard, 2007	Hepatitis B vaccination coverage levels among	No Laboratory-Confirmed
.,,		healthcare workers in the United States, 2002-2003.	data
796	Sin, 2016	Management of health care workers following	Case series
		occupational exposure to hepatitis B, hepatitis C, and	
		human immunodeficiency virus.	
797	Singhal, 1985	A comparison of the prevalence of hepatitis-B surface	No abstract and full text
		antigen (HBsAg) positivity among hospital and non-	available
798	Skinhoj, 1980	hospital personnel. Viral hepatitis in Danish clinical chemical laboratories	No Laboratory-Confirmed
170	Skillioj, 1700	1968-1978: Incidence rates, aetiology and risk factors.	data
799	Skinhøj, 1980	Viral hepatitis in Danish clinical chemical laboratories	Duplicate study
	/- J /	19681978: incidence rates, aetiology and risk factors.	
800	Skinhoj, 1981	Viral hepatitis in Danish health care personnel, 1974-78.	No Laboratory-Confirmed
			data
801	Smith, 1985	Voluntary hepatitis-B serological screening of Indiana	No abstract and full text
002	0 11 1000	dentist.	available
802	Smith, 1986	Hepatitis B in a general psychiatric hospital.	No data on HBV serological markers prevalence
803	Smith, 1993	An audit of uptake of hepatitis B immunization amongst	No Laboratory-Confirmed
003	Silitii, 1773	hospital doctors.	data
804	Smith, 1996	Hepatitis B vaccine uptake among surgeons at a London	No Laboratory-Confirmed
	, , , , , , , , , , , , , , , , , , , ,	teaching hospital: how well are we doing?	data
805	Smith, 2004	Management of hepatitis B immunizations and blood	No Laboratory-Confirmed
		exposure incidents in primary care.	data
806	Smith, 2005	Needlestick and sharps injuries among nursing students.	No data on HBV serological
907	C1 1000	Management of health are real to a second a large state of	markers prevalence
807	Snyder, 1988	Management of health care workers remotely vaccinated for hepatitis B who sustain significant blood and body	No abstract and full text available
		fluid exposures.	avanable
808	Snydman, 1976	Nosocomial viral hepatitis B; a cluster among staff with	Sample with already known
	,	subsequent transmission to patients.	result
809	Sofola, 2003	Assessment of the compliance of Nigerian dentists with	No Laboratory-Confirmed
		infection control: A preliminary study.	data
810	Solomon, 1991	Issues in the dental care management of patients with	No data on HBV serological
		bloodborne infectious diseases: an opinion survey of	markers prevalence
811	Spradling, 2012	dental school seniors. Serologic testing for protection against hepatitis B virus	No Laboratory-Confirmed
011	Spraumig, 2012	infection among students at a health sciences university	data
		in the United States.	
812	Staff, 2002	Vaccination among household contacts of chronic	No data on HBV serological
		hepatitis B carriers by general practitioners.	markers prevalence
813	Stanford, 1995	Hepatitis B vaccination rates among staff at a district	No data on HBV serological
014	C4-f4: 2010	general hospital.	markers prevalence
814	Stefanati, 2019	Long-term persistency of hepatitis B immunity: An observational cross-sectional study on medical students	No Laboratory-Confirmed data
		and resident doctors.	uata
815	Stein, 2003	A survey of doctors' and nurses' knowledge, attitudes and	No data on HBV serological
		compliance with infection control guidelines in	markers prevalence among
		Birmingham teaching hospitals.	HCWs
816	Steinbuch, 1986	Risk of hepatitis B in hospital personnel.	Not possible to extract data
			on HBV serological markers
015	G. 1		prevalence
817	Steketee, 1988	Seroresponse to hepatitis B vaccine in patients and staff	Sample with already known
		of renal dialysis centers, Wisconsin.	result

010	G, 1000	T.C. c' 11 11 11 c' D. Ic C	N. 11
818	Stevenson, 1989	Infection control in general dental practice. Results of a	Not possible to extract data
		postal survey of 600 registered dental practitioners in	on HBV serological markers
		New South Wales.	prevalence
819	Stewardson, 2002	Occupational exposures occurring in students in a UK	Not possible to extract data
		dental school.	on HBV serological markers
			prevalence
820	Stoetter, 2013	Prevalence of Hepatitis B and C among health care	No abstract and full text
020	Stoctic1, 2013		
001	a 1 100#	professionals in a tertiary hospital in Tanzania.	available
821	Storch, 1985	Prevalence of hepatitis B antibodies in personnel at a	Duplicate study
		children's hospital.	
822	Street, 1990	Persistence of antibody in healthcare workers vaccinated	Sample with already known
		against hepatitis B.	result
823	Strickler, 1987	Prevalence of hepatitis B markers in occupational health	No abstract and full text
		nurses.	available
824	Stroffolini, 1994	Hepatitis B in health workers in Italy.	Not possible to extract data
024	Suomonini, 1994	Tiepatitis B iii fleattii workers iii ftary.	
			on HBV serological markers
			prevalence
825	Stroffolini, 1998	Hepatitis B vaccination coverage among healthcare	No abstract and full text
		workers in Italy.	available
826	Stroffolini, 2008	Increasing hepatitis B vaccination coverage among	Not possible to extract data
	,	healthcare workers in Italy 10 years apart.	on HBV serological markers
			prevalence
827	Stuart, 1994	Hepatitis B immunization: A survey of orthopaedic	Sample with already known
027	Stuart, 1994		_
		surgeons.	result
828	Suárez, 1998	Serological markers of hepatitis A, B and C in first year	No data on HBV serological
		student nurses.	markers prevalence
829	Suckling, 2006	Susceptibility of healthcare workers in Kenya to hepatitis	Sample with already known
		B: new strategies for facilitating vaccination uptake.	result
830	Sugauchi, 2000	Hepatitis B virus infection among residents of a nursing	No data on HBV serological
050	Suguacin, 2000	home for the elderly. Seroepidemiological study and	markers prevalence among
		molecular evolutionary analysis.	HCWs
021	Suljak, 1999		
831	Suijak, 1999	The occupational risk to dental anesthesiologists of	No data on HBV serological
		acquiring 3 bloodborne pathogens.	markers prevalence among
			HCWs
832	Surdan, 1974	Investigations on the presence of hepatitis antigen and of	No abstract and full text
		the homologous antibodies in veterinarians and workers	available
		attending to animals.	
833	Sureshkumar, 2011	Needle stick unjuries among health care workers - A	No data on HBV serological
-		report from India.	markers prevalence
834	Symington, 1983	Prevalence of hepatitis B among staff in a mental	No data on HBV serological
034	Symmeton, 1965		
025	TD 1.11. 2000	subnormality hospital.	markers prevalence
835	Tabibian, 2008	Hepatitis B and C among veterans on a psychiatric ward.	Only HBV positive samples
			included
836	Tabor, 1978	Prevalence of hepatitis B in a high-risk setting: A	No abstract and full text
		serologic study of patients and staff in a pediatric	available
		oncology unit.	
837	Tadakamadla, 2012	Occupational hazards and preventive practices among	No abstract and full text
337		students and faculty at a private dental institution in	available
		· ·	available
020	TD / 2000	India.	N. 1
838	Taegtmeyer, 2008	Working with risk: occupational safety issues among	No abstract and full text
		healthcare workers in Kenya.	available
839	Tafuri, 2009	An audit of vaccination coverage among vaccination	No abstract and full text
		service workers in Puglia, Italy.	available
840	Taghavi-Ardakani,	The survey on immunization response against hepatitis b	No abstract and full text
	2012	virus vaccination and related factors in health care	available
	01	workers in kashan university of medical sciences.	u · uiiuoio
0/1	Toit 1004		No data or HDV1!
841	Tait, 1994	Prevention of occupational transmission of human	No data on HBV serological
		immunodeficiency virus and hepatitis B virus among	markers prevalence
		anesthesiologists: A survey of anesthesiology practice.	

842	Taiwo, 2002	Assessing cross infection prevention measures at the Dental Clinic, University College Hospital, Ibadan.	No abstract and full text available
843	Takahashi, 1990	Sporadic acute hepatitis in hospital employees: mainly	No abstract and full text
043	Takanasin, 1990	non-A, non-B type.	available
844	Talaat, 2003	Occupational exposure to needlestick injuries and	No data on HBV serological
		hepatitis B vaccination coverage among health care	markers prevalence
		workers in Egypt.	
845	Talas, 2009	Occupational exposure to blood and body fluids among	No data on HBV serological
		Turkish nursing students during clinical practice training:	markers prevalence
		frequency of needlestick/sharp injuries and hepatitis B	
		immunisation.	
846	Tamkus, 2014	Risk of needle-stick injuries associated with the use of	Not possible to extract data
		subdermal needle electrodes during intraoperative	on HBV serological markers
		neurophysiologic monitoring.	prevalence
847	Tangney, 1991	Hepatitis B vaccine uptake amongst general practitioners	No data on HBV serological
		in the Republic of Ireland.	markers prevalence
848	Tarantola, 2006	Assessment of preventive measures for accidental blood	No data on HBV serological
		exposure in operating theaters: A survey of 20 hospitals	markers prevalence
		in Northern France.	
849	Tareen, 2005	Prevalence of hepatitis B & C virus in health care worker	Not possible to extract data
		(paramedical staff) of tertiary care hospital.	on HBV serological markers
			prevalence
850	Tarhan, 2006	Accelerated versus classical hepatitis B virus vaccination	No data on HBV serological
		programs in healthcare workers accelerated vs. classical	markers prevalence
		HBV vaccination.	
851	Tatum, 1991	Changing attitudes and behavior of dentists towards	No abstract and full text
		hepatitis B vaccinations for infectious disease control: an	available
		epidemiological review.	
852	Taty-Taty, 1990	Carrier state for HBs antigen and HBc antibody in	Not possible to extract data
		Brazzaville (congo): sero-epidemiological study in the	on HBV serological markers
		hospital and non-hospital environment.	prevalence
853	Tavoschi, 2019	Hepatitis B and C among healthcare workers and patient	Review
		groups at increased risk of iatrogenic transmission in the	
		European Union/European Economic Area.	
854	Tavoschi, 2019	Risk of transmission of vaccine-preventable diseases in	Comment on an article
		healthcare settings.	
855	Taylor, 2009	Evaluation of a hepatitis B lay health worker intervention	No data on HBV serological
		for Chinese Americans and Canadians.	markers prevalence
856	Taylor, 2013	Evaluation of a hepatitis B lay health worker intervention	No data on HBV serological
		for Cambodian Americans.	markers prevalence
857	Techapaitoon, 1987	Hepatitis-B virus infection in hospital personnel: an	No abstract and full text
		epidemiological study.	available
858	Tedder, 1980	Hepatitis B in hospitals.	No abstract and full text
			available
859	Templeton, 2010	Aboriginal health worker screening for sexually	No data on HBV serological
		transmissible infections and blood-borne viruses in a	markers prevalence
		rural Australian juvenile correctional facility.	
860	Thakur, 2010	Efficacy of Shanvac-B recombinant DNA hepatitis B	No data on HBV serological
		vaccine in health care workers of Northern India.	markers prevalence
861	Thomas, 1193	Viral hepatitis in health care personnel at The Johns	Duplicate study
		Hopkins Hospital: The seroprevalence of and risk factors	
0.75		for hepatitis B virus and hepatitis C virus infection.	
862	Thomas, 2015	Prevalence of non-responsiveness to an indigenous	No data on HBV serological
		recombinant hepatitis B vaccine: A study among South	markers prevalence
		Indian health care workers in a tertiary hospital.	
863	Thompson, 1999	Hepatitis B vaccination of personnel employed in	No data on HBV serological
		Victorian hospitals: are those at risk adequately	markers prevalence
		protected?	

864			
004	Thomson, 1989	Low prevalence of hepatitis B in mental handicap hospital.	No data on HBV serological markers prevalence
865	Tian, 2019	Anesthesiologists' acquisition of hepatitis B virus	No data on HBV serological
0.55		infection Risk and prevention.	markers prevalence
866	Tirounilacandin,	Hepatitis-B infection: Awareness among medical, dental	No data on HBV serological
	2009	interns in India.	markers prevalence
867	Toska, 2011	Hepatitis B vaccination coverage levels among nurses in	No data on HBV serological
		Greece: need for improvement.	markers prevalence
868	Tosti, 2007	Incidence of parenterally transmitted acute viral hepatitis	Not possible to extract data
		among healthcare workers in Italy.	on HBV serological markers
			prevalence
869	Tosun, 2016	Evaluation of needle stick and sharp injuries among	No abstract and full text
		healthcare personnel.	available
870	Treloar, 1994	Hospital administrators' tolerance of staff needlestick	No data on HBV serological
		injuries.	markers prevalence
871	Tsega, 1989	Do hospital personnel in hyperendemic areas require	Not possible to extract data
		immunization against hepatitis B virus (HBV) infection?	on HBV serological markers
		Is vertical transmission of HBV infection common in this	prevalence
		group?	
872	Tsetsegsaikhan,	Prevalence of serologic markers of bloodborne viral	No abstract and full text
	2010	infections among health care workers in Mongolia.	available
873	Tuckerman, 2015	Factors affecting uptake of recommended immunizations	No Laboratory-Confirmed
		among health care workers in South Australia.	data
874	Tullman, 1980	The threat of hepatitis B from dental school patients. A	No data on HBV serological
		one-year study.	markers prevalence
875	Turner, 1991	Aspects of 'safe' surgery.	No abstract and full text
			available
876	Ukena, 1987	Immune response of hospital workers to hepatitis B	Not possible to extract data
		vaccine.	on HBV serological markers
			prevalence
877	Unahalekhaka,	Prevention of needlestick and sharp injuries among	No data on HBV serological
	2014	hospitals in thailand: A national survey.	markers prevalence
878	Urata, 2007	Serological status and vaccination for hepatitis B virus in	No data on HBV serological
		nursing students during 1990-2006.	markers prevalence among
			HCWs
879	Valats, 2010	Investigation of memory B cell responses to hepatitis B	No data on HBV serological
		surface antigen in health care workers considered as non-	markers prevalence
Į.			
		responders to vaccination.	•
880	Van Laer, 2019	Occupational risk of blood-borne viruses in healthcare	Not possible to extract data
880	Van Laer, 2019		_
880	Van Laer, 2019	Occupational risk of blood-borne viruses in healthcare	Not possible to extract data
880	Van Laer, 2019 Van Ommen, 2017	Occupational risk of blood-borne viruses in healthcare	Not possible to extract data on HBV serological markers
		Occupational risk of blood-borne viruses in healthcare workers: A 20-year surveillance.	Not possible to extract data on HBV serological markers prevalence
		Occupational risk of blood-borne viruses in healthcare workers: A 20-year surveillance. Assessing maternity care providers' knowledge of the	Not possible to extract data on HBV serological markers prevalence
881	Van Ommen, 2017	Occupational risk of blood-borne viruses in healthcare workers: A 20-year surveillance. Assessing maternity care providers' knowledge of the management of hepatitis B in pregnancy.	Not possible to extract data on HBV serological markers prevalence Duplicate study
881	Van Ommen, 2017	Occupational risk of blood-borne viruses in healthcare workers: A 20-year surveillance. Assessing maternity care providers' knowledge of the management of hepatitis B in pregnancy. Assessing Maternity Care Providers' Knowledge of the Management of Hepatitis B in Pregnancy.	Not possible to extract data on HBV serological markers prevalence Duplicate study No data on HBV serological
881 882	Van Ommen, 2017 Van Ommen, 2019	Occupational risk of blood-borne viruses in healthcare workers: A 20-year surveillance. Assessing maternity care providers' knowledge of the management of hepatitis B in pregnancy. Assessing Maternity Care Providers' Knowledge of the	Not possible to extract data on HBV serological markers prevalence Duplicate study No data on HBV serological markers prevalence
881 882	Van Ommen, 2017 Van Ommen, 2019	Occupational risk of blood-borne viruses in healthcare workers: A 20-year surveillance. Assessing maternity care providers' knowledge of the management of hepatitis B in pregnancy. Assessing Maternity Care Providers' Knowledge of the Management of Hepatitis B in Pregnancy. Occupational blood exposure accidents in the	Not possible to extract data on HBV serological markers prevalence Duplicate study No data on HBV serological markers prevalence No data on HBV serological
881 882 883	Van Ommen, 2017 Van Ommen, 2019 vanWijk, 2010	Occupational risk of blood-borne viruses in healthcare workers: A 20-year surveillance. Assessing maternity care providers' knowledge of the management of hepatitis B in pregnancy. Assessing Maternity Care Providers' Knowledge of the Management of Hepatitis B in Pregnancy. Occupational blood exposure accidents in the Netherlands.	Not possible to extract data on HBV serological markers prevalence Duplicate study No data on HBV serological markers prevalence No data on HBV serological markers prevalence
881 882 883	Van Ommen, 2017 Van Ommen, 2019 vanWijk, 2010	Occupational risk of blood-borne viruses in healthcare workers: A 20-year surveillance. Assessing maternity care providers' knowledge of the management of hepatitis B in pregnancy. Assessing Maternity Care Providers' Knowledge of the Management of Hepatitis B in Pregnancy. Occupational blood exposure accidents in the Netherlands. Post-exposure prophylaxis for blood borne viral	Not possible to extract data on HBV serological markers prevalence Duplicate study No data on HBV serological markers prevalence No data on HBV serological markers prevalence No data on HBV serological
881 882 883 884	Van Ommen, 2017 Van Ommen, 2019 vanWijk, 2010 Varghese, 2003	Occupational risk of blood-borne viruses in healthcare workers: A 20-year surveillance. Assessing maternity care providers' knowledge of the management of hepatitis B in pregnancy. Assessing Maternity Care Providers' Knowledge of the Management of Hepatitis B in Pregnancy. Occupational blood exposure accidents in the Netherlands. Post-exposure prophylaxis for blood borne viral infections in healthcare workers.	Not possible to extract data on HBV serological markers prevalence Duplicate study No data on HBV serological markers prevalence No data on HBV serological markers prevalence No data on HBV serological markers prevalence
881 882 883 884	Van Ommen, 2017 Van Ommen, 2019 vanWijk, 2010 Varghese, 2003	Occupational risk of blood-borne viruses in healthcare workers: A 20-year surveillance. Assessing maternity care providers' knowledge of the management of hepatitis B in pregnancy. Assessing Maternity Care Providers' Knowledge of the Management of Hepatitis B in Pregnancy. Occupational blood exposure accidents in the Netherlands. Post-exposure prophylaxis for blood borne viral infections in healthcare workers. Epidemiology of blood and body fluid exposures among healthcare workers, in a Greek tertiary hospital.	Not possible to extract data on HBV serological markers prevalence Duplicate study No data on HBV serological markers prevalence No abstract and full text
881 882 883 884 885	Van Ommen, 2017 Van Ommen, 2019 vanWijk, 2010 Varghese, 2003 Veini, 2011	Occupational risk of blood-borne viruses in healthcare workers: A 20-year surveillance. Assessing maternity care providers' knowledge of the management of hepatitis B in pregnancy. Assessing Maternity Care Providers' Knowledge of the Management of Hepatitis B in Pregnancy. Occupational blood exposure accidents in the Netherlands. Post-exposure prophylaxis for blood borne viral infections in healthcare workers. Epidemiology of blood and body fluid exposures among healthcare workers, in a Greek tertiary hospital. Health hazard evaluation in private dental practices: a	Not possible to extract data on HBV serological markers prevalence Duplicate study No data on HBV serological markers prevalence No abstract and full text available No data on HBV serological
881 882 883 884 885	Van Ommen, 2017 Van Ommen, 2019 vanWijk, 2010 Varghese, 2003 Veini, 2011	Occupational risk of blood-borne viruses in healthcare workers: A 20-year surveillance. Assessing maternity care providers' knowledge of the management of hepatitis B in pregnancy. Assessing Maternity Care Providers' Knowledge of the Management of Hepatitis B in Pregnancy. Occupational blood exposure accidents in the Netherlands. Post-exposure prophylaxis for blood borne viral infections in healthcare workers. Epidemiology of blood and body fluid exposures among healthcare workers, in a Greek tertiary hospital. Health hazard evaluation in private dental practices: a survey in a province of northen Italy.	Not possible to extract data on HBV serological markers prevalence Duplicate study No data on HBV serological markers prevalence No abstract and full text available No data on HBV serological markers prevalence
881 882 883 884 885 886	Van Ommen, 2017 Van Ommen, 2019 vanWijk, 2010 Varghese, 2003 Veini, 2011 Veronesi, 2004	Occupational risk of blood-borne viruses in healthcare workers: A 20-year surveillance. Assessing maternity care providers' knowledge of the management of hepatitis B in pregnancy. Assessing Maternity Care Providers' Knowledge of the Management of Hepatitis B in Pregnancy. Occupational blood exposure accidents in the Netherlands. Post-exposure prophylaxis for blood borne viral infections in healthcare workers. Epidemiology of blood and body fluid exposures among healthcare workers, in a Greek tertiary hospital. Health hazard evaluation in private dental practices: a survey in a province of northen Italy. A multicentre study on epidemiology and prevention of	Not possible to extract data on HBV serological markers prevalence Duplicate study No data on HBV serological markers prevalence No data on HBV serological markers prevalence No data on HBV serological markers prevalence No abstract and full text available No data on HBV serological markers prevalence No data on HBV serological markers prevalence No data on HBV serological
881 882 883 884 885 886	Van Ommen, 2017 Van Ommen, 2019 vanWijk, 2010 Varghese, 2003 Veini, 2011 Veronesi, 2004 Veronesi, 2018	Occupational risk of blood-borne viruses in healthcare workers: A 20-year surveillance. Assessing maternity care providers' knowledge of the management of hepatitis B in pregnancy. Assessing Maternity Care Providers' Knowledge of the Management of Hepatitis B in Pregnancy. Occupational blood exposure accidents in the Netherlands. Post-exposure prophylaxis for blood borne viral infections in healthcare workers. Epidemiology of blood and body fluid exposures among healthcare workers, in a Greek tertiary hospital. Health hazard evaluation in private dental practices: a survey in a province of northen Italy. A multicentre study on epidemiology and prevention of needle stick injuries among students of nursing schools.	Not possible to extract data on HBV serological markers prevalence Duplicate study No data on HBV serological markers prevalence No data on HBV serological markers prevalence No data on HBV serological markers prevalence No abstract and full text available No data on HBV serological markers prevalence No data on HBV serological markers prevalence No data on HBV serological markers prevalence
881 882 883 884 885 886	Van Ommen, 2017 Van Ommen, 2019 vanWijk, 2010 Varghese, 2003 Veini, 2011 Veronesi, 2004	Occupational risk of blood-borne viruses in healthcare workers: A 20-year surveillance. Assessing maternity care providers' knowledge of the management of hepatitis B in pregnancy. Assessing Maternity Care Providers' Knowledge of the Management of Hepatitis B in Pregnancy. Occupational blood exposure accidents in the Netherlands. Post-exposure prophylaxis for blood borne viral infections in healthcare workers. Epidemiology of blood and body fluid exposures among healthcare workers, in a Greek tertiary hospital. Health hazard evaluation in private dental practices: a survey in a province of northen Italy. A multicentre study on epidemiology and prevention of	Not possible to extract data on HBV serological markers prevalence Duplicate study No data on HBV serological markers prevalence No data on HBV serological markers prevalence No data on HBV serological markers prevalence No abstract and full text available No data on HBV serological markers prevalence No data on HBV serological markers prevalence No data on HBV serological

890	Villasís-Keever, 2001	Prevalence of serological markers against measles, rubella, varicella, hepatitis B, hepatitis C, and human immunodeficiency virus among medical residents in	Not possible to extract data on HBV serological markers prevalence
001	XX 1	mexico.	N. 1. MDV. 1.1.1
891	Volpato, 2017	Occupational accident with biological material in the	No data on HBV serological
002	V 2006	state of São Paulo 2007-2016.	markers prevalence
892	Vos, 2006	Needlestick injury and accidental exposure to blood: the	Case report
		need for improving the hepatitis B vaccination grade among health care workers outside the hospital.	
893	Vranckx, 2004	Hepatitis B vaccination coverage in Belgian health care workers.	Not possible to extract data on HBV serological markers prevalence
894	Vranckx, 2004	Hepatitis B vaccination coverage in Belgian heath care workers.	Duplicate study
895	Vukadinovic, 1999	Needlestick and sharp injuries and recommended protective measures.	No abstract and full text available
896	Wagenheim, 2013	Assessment of liberal physician's occupational risks	No data on HBV serological
070	, ugeimeim, 2015	management on the exposure to biological fluids.	markers prevalence
897	Wakayama, 2019	Hepatitis B Immunization Analysis: Tracking of	No data on HBV serological
		Antibody Levels among Dental Patients.	markers prevalence
898	Wakibi, 2016	Level of hepatitis b virus protection of first year medicine	No data on HBV serological
		and nursing students in Mbarara university.	markers prevalence
899	Wall, 1995	Irish report urges mandatory HBV tests for doctors.	No data on HBV serological
			markers prevalence
900	Wang, 1985	Occupational exposure to hepatitis B virus among hospital personnel.	No abstract and full text available
901	Warner, 1984	Hepatitis B immune status of health workers: Survey of a regional hospital in New Brunswick.	No abstract and full text available
902	Wasnich, 1979	Prevalence of antibodies to hepatitis A and hepatitis B in a hospital population.	No abstract and full text available
903	Watson, 2006	A survey of pharmacy assistants in Grampian on prevention of HIV and hepatitis B and C.	No Laboratory-Confirmed data
904	Weber, 2001	Low prevalence of hepatitis c virus antibody among swiss dental health care workers [1].	No data on HBV serological markers prevalence
905	Weil, 1975	Viral hepatitis: its importance to dentists.	No abstract and full text available
906	Weil, 1977	A hepatitis serosurvey of New York dentists.	No abstract and full text available
907	Weiss, 1973	Viral hepatitis. A complication of extracorporeal circulations that does not spare the medical staff.	No abstract and full text available
908	Weiss, 2005	Prevalence of blood-borne pathogens in an urban,	No data on HBV serological
		university-based general surgical practice.	markers prevalence
909	Werner, 1982	Accidental hepatitis-B-surface-antigen-positive inoculations. Use of e antigen to estimate infectivity.	Sample with already known result
910	Werner, 2013	The hepatitis B vaccine protects re-exposed health care	No data on HBV serological
		workers, but does not provide sterilizing immunity.	markers prevalence
911	West, 1984	The risk of hepatitis B infection among health professionals in the United States: A review.	Review
912	Westmoreland, 1990	Immunization against hepatitis Bwhat can we expect? Results of a survey of antibody response to immunization in persons 'at risk' of occupational exposure to hepatitis B.	No data on HBV serological markers prevalence
913	Whelan, 1979	Prevalence of hepatitis B in a general hospital: screening of patients and staff.	Not possible to extract data on HBV serological markers prevalence
914	Wicker, 2008	Prevalence and prevention of needlestick injuries among health care workers in a German university hospital.	No data on HBV serological markers prevalence

915	Wicker, 2010	Occupational exposures to bloodborne viruses among German dental professionals and students in a clinical setting.	No Laboratory-Confirmed data
916	Wilcox, 1990	Incidence of hepatitis B exposure among USAF dental laboratory technicians.	No data on HBV serological markers prevalence
917	Williams, 1993	Assessing statistics for the measurement of workload at a genitourinary medicine clinic.	No data on HBV serological markers prevalence
918	Williams, 1993	Hepatitis B immunization and exposure to blood among surgical staff.	No data on HBV serological markers prevalence
919	Wilson, 2020	Vaccine hesitancy and self-vaccination behaviors among nurses in southeastern France.	No data on HBV serological markers prevalence
920	Winchester, 2010	A pilot survey to identify barriers to the reporting and management of occupational exposures to blood borne viruses in healthcare workers.	No data on HBV serological markers prevalence
921	Wisnom, 1993	Increased seroprevalence of hepatitis B in dental personnel necessitates awareness of revised pediatric hepatitis B vaccine recommendations.	No data on HBV serological markers prevalence
922	Wittmann, 2007	Needle stick injuriesrisk from blood contact in dialysis.	No data on HBV serological markers prevalence
923	Wiwanitkit, 2002	An overview of hepatitis B serology screening check-up program among Thai workers.	No data on HBV serological markers prevalence among HCWs
924	Woldesonbet, 2016	Epidemiology of needle stick-sharp injuries (NSSIs) and potential high risk exposures among health professionals in Ethiopia: Neglected public health concern.	No data on HBV serological markers prevalence
925	Wong, 2005	A hospital clinic-based survey on traditional Chinese medicine usage among chronic hepatitis B patients.	No data on HBV serological markers prevalence
926	Wongpaitoon, 1986	Prevalence of hepatitis B virus markers in hospital personnel.	No abstract and full text available
927	Woo, 1992	Compliance with infection control procedures among California orthodontists.	No data on HBV serological markers prevalence
928	Wood, 1989	Hepatitis B vaccination and GPs.	No data on HBV serological markers prevalence
929	Wood, 1993	Risk factors for lack of detectable antibody following hepatitis B vaccination of Minnesota health care workers.	Not possible to extract data on HBV serological markers prevalence
930	Wruble, 1977	Hepatitis-B surface antigen (HBsAg) and antibody (anti- HBs) prevalence among laboratory and nonlaboratory hospital personnel.	Not possible to extract data on HBV serological markers prevalence
931	Wu, 2010	Health Care-Associated Transmission of Hepatitis B and C Viruses in Endoscopy Units.	Not possible to extract data on HBV serological markers prevalence
932	Wu, 2013	Estimation of the national incidence of needlestick injury in Taiwan healthcare workers.	No data on HBV serological markers prevalence
933	Wu, 2015	Incidence of percutaneous injury in Taiwan healthcare workers.	No data on HBV serological markers prevalence
934	Xu, 2013	A cross-sectional survey on the incidence of sharps injuries among healthcare workers at 26 hospitals in China.	No data on HBV serological markers prevalence
935	Yaacob, 1989	Awareness and acceptance of the hepatitis B vaccine by dental practitioners in Malaysia.	No data on HBV serological markers prevalence
936	Yacoub, 2010	Hepatitis B vaccination status and needlestick injuries among healthcare workers in syria.	Not possible to extract data on HBV serological markers prevalence
937	Yacovone, 1985	Acceptance of hepatitis B vaccine by Rhode Island dental practitioners.	No data on HBV serological markers prevalence
938	Yamazhan, 2011	Nursing students' immunisation status and knowledge about viral hepatitis in Turkey: a multi-centre cross-sectional study.	No Laboratory-Confirmed data

939	Yana-Victor, 1998	Fitness for work and health care workers carriers of hepatitis virus B/C.	No abstract and full text available
940	Yasin, 2019	Occupational exposure to blood and body fluids and	No data on HBV serological
340	1 asiii, 2019		•
		associated factors among health care workers at the	markers prevalence
		University of Gondar Hospital, Northwest Ethiopia.	
941	Yavuz, 2005	Seroprevalence of varicella, measles and hepatitis B	Not possible to extract data
		among female health care workers of childbearing age.	on HBV serological markers
			prevalence
942	Yen, 2005	Study of hepatitis B (HB) vaccine non-responsiveness	Not possible to extract data
7.2	1011, 2005	among health care workers from an endemic area	on HBV serological markers
		1	_
0.42	XX 1 2001	(Taiwan).	prevalence
943	Yengopal, 2001	Infection control among dentists in private practice in	No data on HBV serological
		Durban.	markers prevalence
944	Younai, 2001	Occupational exposures to blood in a dental teaching	No data on HBV serological
		environment: results of a ten-year surveillance study.	markers prevalence among
			HCWs
945	Younai, 2010	Health Care-Associated Transmission of Hepatitis B & C	Not possible to extract data
343	Toulial, 2010	_	
		Viruses in Dental Care (Dentistry).	on HBV serological markers
			prevalence
946	Younossi, 2000	Viral hepatitis guide for practicing physicians. Cleveland	No abstract and full text
		Clinic of Medicine.	available
947	Yousafzai, 2014	Hepatitis B vaccination among primary health care	No data on HBV serological
<i>,</i> . ,	1000001201, 2011	workers in Northwest Pakistan.	markers prevalence
0.49	Vuon 2010		•
948	Yuan, 2019	Hepatitis B vaccination coverage among health care	No data on HBV serological
		workers in China.	markers prevalence
949	Zaffina, 2014	Repeated vaccinations do not improve specific immune	Not possible to extract data
		defenses against Hepatitis B in non-responder health care	on HBV serological markers
		workers.	prevalence
950	Zarra, 2013	Percutaneous injuries amongst Greek endodontists: A	No data on HBV serological
, , ,	,	national questionnaire survey.	markers prevalence
951	Zeesham, 2007	Evaluation of immune response to Hepatitis B vaccine in	No data on HBV serological
931	Zeesiiaiii, 2007		_
		health care workers at a tertiary care hospital in Pakistan:	markers prevalence
		an observational prospective study.	
952	Zeinali, 2017	Hepatitis B in exposed healthcare workers: Prevalence,	No abstract and full text
		HBS antibody and reason of injury.	available
953	Zhang, 2009	Occupational exposure to blood and body fluids among	No data on HBV serological
	C.	health care workers in a general hospital, China.	markers prevalence
954	Zheng, 2013	Status of HBV infection and vaccination among health	No abstract and full text
	Zneng, 2013	care workers in a public general hospital: A retrospective	available
			avanable
0.5.5	7' 1 2012	cohort study.	N. I. MDV. I I I
955	Ziglam, 2013	Hepatitis B vaccination status among healthcare workers	No data on HBV serological
		in a tertiary care hospital in Tripoli, Libya.	markers prevalence
956	Zogheib, 2011	Epidemiological study of accidents with biological	No data on HBV serological
		material involving healthcare workers exposed to	markers prevalence
		hepatitis B, C and HIV.	
957	Zoulek, 1986	Vaccination against hepatitis B. An overview with	No abstract and full text
731	2001CK, 1700	consideration of the epidemiology of hepatitis B among	available
			availauic
0.70	7 1 1007	medical personnel.	N 1
958	Zourbas, 1985	Immunization of dental surgeons against hepatitis B virus	No abstract and full text
		infection.	available
959	Zourbas, 1985	Vaccination of dental surgeons against viral hepatitis B.	Sample with already known
	·		result
960	Zourbas, 1985	Sero-epidemiologic study of markers for hepatitis B in	No abstract and full text
700	2001003, 1703	dentists in Ille-et-Vilaine.	available
0.61	71 1007		
961	Zourbas, 1985	Seroepidemiology of hepatitis B markers in dentists in	Duplicate study
		Ille-et-Vilaine.	
962	Zourbas, 1985	Serological and epidemiological study of hepatitis B	Duplicate study
		markers in dentists from the Ille-and Vilaine department.	
		1	1

963	Zuberi, 2000	Prevalence of hepatitis-B core antibodies amongst health	No abstract and full text
		care workers [2] (multiple letters).	available

Supplementary Table 5. Risk of bias assessment

											r
	Was the study's target	Was the sampling frame a	Was some form of random	Were data collected directly	Was an acceptable inclusion	Was the response rate ≥ 70	Was the HBV detection assay	Was the same mode of data	Was the length of the study		Risk of bias
	population a close	true or close representation of	selection used to select the	from the subjects (as opposed	criteria definition used in the	% or not significant different	shown to have reliability and	collection used for all	period > or = 1 year?	denominator(s) for the HBV	
	representation of the national	the target population?	sample, OR was acensus	to a proxy)?	study?	inrelevantdemographic	validity?	subjects?		prevalence appropriate?	
	population in relation to		undertaken?			characteristics between					
	HBVprevalence?					responders and					
						nonresponders?					
						No	Yes				Moderate risk of bias
	No			Yes	No	No	Yes	Yes	Unclear	Yes	Moderate risk of bias
	No	Yes		Yes	No	No	Yes	Yes	Unclear	Yes	Moderate risk of bias
	No	Yes		Yes	No	No	Yes	Yes	Unclear	Yes	Moderate risk of bias
						No	Yes		Yes	Yes	Moderate risk of bias
	No			Yes	Yes	No	Yes		No	Yes	Moderate risk of bias
	No	Yes		Yes	Yes	No	Yes		No	Yes	Moderate risk of bias
	No	Yes		Yes	Yes	No	Yes		No	Yes	Moderate risk of bias
						No	Yes		No		Moderate risk of bias
Ajayi, 2007	No		No			No	Yes	Yes	No	Yes	Moderate risk of bias
	No			Yes		No	Yes		No	Yes	Moderate risk of bias
							Yes				Moderate risk of bias
	No					No	Yes	Yes	No		Moderate risk of bias
	No	Yes	No	Yes		No	Yes		No		Moderate risk of bias
	No	Yes		Yes	No	Yes	Yes		Yes	Yes	Low risk of bias
Al-Sohaibani, 1995	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Low risk of bias
	No			Yes	No	Yes	Yes		No	Yes	Moderate risk of bias
Alese, 2016	No			Yes	No	No	Yes		No	Yes	Moderate risk of bias
Alese, 2016	No	Yes		Yes	No	No	Yes		No	Yes	Moderate risk of bias
	No			Yes	No	Yes	Yes		Unclear	Yes	Moderate risk of bias
riiquittarii, 2011	No	Yes	140	Yes	No	Yes	Yes		Unclear	Yes	Moderate risk of bias
Algahtani, 2014	No			Yes	No	Yes	Yes	Yes	Unclear	Yes	Moderate risk of bias
Ammon, 2000	No	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Moderate risk of bias
Ammon, 2000	No	Yes				No	Yes	Yes	No		Moderate risk of bias
						No	Yes		No		Moderate risk of bias
	No	Yes	No	Yes	Yes	No	Yes		No	Yes	Moderate risk of bias
Amsalu, 2016	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Low risk of bias
		Yes				No	Yes		Yes	Yes	Low risk of bias
	No			Yes	Yes	No	Yes		Yes	Yes	Low risk of bias
	No	Yes		Yes	Yes	Yes	Yes		No	Yes	Low risk of bias
Bacârea, 2017	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Low risk of bias
Bahmani, 2010	No	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Moderate risk of bias
Bahmani, 2010	No	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Moderate risk of bias
Bahmani, 2010	No	Yes	No	Yes	Yes	No	Yes		No	Yes	Moderate risk of bias
Bahmani, 2010	No	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Moderate risk of bias
Bahmani, 2010	No	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Moderate risk of bias
Bahmani, 2010	No			Yes		No	Yes		No	Yes	Moderate risk of bias
Bahmani, 2010	No	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Moderate risk of bias
Bahmani, 2010	No	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Moderate risk of bias
Bahmani, 2010	No	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Moderate risk of bias
Bahmani, 2010	No	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Moderate risk of bias
Bahmani, 2010	No	Yes	No	Yes	Yes	No	Yes		No	Yes	Moderate risk of bias
	No	Yes	No	Yes	Yes	No	Yes		No	Yes	Moderate risk of bias
Baldinger, 1986	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Low risk of bias
	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Unclear	Yes	Low risk of bias
	No	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Moderate risk of bias
	No	Yes		Yes	Yes	No	Yes		Unclear	Yes	Moderate risk of bias
Bass, 1982	No			Yes	Yes	No	Yes	Yes	Unclear	Yes	Moderate risk of bias
Batista, 2006	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Low risk of bias
	No	Yes		Yes	Yes	Yes	Yes		Yes	Yes	Low risk of bias
	No	Yes			Yes	Yes	Yes		Unclear	Yes	I ow risk of bias
		Yes			No	Yes	Yes		Yes	Yes	Low risk of bias
Bellissimo-Rodrigues, 2006						Yes	Yes		Yes	Yes	Low risk of bias
Belo, 2000	No					No	Yes		Unclear	Yes	Moderate risk of bias
	No	Yes		Yes	No	Yes	Yes	Yes	Yes	Yes	Low risk of bias
	No	Yes			No	Yes	Yes		Yes	Yes	Low risk of bias
	No	Yes	No	Yes	No	No	Yes		Unclear	Yes	Moderate risk of bias
	No			Yes	No	No	Yes		Yes	Yes	Moderate risk of bias
	No	Yes		Yes	No	Yes	Yes		Yes	Yes	Low risk of bias
	No	Yes	No	Yes	No	No	Yes		Yes	Yes	Moderate risk of bias
Bidivale, 1992	No	Yes		Yes	No	No	Yes	Yes	Yes	Yes	Moderate risk of bias
	No	Yes		Yes	No	Yes	Yes	Yes	No	Yes	Moderate risk of bias
	No	Yes		Yes	Yes	No	Yes		Yes	Yes	Low risk of bias
Birguel, 2011	No	Yes	No	Yes	No	No	Yes	Yes	Unclear	Yes	Moderate risk of bias
Blanloeil, 1985	No			Yes	No	No	Yes	Yes	Yes	Yes	Moderate risk of bias
	No	Yes		Yes	No	No	Yes		Yes	Yes	Moderate risk of bias
	No	Yes	Yes	Yes	No	Yes	Yes		Yes	Yes	Low risk of bias
Braka, 2006	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Low risk of bias
	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Low risk of bias
Braka, 2006	No	Yes		Yes	No	Yes	Yes	Yes	Yes	Yes	Low risk of bias
						Yes	Yes		Yes	Yes	Low risk of bias
	No	Yes		Yes	No	Yes	Yes		Yes	Yes	Low risk of bias
	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Low risk of bias
Braka, 2006	No	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Low risk of bias
	No	Yes		Yes	No	Yes	Yes		Yes	Yes	Low risk of bias
Butsashvili, 2012						No	Yes		Yes		Moderate risk of bias
		Yes					Yes	Yes			
Cardell, 1999				Yes	No	No			Yes	Yes	ivioderate risk of dias
Cardell, 1999 Carneiro, 2003	No		No	Yes Yes	No Yes	No No	Yes	Yes	Yes Unclear	Yes Yes	Moderate risk of bias Moderate risk of bias
Cardell, 1999 Carneiro, 2003 Chaudhari, 2008	No No	Yes	No No	Yes	Yes			Yes		Yes	
Cardell, 1999 Cameiro, 2003 Chaudhari, 2008 Chernesky, 1984	No No No No	Yes Yes Yes	No No No	Yes	Yes	No No	Yes Yes	Yes Yes	Unclear Yes	Yes Yes	Moderate risk of bias Moderate risk of bias
Cardell, 1999 Cameiro, 2003 Chaudhari, 2008 Chemesky, 1984 Chiarakul, 2007	No No No No No	Yes Yes Yes Yes	No No No No	Yes Yes Yes	Yes No No	No No No	Yes Yes Yes	Yes Yes	Unclear	Yes	Moderate risk of bias
Cardell, 1999 Cameiro, 2003 Chaudhari, 2008 Chemesky, 1984 Chiarakul, 2007 Chiarakul, 2007	No No No No No	Yes Yes Yes Yes	No No No No No	Yes Yes Yes	Yes No No	No No	Yes Yes	Yes Yes Yes Yes	Unclear Yes Yes	Yes Yes Yes	Moderate risk of bias Moderate risk of bias Moderate risk of bias
Cardell, 1999 Carneiro, 2003 Chaudhari, 2008 Chernesky, 1984 Chiarakul, 2007 Chiarakul, 2007 Chiarakul, 2007	No No No No No No	Yes Yes Yes Yes Yes Yes Yes	No No No No No	Yes Yes Yes Yes Yes	Yes No No No No	No No No No	Yes Yes Yes Yes	Yes Yes Yes Yes Yes	Unclear Yes Yes Yes	Yes Yes Yes Yes Yes	Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias

Chiarakul, 2007	No		No			No		Yes		Yes	Moderate risk of bias
			No							Yes	Moderate risk of bias
Chiarakul, 2007	No		No			No				Yes	Moderate risk of bias
Chiarakul, 2007	No	Yes	No		No	No		Yes		Yes	Moderate risk of bias
Chiarakul, 2007	No		No			No				Yes	Moderate risk of bias
			No			No				Yes	Moderate risk of bias
Chiarakul, 2007	No		No		No	No		Yes		Yes	Moderate risk of bias
Ciorla, 2005	No		No		No	Yes		Yes		Yes	Low risk of bias
Daw, 2000			No							Yes	Moderate risk of bias
			No					Yes			Moderate risk of bias
de Liefde, 1987	No		No			No		Yes	Yes	Yes	Moderate risk of bias
de Paiva, 2008	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Low risk of bias
Deby, 2015	No	Yes	No	Yes	No	No	Yes	Yes	No	Yes	Moderate risk of bias
Deby, 2015	No	Yes	No	Yes	No	No	Yes	Yes	No	Yes	Moderate risk of bias
Deby, 2015	No	Yes	No	Yes	No	No	Yes	Yes	No	Yes	Moderate risk of bias
Demsiss, 2018	No	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Moderate risk of bias
Dentico, 1991	No	Yes	No	Yes	No	No	Yes	Yes	Unclear	Yes	Moderate risk of bias
Di Nardo, 1995	No	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	Moderate risk of bias
Dienstag, 1982	No		No			No		Yes	Unclear	Yes	Moderate risk of bias
Djeriri, 2008	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Low risk of bias
Djeriri, 2008	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Low risk of bias
Djeriri, 2008	No	Yes	Yes	Yes	No	No	Yes	Yes	Yes	Yes	Low risk of bias
Djeriri, 2008	No	Yes	Yes	Yes	No	No	Yes	Yes		Yes	Low risk of bias
Djeriri, 2008			Yes			No				Yes	I ow risk of bias
Djeriri, 2008			Yes							Yes	Low risk of bias
Djeriri, 2008	No		Yes			No				Yes	Low risk of bias
Dieriri, 2008	No		Yes			No		Yes		Yes	Low risk of bias
Djeriri, 2008			Yes							Yes	Low risk of bias
Djeriri, 2008	No		Yes			No		Yes		Yes	Low risk of bias
Domínguez, 2017	No		No.	Yes		No		Yes		Yes	Moderate risk of bias
Domínguez, 2017		Yes	No	Yes			Yes			Yes	Moderate risk of bias
			No.								Moderate risk of bias
Dorkenoo, 2014	No		No			No				Yes	Moderate risk of bias
Dorkenoo, 2014 Dorkenoo, 2014	No No		No.			No No		Yes		Yes	Moderate risk of bias
	No No		No.							Yes Yes	Moderate risk of bias
	No No		No No		No	No.				Yes	
Duseja, 2002						140		Yes			Moderate risk of bias
Elavia, 1992			No			No No				Yes	Moderate risk of bias
Elavia, 1992	No		No					Yes		Yes	Moderate risk of bias
			No							Yes	Moderate risk of bias
Elduma, 2011	No		Yes		No					Yes	Low risk of bias
Elduma, 2011	No		Yes			No				Yes	Low risk of bias
			Yes							Yes	Low risk of bias
			No								Moderate risk of bias
El-Hazmi, 2008	No		No							Yes	Moderate risk of bias
El-Hazmi, 2008	No	Yes	No	Yes	No	No	Yes	Yes		Yes	Moderate risk of bias
Elmaghloub, 2017	No		No							Yes	Moderate risk of bias
Elmaghloub, 2017	No		No							Yes	Moderate risk of bias
Elmaghloub, 2017	No	Yes	No	Yes	No	No			No	Yes	Moderate risk of bias
Elmaghloub, 2017	No		No			No		Yes	No	Yes	Moderate risk of bias
Elmaghloub, 2017	No	Yes	No	Yes	No	No	Yes	Yes	No	Yes	Moderate risk of bias
Elmaghloub, 2017	No	Yes	No	Yes	No	No	Yes	Yes	No	Yes	Moderate risk of bias
Elmaghloub, 2017	No	Yes	No		No	No				Yes	Moderate risk of bias
Elmaghloub, 2017	No	Yes	No	Yes	No	No	Yes	Yes	No	Yes	Moderate risk of bias
Elmaghloub, 2017	No	Yes	No	Yes	No	No	Yes	Yes	No	Yes	Moderate risk of bias
Elmaghloub, 2017	No	Yes	No	Yes	No	No	Yes	Yes	No	Yes	Moderate risk of bias
Elmukashfi, 2012	No		Yes		No	No		Yes		Yes	Moderate risk of bias
Elmukashfi, 2012	No		Yes			No		Yes		Yes	Moderate risk of bias
Flmukashfi 2012	No		Yes		No	No		Yes		Yes	Moderate risk of bias
Elmukashfi, 2012			Yes					Yes		Yes	Moderate risk of bias
Elmukashfi, 2012	No		Yes			No.		Yes		Yes	Moderate risk of bias
			No.								Moderate risk of bias
Elzouki, 2014			No.							Yes	Moderate risk of bias
Elzouki, 2014	No		No			No			110	Yes	Moderate risk of bias
Elzouki, 2014	No	Yes	No	Yes						Yes	Moderate risk of bias
			No.							Yes	Moderate risk of bias
Elzouki, 2014	No.		No.			No.				Yes	Moderate risk of bias
Erhabor, 2007	No No		No			No No		Yes		Yes	Moderate risk of bias
			No.							Yes Yes	
Eskandarani, 2014	No No										Moderate risk of bias
			No No							Yes	Moderate risk of bias
Feldman, 1975	No		No			No				Yes	Moderate risk of bias
Ferreira, 1999	No		No		No	Yes		Yes		Yes	Moderate risk of bias
Figueroa, 1994	No		No		No	Yes		Yes		Yes	Low risk of bias
Fisker, 2003	No		No	Yes						Yes	Moderate risk of bias
Fligner, 1989	No		No			Yes				Yes	Low risk of bias
Fligner, 1989	No		No		No	Yes		Yes		Yes	Low risk of bias
			No							Yes	Moderate risk of bias
Fritzche, 2013		100	No		100	No				Yes	Moderate risk of bias
Fritzche, 2013	No		No		Yes	No		Yes	No	Yes	Moderate risk of bias
Fritzche, 2013	No		No			No		Yes		Yes	Moderate risk of bias
Fritzche, 2013			No							Yes	Moderate risk of bias
Froesner, 1975			No							Yes	Moderate risk of bias
Fukumoto, 1989			No					Yes		Yes	Moderate risk of bias
			No							Yes	Moderate risk of bias
Funderburke, 2000			Yes							Yes	Moderate risk of bias
Funderburke, 2000 Ganczak, 2010	No					No				Yes	Moderate risk of bias
Ganczak, 2010		Yes	Yes	Yes							
Ganczak, 2010 Ganczak, 2010	No		Yes Yes								
Ganczak, 2010		Yes	Yes Yes No	Yes	No	No No	Yes	Yes	Yes	Yes Yes	Low risk of bias
Ganczak, 2010 Ganczak, 2010 Ganju, 2000 Garzillo, 2020	No No	Yes Yes	Yes No	Yes Yes	No Yes	No No	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Low risk of bias Low risk of bias
Ganczak, 2010 Ganczak, 2010 Ganju, 2000 Garzillo, 2020 Garzillo, 2020	No No No No	Yes Yes Yes	Yes No No	Yes Yes	No Yes Yes	No No	Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Low risk of bias Low risk of bias Low risk of bias
Ganczak, 2010 Ganczak, 2010 Ganju, 2000 Garzillo, 2020	No No No No No	Yes Yes Yes Yes	Yes No	Yes Yes Yes Yes	No Yes Yes Yes	No No No No	Yes Yes Yes Yes	Yes Yes Yes Yes	Yes Yes Yes Yes	Yes Yes	Low risk of bias Low risk of bias

Garzillo, 2020 No Yes No Yes No Yes No Yes No Yes Yes Yes Yes Yes Yes Yes Segarzillo, 2020 No Yes No No Yes Yes No No Yes	Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias
Garzilo, 2020 No	Low risk of bias Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Gebrenariam, 2019 No Yes	Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias
Gershon, 2007 No	Moderate risk of bias Low fisk of bias Low fisk of bias Low fisk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias
Gershon 2007 No Yes Ye	Moderate risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias
Gerbon, 2007 No Yes Ye	Moderate risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias
Gebs. 1992 No	Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias
Gol. 2017 No	Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias
Goh, 1988 No Yes No Yes No Yes Unclear Yes Goldbernd, 1999 No Yes No Yes No Yes	Moderate risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias
Goldbern 1999 No Yes No Yes No Yes Yes No Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias
Goldsmith, 1989 No Yes No Yes No Yes No Yes Ye	Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias
Gouthan 1976 No	Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias
Grady, 1975 No Yes Yes Yes Yes No Yes Yes Unclear Yes	Low risk of bias Low risk of bias Low risk of bias
Grady, 1982 No	Low risk of bias Low risk of bias
Grady, 1982 No Yes No Yes	Low risk of bias
Grady, 1982 No	
Grady, 1982 No	Low rick of bigs
Grady, 1982 No Yes No Yes Y	
Grady, 1982 No Yes No Yes No Yes Y	Low risk of bias
Grady, 1982 No Yes No Yes No Yes Yes No Yes	Low risk of bias
Grady, 1982 No Yes No Yes Yes Yes Yes Yes Yes	
Grady 1982 NO Yes NO Yes NO Yes Yes NO Yes	Low risk of bias
IGrady 1982 INO IYes INO IYes IVes IVes IVes IVes IVes IVes IVes IV	Low risk of bias
	Low risk of bias
Gutierrez, 2005 No Yes No Yes Ves Yes Yes Yes Yes Yes Yes	Low risk of bias
Hadler, 1985 No Yes No Yes Ves Unclear Yes	Moderate risk of bias
Hakre, 1995 No Yes No Yes No Yes Yes No Yes Yes No Yes	Moderate risk of bias
Hansson 1977 No Yes No Yes Yes Yes Yes Yes Yes Yes Yes	I ow risk of bias
Hardt 1979 No Yes No Yes No Yes No Yes Yes Yes Yes Yes Yes	Low risk of bias
	Low risk of bias
	Moderate risk of bias
Himmelreich, 2013 No Yes No Yes Yes Yes Yes	Moderate risk of bias
Hirschowitz, 1980 No Yes No Yes Yes Yes Yes Yes	Moderate risk of bias
Hofmann, 1988 No Yes No Yes No No Yes Unclear Yes	Moderate risk of bias
Hollinger, 1977 No Yes No Yes No Yes No Yes Ves Unclear Yes	Moderate risk of bias
Hollinger, 1977 No Yes No Yes No Yes No Yes Ves Unclear Yes	Moderate risk of bias
Holt, 1986 No Yes No No Yes No No Yes Yes No Yes	Moderate risk of bias
Hovig, 1985 No Yes No Yes No No Yes No Yes	Moderate risk of bias
100 100 100 100 100 100 100 100 100 100	Moderate risk of bias
Ingerslev, 1988 No Yes No Yes No No Yes Yes Yes Yes Yes	Moderate risk of bias
Ingerslev, 1988 No Yes No Yes No No Yes Yes Yes Yes Yes	Moderate risk of bias
Ingerslev, 1988 No Yes No Yes No Yes Yes Yes Yes Yes	Moderate risk of bias
Irmark, 2010 No Yes No Yes No Yes No Yes No Yes	Moderate risk of bias
Iserson, 1984 No Yes No Yes No Yes No Yes Unclear Yes	Moderate risk of bias
Iserson, 1985 No Yes No Yes No Yes No Yes	Moderate risk of bias
lyanova 2013 No Yes No Yes No Yes Unclear Yes	Moderate risk of bias
Janzen, 1978 No Yes No Yes No Yes Yes Yes Yes Yes	Moderate risk of bias
Jha, 2012 No Yes No Yes Yes Unclear Yes	Moderate risk of bias
Jha, 2012 No Yes No Yes Yes Unclear Yes	Moderate risk of bias
Kardam, 2014 No Yes No Yes No Yes No Yes No Yes	Moderate risk of bias
Kardam, 2014 No Yes No Yes No Yes No Yes Yes No Yes	Moderate risk of bias
Kashiwagi, 1985 No Yes No Yes No Yes Yes Yes Yes Yes	Moderate risk of bias
Kashiwaqi, 1985 No Yes No Yes No Yes Y	Moderate risk of bias
Rashiwagi, 1985 No Yes No No Yes No No Yes Yes Yes	Moderate risk of bias
Teas	Moderate risk of bias
No Yes No Yes No Yes No No Yes No No Yes No No Yes No No No No Yes No	Moderate risk of bias
Kefenie, 1989 No Yes No Yes Ves No Yes Yes No Yes	Moderate risk of bias
Kefenie, 1989 No Yes No Yes Yes No Yes No Yes Kefenie, 1989 No Yes No Yes No Yes No Yes	Moderate risk of bias
Kefenie, 1989 No Yes No Yes Ves No Yes Yes No Yes	
Kefenie, 1989 No Yes No Yes Yes No Yes No Yes Kefenie, 1989 No Yes No Yes No Yes No Yes	Moderate risk of bias
Kefenie, 1989 No Yes No Yes<	Moderate risk of bias Moderate risk of bias
Kefenie, 1989 No Yes No	Moderate risk of bias
Kefenie, 1989 No Yes No Yes<	Moderate risk of bias
Kefenie, 1989 No Yes No Yes No Yes Yes Yes No Yes Yes Yes No Yes Yes Yes No Yes Yes No Yes	Moderate risk of bias
Kefenie, 1989 No Yes No Yes<	Moderate risk of bias
Kefenie, 1989 No Yes No Yes No Yes No Yes Yes No Yes Yes Yes No Yes Yes Yes No Yes Y	Moderate risk of bias
Kefenie, 1989 No Yes Yes No Yes No Ye	Moderate risk of bias
Kefenie, 1989 No Yes No Yes No Yes No Yes Yes No Yes Yes No Yes Yes Yes No Yes Yes No Yes Yes No Yes Yes Yes No Yes Yes No Yes Yes Yes No Yes Yes No Yes	Moderate risk of bias
Kefenie, 1989 No Yes No Yes No Yes No Yes Yes No Yes Yes No Yes Yes Yes No Yes Yes Yes No Yes Yes Yes Yes No Yes Yes Yes Yes Yes No Yes No Yes Yes Yes Yes No Yes Yes Yes No Yes Yes No Yes Yes Yes No Yes Yes Yes No Yes Yes No Yes Yes No Yes Yes Yes No Yes Yes Yes Yes No Yes	Moderate risk of bias
Kefenie, 1989 No Yes No Yes No Yes No Yes Yes No Yes Yes No Yes	Moderate risk of bias
Kefenie, 1989 No Yes No Yes No Yes No Yes Yes No Yes Yes No Yes Yes Yes No Yes Yes Yes No Yes Yes Yes Yes No Yes Yes Yes Yes Yes No Yes No Yes Yes Yes Yes No Yes Yes Yes No Yes Yes No Yes Yes Yes No Yes Yes Yes No Yes Yes No Yes Yes No Yes Yes Yes No Yes Yes Yes Yes No Yes	Moderate risk of bias
Kefenie, 1989 No Yes No Yes No Yes Yes Yes No Yes Y	Moderate risk of bias
Kefenie, 1989 No Yes No Yes No Yes Yes Yes No Yes	Moderate risk of bias
Kefenie, 1989 No	Moderate risk of bias Low risk of bias
Kelenie, 1989 No Yes No Yes No Yes No Yes Yes No Yes Yes No Yes No Yes Yes Yes No Yes Yes No Yes Yes Yes No Yes	Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias
Kefenie, 1989 No Yes No Yes No Yes No Yes Yes No Yes Yes No Yes Yes Yes No Yes Yes No Yes Yes Yes No Yes Yes Yes Yes No Yes	Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias
Kelenie, 1989 No Yes No Yes No Yes No Yes Xelenie, 1989 No Yes No Yes Yes No Yes Yes No Yes Xelenie, 1989 No Yes Yes No Yes Yes No Yes Yes No Yes Xelenie, 1989 No Yes Yes No Yes Yes No Yes Xelenie, 1989 No Yes Yes No Yes Yes No Yes Xelenie, 1989 No Yes Yes No Yes Yes No Yes Xelenie, 1989 No Yes Yes No Yes Yes No Yes Xelenie, 1989 No Yes Yes No Yes Yes No Yes Xelenie, 1989 No Yes Yes No Yes Yes No Yes Xelenie, 1989 No Yes Yes No Yes Yes No Yes Xelenie, 1989 No Yes Yes No Yes Yes No Yes Yes No Yes Yes Xelenie, 1989 No Yes Yes Yes No Yes Yes Yes No Yes Yes Yes Yes No Yes Yes Yes Yes No Yes	Moderate risk of bias Low risk of bias Moderate risk of bias
Kefenie, 1989 No Yes No Yes No Yes No Yes Yes No Yes Yes Yes No Yes Yes Yes No Yes Yes Yes Yes Yes No Yes Yes Yes Yes Yes No Yes Yes Yes No Yes Yes Yes Yes Yes Yes No Yes Yes Yes Yes Yes No Yes Yes Yes Yes Yes No Yes	Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias
Kefenie, 1989 No	Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias
Kefenie, 1989 No Yes No Yes No Yes No Yes Yes No Yes Yes Yes No Yes Yes Yes No Yes Yes No Yes Yes Yes Yes Yes No Yes Yes Yes Yes No Yes Yes Yes No Yes Yes Yes Yes Yes Yes Yes No Yes Yes Yes No Yes Yes Yes Yes Yes No Yes Yes Yes Yes No Yes Yes Yes Yes Yes No Yes Yes Yes Yes Yes Yes Yes No Yes Yes	Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias
Kelenie, 1989 No Yes No Yes No Yes Yes No Yes Yes No Yes Yes No Yes Kelenie, 1989 No Yes No Yes Yes No Yes Yes No Yes Kelenie, 1989 No Yes No Yes Yes Yes No Yes Yes No Yes Yes Yes Yes Yes No Yes	Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias
Exelente, 1989	Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias
Exelente 1989	Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias
Kefenie, 1989 No	Moderate risk of bias Low risk of bias Moderate risk of bias
Feeline, 1989 No Yes No Yes Yes Yes No Yes Yes No Yes Yes No Yes Yes Yes No Yes Yes Yes Yes No Yes	Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias
Kefenie, 1989 No Yes No Yes Yes Yes No Yes Yes Yes No Yes Yes Yes Yes No Yes	Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias
	Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias
Explainer 1899 No Yes No Yes Yes Yes No Yes Yes Yes No Yes	Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Vest No Vest No Vest No Vest Vest Vest No Vest Vest Vest No Vest Vest Vest No Vest	Moderate risk of bias Low fisk of bias Low fisk of bias Low fisk of bias Low fisk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias
Edelmin, 1893 No Yes No Yes Yes Yes No Yes	Moderate risk of bias Low fisk of bias Low fisk of bias Low fisk of bias Low fisk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias
Edelenie, 1889 No Yes No Yes Yes Yes No Yes Ye	Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Edelina 1989 No Yes No Yes Yes No Yes Yes No Yes Yes Yes No Yes	Moderate risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Edelmin 1989 NO Yes NO Yes Yes Yes NO Yes Yes Yes NO Yes Yes Yes Yes NO Yes Y	Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Ederina 1939 NO Yes NO Yes NO Yes Yes Yes NO Yes Yes Yes NO Y	Moderate risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Experiment 1988	Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias
Ederina 1939 NO Yes NO Yes NO Yes Yes Yes NO Yes Yes Yes NO Y	Moderate risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias

	L.		r.		T	r					
Lungosi, 2019						No	Yes				Moderate risk of bias
Ly, 2014	No	Yes	No	Yes		No			Unclear		Moderate risk of bias
Ly, 2014	No	Yes	No	Yes	No	No	Yes	Yes	Unclear	Yes	Moderate risk of bias
Malm, 1986	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Unclear	Yes	Low risk of bias
Malm, 1986	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Unclear	Yes	Low risk of bias
Malm, 1986	No	Yes	No	Yes	Yes	Yes	Yes			Yes	Low risk of bias
Marena 1996	No	Yes			Yes	Yes	Yes			Yes	Low risk of bias
Marinho, 1999		Yes				No.	Yes				Low risk of bias
Martin, 1986					Yes	No					Moderate risk of bias
Massaquoi, 2018	No	Yes		Yes		No	Yes		No		Moderate risk of bias
Massaquoi, 2018	No	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Moderate risk of bias
Memon, 2012	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Low risk of bias
Méndez-Sánchez, 2006	No	Yes		Yes		No	Yes				Moderate risk of bias
Meriki, 2018	No	Yes		Yes	Yes	No	Yes				Moderate risk of bias
Mosendane 2012		Yes			Yes	Yes	Yes				Low risk of bias
Mosendane, 2012					Yes	Yes	Yes				Low risk of bias
Mosendane, 2012	No	Yes		Yes	Yes	Yes	Yes		No	Yes	Low risk of bias
Mosendane, 2012		Yes			Yes	Yes	Yes				Low risk of bias
Mosley, 1975	No	Yes		Yes	No	No	Yes		Yes	Yes	Moderate risk of bias
Mueller, 2015	No	Yes		Yes	Yes	No	Yes		Yes	Yes	Low risk of bias
Mueller, 2015	No	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	Low risk of bias
Muieeb, 1998	No	Yes		Yes	Yes	No	Yes		Unclear	Yes	Moderate risk of bias
Nagao, 2008	No		No	Yes	No	Yes	Yes			Yes	Low risk of bias
Nagashima, 2019	No	Yes		Yes	No	Yes	Yes			Yes	Low risk of bias
Nayyar, 2017											Low risk of bias
Nayyar, 2017					No	Yes	Yes				Low risk of bias
Nayyar, 2017	No			Yes				Yes	Yes	Yes	Low risk of bias
Nayyar, 2017	No	Yes		Yes	No	Yes	Yes			Yes	Low risk of bias
Noah, 2013					Yes	No.	Yes				Moderate risk of bias
Noah, 2013				Yes		No.					Moderate risk of bias
	Ne	Vee								Van	
Obiri-Yeboah, 2019	No	Yes		Yes	Yes	No	Yes			Yes	Moderate risk of bias
Odemuyiwa, 2001											Moderate risk of bias
Okwesili, 2015		100			Yes	Yes	Yes	100			Low risk of bias
Ola, 2012	No	Yes	No	Yes	Yes	No	Yes	Yes	Unclear	Yes	Moderate risk of bias
Olubuvide, 1997	No	Yes		Yes	Yes	Yes	Yes			Yes	Low risk of bias
Olubuyide, 1997		Yes			Yes	Yes	Yes				Low risk of bias
Ozsoy, 2003					Yes	No				Yes	Low risk of bias
Ozsoy, 2003					Yes	No	Yes			Yes	Low risk of bias
Ozsoy, 2003						No				Yes	Low risk of bias
Palmer, 1983	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Low risk of bias
Panhotra, 2005	No	Yes	No	Yes	Yes	No	Yes	Yes	Unclear	Yes	Moderate risk of bias
Panhotra, 2005				Yes	Yes	No				Yes	Moderate risk of bias
Panis, 1986											Low risk of bias
Pattison, 1975				Yes	Yes					Yes	Low risk of bias
Pavlopoulou, 2009	No	Yes	No	Yes	Yes	Yes			No	Yes	Low risk of bias
						163	Yes	Yes		103	
Pećenková, 1978	No	Yes		Yes	No	No	Yes				Moderate risk of bias
		Yes	No	Yes	No		Yes	Yes	Unclear	Yes	
Pećenková, 1978 Pellissier, 2012	No	Yes Yes	No Yes	Yes Yes	No Yes	No No	Yes Yes	Yes Yes	Unclear Unclear	Yes Yes	Moderate risk of bias Low risk of bias
Pećenková, 1978 Pellissier, 2012 Pepe, 1986	No No	Yes Yes Yes	No Yes No	Yes Yes Yes	No Yes Yes	No No Yes	Yes Yes Yes	Yes Yes Yes	Unclear Unclear Unclear	Yes Yes Yes	Moderate risk of bias Low risk of bias Low risk of bias
Pećenková, 1978 Pellissier, 2012 Pepe, 1986 Platkov, 2003	No No No	Yes Yes Yes Yes	No Yes No No	Yes Yes Yes Yes	No Yes Yes Yes	No No Yes No	Yes Yes Yes Yes	Yes Yes Yes Yes	Unclear Unclear Unclear Unclear Unclear	Yes Yes Yes Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias
Pećenková, 1978 Pellissier, 2012 Pepe, 1986 Platkov, 2003 Qin, 2018	No No No No	Yes Yes Yes Yes Yes	No Yes No No No	Yes Yes Yes Yes Yes	No Yes Yes Yes Yes	No No Yes No No	Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes	Unclear Unclear Unclear Unclear Unclear No	Yes Yes Yes Yes Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias
Pećenková, 1978 Pellissier, 2012 Pepe, 1986 Platkov, 2003 Qin, 2018 Rapisarda, 2019	No No No No No	Yes Yes Yes Yes Yes Yes Yes	No Yes No No No Yes	Yes Yes Yes Yes Yes Yes Yes	No Yes Yes Yes	No No Yes No	Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes Yes	Unclear Unclear Unclear Unclear Unclear No Yes	Yes Yes Yes Yes Yes Yes Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Pećenková, 1978 Pellissier, 2012 Pepe, 1986 Platkov, 2003 Qin, 2018	No No No No No	Yes Yes Yes Yes Yes	No Yes No No No No Yes Yes	Yes Yes Yes Yes Yes	No Yes Yes Yes Yes	No No Yes No No	Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes Yes Yes Yes	Unclear Unclear Unclear Unclear Unclear No Yes	Yes Yes Yes Yes Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias
Pećenková, 1978 Pellissier, 2012 Pepe, 1986 Platkov, 2003 Qin, 2018 Rapisarda, 2019	No No No No No	Yes Yes Yes Yes Yes Yes Yes	No Yes No No No No Yes Yes	Yes Yes Yes Yes Yes Yes Yes Yes Yes	No Yes Yes Yes Yes Yes	No No Yes No	Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes Yes Yes Yes	Unclear Unclear Unclear Unclear Unclear No Yes Yes	Yes Yes Yes Yes Yes Yes Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Pedenková, 1978 Pellissier, 2012 Pepe, 1986 Platkov, 2003 Qin, 2018 Rapisarda, 2019 Rabsarda, 2019 Rehman, 1996	No N	Yes	No Yes No No No Vo Yes Yes	Yes	No Yes	No No Yes No No No No No No No No No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear No Yes Yes Unclear	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias
Pećenková, 1978 Pellissier, 2012 Pepe, 1986 Piatkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reingold, 1988	No N	Yes	No Yes No No No No Yes Yes Yes No	Yes	No Yes Yes Yes Yes Yes Yes Yes No	No No Yes No No No No No No No Yes	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Vnclear Unclear Vnc Ves Ves Unclear Ves Ves Unclear Ves	Yes	Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Pečenková, 1978 Pellissier, 2012 Pepe, 1986 Platkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reingold, 1988 Romieu, 1989	No N	Yes	No Yes No No No No Yes Yes No No No	Yes	No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear No Yes Unclear Yes Unclear Yes Unclear	Yes	Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias
Pećenková, 1978 Pellissier, 2012 Pepe, 1986 Platkov, 2003 Gin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reingold, 1988 Romieu, 1989 Rybacki, 2013	No N	Yes	No	Yes	No Yes Yes Yes Yes Yes Yes Yes No Yes No No	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear No No Yes Yes Unclear Yes Unclear Yes Unclear	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias
Pečenková, 1978 Pellssier, 2012 Pepe, 1986 Platkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reinqold, 1988 Romieu, 1989 Rybacki, 2013 Saberifirozi, 2006	No N	Yes	No	Yes	No Yes Yes Yes Yes Yes Yes Yes Yes No Yes No Yes No Yes	No No Yes No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear No Ves Yes Unclear Ves Unclear Yes Unclear Yes Unclear Yes	Yes	Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias
Pećenková, 1978 Pellissier, 2012 Pepe, 1986 Platkov, 2003 Gin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reimold, 1988 Romieu, 1989 Rybacki, 2013 Saberifirozzi, 2006 Saç, 2019	NO N	Yes	No	Yes	No Yes Yes Yes Yes Yes Yes Yes No Yes No Yes No Yes No Yes	No N	Yes Yes Yes Yes Yes Yes Yes Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Vno No No Yes Yes Yes Unclear Yes Unclear Yes Unclear Yes Yes Yes Yes Yes	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Pečenková, 1978 Pelissier, 2012 Pepe, 1986 Piatkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reinodd, 1988 Romieu, 1989 Rvbacki, 2013 Saberifirozi, 2006 Saç, 2019 Sac, 2019	No N	Yes	No	Yes	No Yes Yes Yes Yes Yes Yes Yes No Yes No Yes No Yes No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear No No Yes Unclear Yes Unclear Yes Unclear Yes Unclear Yes Ves Ves Ves Ves Ves Ves	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Pećenková, 1978 Pellissier, 2012 Pepe, 1986 Platkov, 2003 Gin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reimold, 1988 Romieu, 1989 Rybacki, 2013 Saberifirozzi, 2006 Saç, 2019	NO N	Yes	No	Yes	No Yes Yes Yes Yes Yes Yes Yes No Yes No Yes No Yes No Yes	No N	Yes Yes Yes Yes Yes Yes Yes Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear No No Yes Unclear Yes Unclear Yes Unclear Yes Unclear Yes Ves Ves Ves Ves Ves Ves	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Pećenková, 1978 Pedlissier, 2012 Pepe, 1986 Pilatkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reimold, 1988 Romieu, 1989 Rybacki, 2013 Saberfirioozi, 2006 Sac, 2019 Sac, 2019 Sac, 2019	NO N	Yes	No	Yes	No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear No Yes Yes Yes Yes Unclear Yes Unclear Yes Unclear Yes Yes Yes Yes Yes Yes Yes Yes	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Pećenková, 1978 Pelissier, 2012 Pepe, 1986 Piatkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reimoki, 1988 Romieu, 1989 Rybacki, 2013 Saberifirozi, 2016 Sac, 2019 Sac, 2019 Sac, 2019 Sac, 2019 Sac, 2019	NO N	Yes	No	Yes	No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear No No Yes Yes Unclear Yes Unclear Yes Unclear Yes Unclear Yes Ves Yes Ves Yes Yes No	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Pećenková, 1978 Pedlisster, 2012 Pepe, 1986 Pilatkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reimold, 1988 Romieu, 1989 Rybacki, 2013 Saberfiroozi, 2006 Sac, 2019	NO N	Yes	No	Yes	No Yes Yes Yes Yes Yes Yes Yes No No Yes No Yes No Yes Yes No Yes Yes Yes Yes Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear Ves Ves Ves Ves Ves Unclear Ves Unclear Ves Unclear Ves	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias
Pećenková. 1978 Pedlisster. 2012 Pepe. 1986 Platkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reimold, 1988 Romieu, 1989 Rybacki, 2013 Saberifirozzi, 2006 Sac, 2019 Sac	No N	Yes	No	Yes	No Yes Yes Yes Yes Yes Yes Yes Yes No No Yes No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Vno No Yes Yes Unclear Yes No No Yes Yes Yes Yes Yes	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias
Pećenková, 1978 Pedissier, 2012 Pepe, 1986 Pilatkov, 2003 Gin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reimold, 1988 Romieu, 1989 Rybacki, 2013 Saberifirozzi, 2006 Sac, 2019	NO N	Yes	No	Yes	No Yes Yes Yes Yes Yes Yes Yes Yes Yes No Yes No Yes Yes No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear Ves Ves Ves Ves Ves Unclear Ves Unclear Ves Unclear Ves	Yes	Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Pećenková. 1978 Pedlissier. 2012 Pepe. 1986 Platkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reimgold, 1988 Romieu, 1989 Rybacki, 2013 Saberifirozzi, 2006 Sac, 2019 Sac, 2019 Sac, 2019 Sac, 2019 Sac, 2019 Sac, 2019 Sachetto, 2013 Sangfelt, 2008	No N	Yes	No	Yes	No Yes Yes Yes Yes Yes Yes Yes Yes Yes No Yes No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear Voo No Yes Yes Unclear Yes No Yes No No	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias
Pećenková, 1978 Pedissier, 2012 Pepe, 1986 Pilatkov, 2003 Gin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reimodi, 1988 Romieu, 1989 Rybacki, 2013 Saberifirozzi, 2006 Sac, 2019	NO N	Yes	No	Yes	No Yes Yes Yes Yes Yes Yes Yes No No Yes No Yes No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear Vos	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Pećenková. 1978 Pedlissier. 2012 Pepe. 1986 Platkov. 2003 Qin, 2018 Rapisarda. 2019 Rapisarda. 2019 Rapisarda. 2019 Rehman. 1996 Reimodi. 1988 Romieu. 1989 Rybacki. 2013 Saberifirozzi. 2006 Sac. 2019 Sac. 2016	No N	Yes	No	Yes	No Yes Yes Yes Yes Yes Yes Yes Yes No Yes No Yes No Yes Se Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Volume Vol	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias
Pećenková, 1978 Pedissier, 2012 Pepe, 1986 Pilatkov, 2003 Gin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reimodi, 1988 Romieu, 1989 Rybacki, 2013 Saberifirozzi, 2006 Sac, 2019	No N	Yes	No	Yes	No Yes Yes Yes Yes Yes Yes Yes No No Yes No Yes No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Volume Vol	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Pećenková, 1978 Pedissier, 2012 Pepe, 1986 Pilatkov, 2003 Qin, 2018 Rapisarda, 2019 Sac, 2016 Saqib, 2016	NO N	Yes	No	Yes	No Yes Yes Yes Yes Yes Yes Yes Yes No No Yes No Yes No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear Vos	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias
Pećenková. 1978 Pedlissier. 2012 Pepe. 1986 Platkov. 2003 Qin, 2018 Rapisarda. 2019 Rapisarda. 2019 Rapisarda. 2019 Rehman. 1996 Reimodi. 1988 Romieu. 1989 Rybacki. 2013 Saberfiriozzi. 2006 Sac. 2019 Sac. 2016 Sac. 2	No N	Yes	No	Yes	No Yes Yes Yes Yes Yes Yes Yes Yes Yes No Yes No Yes No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear Volume Vo	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias
Pećenková, 1978 Pedissier, 2012 Pepe, 1986 Platkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2013 Rapisarda, 2013 Rapisarda, 2013 Saberificozi, 2013 Sac, 2019 Sac, 2016 Saqib, 2016	No N	Yes	No	Yes	No Yes Yes Yes Yes Yes Yes Yes Yes No No Yes No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear No No Yes Yes Unclear Yes No	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias
Pećenková, 1978 Pedissier, 2012 Pepe, 1986 Platkov, 2003 Gin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reimold, 1988 Romieu, 1989 Rybacki, 2013 Saberifirozzi, 2006 Sac, 2019 Sac, 2016 Sac, 20	No N	Yes	No	Yes	No Yes Yes Yes Yes Yes Yes Yes No Yes No Yes No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear Vno No Yes Yes Yes Unclear Yes Unclear Yes Unclear Yes Unclear Yes No Yes Yes Unclear Yes Unclear Yes	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias
Pećenková, 1978 Pedissier, 2012 Pepe, 1986 Pellissier, 2012 Pepe, 1986 Piatkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rapisarda, 2019 Rapisarda, 2019 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Rehnool, 1988 Romieu, 1989 Rybacki, 2013 Saberificozi, 2006 Sac, 2019 Sac, 2016 Saqib, 2016 Sarwar, 2008 Sarwar, 2007 Sarwar, 2007 Sarwar, 2008	NO N	Yes	No	Yes	No Yes Yes Yes Yes Yes Yes Yes Yes No No Yes No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear Vos	Yes Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias
Pećenková, 1978 Pedissier, 2012 Pepe, 1986 Pilatkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reimold, 1988 Romieu, 1989 Rybacki, 2013 Saberifirozzi, 2006 Sac, 2019 Sac, 2016 Sac, 2016 Sac, 2016 Sac, 2016 Sac, 2016 Sac, 2016 Sac, 2018	NO N	Yes	No	Yes	No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear Vno No Yes Yes Yes Unclear Yes Unclear Yes Unclear Yes Unclear Yes No	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Pećenková, 1978 Pedesker, 2012 Pepe, 1986 Pellissier, 2012 Pepe, 1986 Piatkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rapisarda, 2019 Rapisarda, 2019 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reinqold, 1988 Romieu, 1989 Rybacki, 2013 Saberificozi, 2006 Sac, 2019 Sac, 2016 Saqib, 2016 Saqib, 2016 Saqib, 2016 Saqib, 2016 Saqib, 2016 Saqib, 2016 Sarwar, 2008 Sarwar, 2018	No N	Yes	No	Yes	No Yes No Yes No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear No No Yes Yes Unclear Yes No	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias
Pećenková, 1978 Pedissier, 2012 Pepe, 1986 Pilatkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reimold, 1988 Romieu, 1989 Rybacki, 2013 Saberifirozzi, 2006 Sac, 2019 Sac, 2016 Sac, 2016 Sac, 2016 Sac, 2016 Sac, 2016 Sac, 2016 Sac, 2018	NO N	Yes	No	Yes	No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear No No Yes Yes Unclear Yes Unclear Yes Unclear Yes Unclear Yes Unclear Yes Unclear Yes No	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Pećenková, 1978 Pedlissier, 2012 Pepe, 1986 Pilatkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reingold, 1988 Romieu, 1989 Rybacki, 2013 Saberfiroczi, 2006 Sac, 2019 Sac, 2016 Sac, 2018 Sac, 2018 Shabanah, 2019 Shab, 2018 Shao, 2018	No N	Yes	No	Yes	No Yes No Yes No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear Unclear Unclear Vnc Ves Ves Ves Unclear Ves Unclear Ves Unclear Ves	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias
Pećenková, 1978 Pedesková, 1978 Pellissier, 2012 Pepe, 1986 Pilatkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2013 Saberificozi, 2013 Saberificozi, 2013 Sac, 2019 Sac, 2016 Sangleti, 2006 Sangleti, 2006 Sangleti, 2016 Sagib, 2018 Shab, 2018 Shab, 2018	No N	Yes	No	Yes	No Yes No Yes No Yes	No N	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear No No Yes Yes Unclear Yes Yes Yes Yes Yes Unclear Yes Unclear Yes Yes Yes Yes Yes Yes Yes Yes Yes Unclear Unclear Unclear Unclear Unclear Unclear Unclear Ves Yes	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias
Pećenková, 1978 Pedissier, 2012 Pepe, 1986 Pilatkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reimold, 1988 Romieu, 1989 Rybacki, 2013 Saberfiriozzi, 2016 Sac, 2019 Sac, 2016 Sac, 2018 Sac, 2018 Sanda, 2018 Shao, 2018	NO N	Yes	No	Yes	No Yes No Yes No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear Volume Vo	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Pećenková. 1978 Pedissier. 2012 Pepe. 1986 Platkov. 2003 Qin. 2018 Rapisarda. 2019 Rapisarda. 2019 Rapisarda. 2019 Rapisarda. 2019 Rehman. 1996 Reimodol. 1988 Romieu. 1989 Rybacki. 2013 Saberifirozzi. 2006 Sac. 2019 Sac. 2018 Sanglett. 2008 Savar. 2018 Sand. 2016 Sand. 2016 Sand. 2016 Sand. 2016 Shabanah. 2019 Shab. 2016 Shab. 2016 Shab. 2016 Shab. 2016 Shab. 2016 Shab. 2016 Shab. 2018 Shab. 2018 Shab. 2018 Shabarah. 2019 Shab. 2018 Shabarah. 2019 Shabarah. 2018 Shabarah. 2019 Shabarah. 2018 Shabarah. 2018 Shabarah. 2018 Shabarah. 2018	No N	Yes	No	Yes	No Yes	No No Yes No	Yes	Yes Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear Voo No Ves Ves Ves Unclear Ves Unclear Ves Unclear Ves Unclear Ves Unclear Ves	Yes Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias
Pećenková, 1978 Pedesker, 2012 Pepe, 1986 Pellisster, 2012 Pepe, 1986 Pitatkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reimodi, 1988 Romieu, 1989 Rybacki, 2013 Saberfiricozi, 2006 Sac, 2019 Sac, 2016 Sac, 2018 Shabanah, 2019 Shab, 2018 Shao, 2018 Shao, 2018 Shao, 2018 Shao, 2018 Shao, 2018 Shair, 2006 Shidrawi, 2004 Shim, 2016 Shidrawi, 2004 Shim, 2016 Shidrawi, 2004 Shim, 2016	NO N	Yes	No	Yas Yas Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye	No Yes No Yes No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear No Yes Yes Yes Yes Unclear Yes Unclear Yes Unclear Yes Unclear Yes No	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Pećenková. 1978 Pedesková. 1978 Pellissier. 2012 Pepe. 1986 Platkov. 2003 Qin, 2018 Rapisarda. 2019 Rapisarda. 2019 Rapisarda. 2019 Rehman. 1996 Reimodi. 1988 Romieu. 1989 Rybacki. 2013 Saberfiricozi, 2006 Sac, 2019 Sacy 2018 Sacy 2018 Shabanah, 2019 Shab, 2018 Shao, 2018 Shao, 2018 Shao, 2018 Shao, 2018 Shao, 2018 Shidrawi, 2004 Shidrawi, 2004 Shidrawi, 2004 Shidrawi, 2004 Shidrawi, 2004 Shidrawi, 2004 Shidrawi, 2006 Shim, 2011 Shin, 2006	No N	Yes	No	Yes	No Yes	No No Yes No	Yes	Yes Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear Volume Vo	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Pećenková, 1978 Pedesker, 2012 Pepe, 1986 Pellisster, 2012 Pepe, 1986 Pitatkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reimodi, 1988 Romieu, 1989 Rybacki, 2013 Saberfiricozi, 2006 Sac, 2019 Sac, 2016 Sac, 2018 Shabanah, 2019 Shab, 2018 Shao, 2018 Shao, 2018 Shao, 2018 Shao, 2018 Shao, 2018 Shair, 2006 Shidrawi, 2004 Shim, 2016 Shidrawi, 2004 Shim, 2016 Shidrawi, 2004 Shim, 2016	No N	Yes	No	Yes	No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear Volume Vo	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias
Pećenková, 1978 Pedenková, 1978 Pellisster, 2012 Pepe, 1986 Pilatkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reimodi, 1988 Romieu, 1989 Rybacki, 2013 Saberifirozzi, 2006 Sac, 2019 Sangfelt, 2008 Sangfelt, 2008 Sangfelt, 2008 Sangfelt, 2008 Sangrelt, 2008 Sangrelt, 2008 Savage, 1984 Shabanah, 2019 Shah, 2016 Shab, 2016 Shab, 2018 Shidrawi, 2006 Shini, 2006	NO N	Yes	No	Yes	No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear Ves Ves Ves Ves Ves Unclear Ves	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Pećenková. 1978 Pedesker. 2012 Pepe. 1986 Pellissier. 2012 Pepe. 1986 Pitatkov. 2003 Gin, 2018 Rapisarda. 2019 Rapisarda. 2019 Rapisarda. 2019 Rehman. 1996 Remodi. 1988 Romieu. 1989 Rybacki. 2013 Saberifirozzi. 2006 Sac. 2019 Sac. 2018 Sac. 2018 Shabanah. 2019 Shah. 2018 Shao. 2016 Shin. 2006 Shin. 2006 Shin. 2006 Shin. 2006	No N	Yes	No	Yes	No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear Unclear Unclear Volume	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Pećenková, 1978 Pedenková, 1978 Pedlissier, 2012 Pepe, 1986 Pilatkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reimodi, 1988 Romieu, 1989 Rybacki, 2013 Saberifirozzi, 2006 Sac, 2019 Sangfelt, 2008 Sangfelt, 2008 Sangfelt, 2008 Sangtelt, 2016 Saqib, 2016 Saqib, 2016 Saqib, 2016 Saqib, 2016 Saqib, 2016 Saqib, 2016 Sanyar, 2008 Sarvar, 2018 Shabanah, 2019 Shab, 2018 Shidrawi, 2006 Shin, 2006 Shin, 2006 Shin, 2006	NO N	Yes	No	Yes	No Yes Yes Yes Yes Yes Yes Yes Yes No No Yes No Yes No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear Ves Ves Ves Ves Unclear Ves Unclear Ves	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias
Pećenková. 1978 Pedesková. 1978 Pellissier. 2012 Pepe. 1986 Pitatkov. 2003 Gin, 2018 Rapisarda. 2019 Rapisarda. 2019 Rapisarda. 2019 Rehman. 1996 Reimodi. 1988 Romieu. 1989 Rybacki. 2013 Saberifiroczi. 2006 Sac. 2019 Sac. 2018 Sanda. 2016 Sanwar. 2008 Savage. 1984 Shabanah. 2017 Shab. 2018 Shab. 2016 Shin. 2006 Shin. 2006 Shin. 2006 Shin. 2006 Shin. 2006 Shin. 2006	No N	Yes	No N	Yes	No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear Unclear Unclear Ves Ves Ves Ves Unclear Ves Unclear Ves	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Pecenková, 1978 Pedenková, 1978 Pellissier, 2012 Pepe, 1986 Pilatkov, 2003 Gin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reimadi, 1988 Romieu, 1989 Rwbacki, 2013 Saberifirozzi, 2006 Sac, 2019 Sanqfelt, 2008 Sanqfelt, 2008 Sanqfelt, 2008 Sandra, 2008 Sandra, 2008 Sarvar, 2016 Sarvar, 2017 Shab, 2017 Shab, 2017 Shab, 2018 Shab, 2006 Shini, 2006	NO N	Yes	No	Yes	No Yes No Yes No Yes No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear Unclear Unclear Ves Ves Ves Ves Unclear Ves Unclear Ves Unclear Ves	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias
Pećenková, 1978 Pedesker, 2012 Pepe, 1986 Pellissier, 2012 Pepe, 1986 Pitatkov, 2003 Gin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reimold, 1988 Romieu, 1989 Rybacki, 2013 Saberifirozzi, 2006 Sac, 2019 Sach, 2016 Sagub, 2016 Sanwar, 2008 Savage, 1984 Shabanah, 2017 Shab, 2018 Shab, 2006	No N	Yes	No N	Yes	No Yes	No No Yes No	Yes	Yes	Unclear Ves Ves Ves Ves Unclear Ves Unclear Ves	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Pecenková, 1978 Pedenková, 1978 Pellissier, 2012 Pepe, 1986 Pilatkov, 2003 Gin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reimadi, 1988 Romieu, 1989 Rwbacki, 2013 Saberifirozzi, 2006 Sac, 2019 Sanqfelt, 2008 Sanqfelt, 2008 Sanqfelt, 2008 Sandra, 2008 Sandra, 2008 Sarvar, 2016 Sarvar, 2017 Shab, 2017 Shab, 2017 Shab, 2018 Shab, 2006 Shini, 2006	No N	Yes	No N	Yes	No Yes No Yes No Yes No Yes	No No Yes No	Yes	Yes	Unclear Ves Ves Ves Ves Unclear Ves Unclear Ves	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias
Pećenková, 1978 Pedesker, 2012 Pepe, 1986 Pellissier, 2012 Pepe, 1986 Pitatkov, 2003 Gin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reimold, 1988 Romieu, 1989 Rybacki, 2013 Saberifirozzi, 2006 Sac, 2019 Sach, 2016 Sagub, 2016 Sanwar, 2008 Savage, 1984 Shabanah, 2017 Shab, 2018 Shab, 2006	No N	Yes	No N	Yes	No Yes No Yes No Yes No Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear Unclear Unclear Ves	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Pećenková, 1978 Pedesková, 1978 Pellissier, 2012 Pepe, 1986 Pilatkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rehman, 1996 Reingold, 1988 Romieu, 1989 Rybacki, 2013 Saberifirozzi, 2006 Sac, 2019 Sac, 2018 Sanda, 2016 Sagib, 2016 Sagib, 2016 Sagib, 2016 Sagib, 2016 Sagib, 2016 Sarwar, 2008 Savage, 1984 Shabanah, 2019 Shah, 2017 Shab, 2018 Shabanah, 2019 Shab, 2018 Sha	No N	Yes	No N	Yes	No Yes	No No Yes No	Yes	Yes	Unclear Ves Ves Ves Ves Ves Unclear Ves	Yes	Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Pećenková, 1978 Pedesková, 1978 Pedlissier, 2012 Pepe, 1986 Pilatkov, 2003 Qin, 2018 Rapisarda, 2019 Rapisarda, 2019 Rapisarda, 2019 Rapisarda, 2019 Rapisarda, 2019 Rapisarda, 2019 Rapisarda, 1988 Romieu, 1988 Romieu, 1989 Romieu, 1989 Rybacki, 2013 Saberificozi, 2006 Sac, 2019 Sac, 2018 Sandjel, 2016 Saqib, 2016 Saqib, 2016 Saqib, 2016 Saqib, 2016 Saqib, 2016 Sanavar, 2008 Sarvar, 2008 Shap, 2018 Shap, 2018 Shap, 2018 Shap, 2018 Shap, 2006 Shin, 2006	No N	Yes	No	Yes	No Yes No Yes No Yes Yes	No No Yes No	Yes	Yes	Unclear Unclear Unclear Unclear Unclear Unclear Unclear Unclear Unclear Ves	Yes	Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias

The second second	1		C.		r	r					
Singh, 2010				Yes		No	Yes				Moderate risk of bias
Singh, 2010	No	Yes	No	Yes	Yes	No	Yes	Yes	Unclear		Moderate risk of bias
Singh, 2010	No	Yes	No	Yes	Yes	No	Yes	Yes	Unclear	Yes	Moderate risk of bias
Skinhøi, 1984	No	Yes	Yes	Yes	Yes	No	Yes				Low risk of bias
Skinhøj, 1984	No	Yes		Yes	Yes	No	Yes			Yes	Low risk of bias
		res	res								LOW IISK OF DIAS
Slusarczyk, 2012	No			Yes	Yes	No	Yes			Yes	Moderate risk of bias
Smith, 1976	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Low risk of bias
Smith, 1976	No	Yes	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Low risk of bias
Smith, 1987		Yes	No	Yes	No	Yes	Yes	Yes	Unclear	Yes	Moderate risk of bias
Snydman, 1984	No	Yes		Yes	No	Yes	Yes	Yes	Unclear		Moderate risk of bias
		Yes					Yes				
Sondlane, 2016	No			Yes	No	No					Moderate risk of bias
Sondlane, 2016	No	Yes	No	Yes	No	No	Yes	Yes	Yes	Yes	Moderate risk of bias
Song, 1999	No	Yes	No	Yes	No	No	Yes	Yes	No	Yes	Moderate risk of bias
Spada, 2016	No	Yes		Yes	No	No	Yes				Moderate risk of bias
Srichomkwum, 2009		Yes			No	No	Yes				Moderate risk of bias
Storch, 1985	No			Yes	No	No	Yes				Moderate risk of bias
Storch, 1985	No	Yes	No	Yes	No	No	Yes	Yes	Unclear	Yes	Moderate risk of bias
Storch, 1985	No	Yes	No	Yes	No	No	Yes	Yes	Unclear	Yes	Moderate risk of bias
Storch, 1985	No	Yes	No	Yes	No	No	Yes	Yes	Unclear	Yes	Moderate risk of bias
Storch, 1985				Yes	No	No				Yes	Moderate risk of bias
Storch, 1985	No	Yes		Yes	No	No	Yes	Yes	Unclear	Yes	Moderate risk of bias
Storch, 1985	No	Yes	No	Yes	No	No	Yes	Yes	Unclear	Yes	Moderate risk of bias
Struve , 1992	No	Yes	No	Yes	No	No	Yes	Yes	Unclear	Yes	Moderate risk of bias
Sukriti, 2008	No	Yes		Yes	Yes	No	Yes			Yes	Low risk of bias
Sukriti, 2008						No					Low risk of bias
Taishete, 2016						No	Yes				Moderate risk of bias
Taishete, 2016	No			Yes	Yes	No		Yes	Unclear		Moderate risk of bias
Taishete, 2016	No	Yes		Yes	Yes	No	Yes			Yes	Moderate risk of bias
Tan. 1992					Yes	Yes	Yes			Yes	Low risk of bias
Tan, 1992				Yes	Yes	Yes				Yes	Low risk of bias
Tan, 1992	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Low risk of bias
Tan, 1992				Yes	Yes	Yes				Yes	Low risk of bias
Tan. 1992					Yes	Yes	Yes				Low risk of bias
		100	110	100			100		100		
Tan, 1992	No			Yes	Yes	Yes	Yes			Yes	Low risk of bias
Tan, 1992	No	Yes		Yes	Yes	Yes	Yes			Yes	Low risk of bias
Tatsilong, 2016	No	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Moderate risk of bias
Tatsilong, 2016	No	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Moderate risk of bias
Tataliana 2010			NO.								
Tatsilong, 2016	No	Yes		Yes	Yes	No	Yes				Moderate risk of bias
Tatsilong, 2016	No	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Moderate risk of bias
Tatsilong, 2016	No	Yes	No	Yes	Yes	No	Yes	Yes	No	Yes	Moderate risk of bias
Taylor, 1991	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Unclear	Yes	Low risk of bias
T 4004											
Taylor, 1991				Yes	Yes	Yes				Yes	Low risk of bias
Taylor, 1991					Yes	Yes					Low risk of bias
Taylor, 1991	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Unclear	Yes	Low risk of bias
Toules 1001											
		Vac	No	Vac	Vac	Vac	Vac	Vac	Unclear	Vac	Low rick of bige
Taylor, 1991	No			Yes	Yes	Yes	Yes			Yes	Low risk of bias
Techasathit, 2005	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Low risk of bias
Techasathit, 2005 Techasathit, 2005	No No	Yes Yes	No No	Yes Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	No No	Yes Yes	Low risk of bias Low risk of bias
Techasathit, 2005	No	Yes Yes	No No	Yes	Yes Yes	Yes Yes	Yes Yes	Yes Yes	No No	Yes Yes	Low risk of bias Low risk of bias
Techasathit, 2005 Techasathit, 2005 Techasathit, 2005	No No No	Yes Yes Yes	No No No	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	Yes Yes Yes	No No No	Yes Yes Yes	Low risk of bias Low risk of bias Low risk of bias
Techasathit, 2005 Techasathit, 2005 Techasathit, 2005 Thomas, 1993	No No No No	Yes Yes Yes Yes	No No No No	Yes Yes Yes Yes	Yes Yes Yes Yes	Yes Yes Yes Yes	Yes Yes Yes Yes	Yes Yes Yes Yes	No No No No	Yes Yes Yes Yes	Low risk of bias
Techasathit, 2005 Techasathit, 2005 Techasathit, 2005 Thomas, 1993 Tong, 1987	No No No No No	Yes Yes Yes Yes Yes	No No No No No	Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes	No No No No No	Yes Yes Yes Yes Yes	Low risk of bias
Techasathit, 2005 Techasathit, 2005 Techasathit, 2005 Thomas, 1993 Tong, 1987 Tong, 1988	No No No No No	Yes Yes Yes Yes Yes Yes Yes	No No No No No No	Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes Yes Yes	No No No No No Unclear	Yes Yes Yes Yes Yes Yes Yes	Low risk of bias
Techasathit, 2005 Techasathit, 2005 Techasathit, 2005 Thomas, 1993 Tong, 1987	No No No No No	Yes Yes Yes Yes Yes	No No No No No No	Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes Yes	No No No No No Unclear	Yes Yes Yes Yes Yes	Low risk of bias
Techasathit, 2005 Techasathit, 2005 Techasathit, 2005 Thomas, 1993 Tong, 1987 Tong, 1988	No No No No No	Yes Yes Yes Yes Yes Yes Yes	No No No No No No Vo Yes	Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes Yes	Yes	No No No No Unclear Yes	Yes Yes Yes Yes Yes Yes Yes	Low risk of bias
Techasathit, 2005 Techasathit, 2005 Techasathit, 2005 Thomas, 1993 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012	No N	Yes	No No No No No No No Yes Yes	Yes	Yes	Yes	Yes	Yes	No No No No No Unclear Yes Yes	Yes	Low risk of bias
Techasathit, 2005 Techasathit, 2005 Techasathit, 2005 Techasathit, 2005 Thomas, 1993 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topuridze, 2010	No N	Yes	No No No No No No No No Yes Yes	Yes	Yes	Yes	Yes	Yes	No No No No No Unclear Yes Yes	Yes	Low risk of bias
Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Thomas, 1993 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2010 Tufa, 2016	No N	Yes	No No No No No No No No No Yes Yes Yes No	Yes	Yes	Yes	Yes	Yes	No No No No No Unclear Yes Yes Yes	Yes	Low risk of bias
Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Thomas, 1993 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topundze, 2010 Tufa, 2016 Tufo, 2016	No N	Yes	No N	Yes	Yes Yes Yes Yes Yes Yes Yes Yes Yes No	Yes Yes Yes Yes Yes Yes Yes Yes Yes No	Yes	Yes	No No No No No No No Vo Unclear Yes Yes Yes Yes	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias
Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Thomas, 1993 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2010 Tufa, 2016	No N	Yes	No N	Yes	Yes	Yes	Yes	Yes	No No No No No No No Vo Unclear Yes Yes Yes Yes	Yes	Low risk of bias
Techasathi, 2005 Techasathi, 2005 Techasathi, 2005 Techasathi, 2005 Thomas, 1993 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2010 Tufa, 2016 Tufon, 2016 Tufon, 2016 Vardas, 2002	No N	Yes	No N	Yes	Yes Yes Yes Yes Yes Yes Yes Yes Yes No	Yes Yes Yes Yes Yes Yes Yes Yes Yes No	Yes	Yes	No No No No No No No Unclear Yes Yes Yes Yes	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias
Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Thomas, 1993 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topundze, 2010 Tufa, 2016 Tufa, 2016 Vardas, 2002 Vedeo, 2013	No N	Yes	No N	Yes	Yes Yes Yes Yes Yes Yes Yes Yes Yes No No No No	Yes Yes Yes Yes Yes Yes Yes Yes Yes No No No No	Yes Yes Yes Yes Yes Yes Yes Yes	Yes	No No No No No No No Vo Unclear Yes Yes Yes Unclear Yes	Yes	Low risk of bias Moderate risk of bias
Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Thomas, 1993 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2010 Tufu, 2016 Tufun, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017	No N	Yes	No N	Yes	Yes Yes Yes Yes Yes Yes Yes Yes No No No No No No Yes	Yes Yes Yes Yes Yes Yes Yes No No No No No	Yes	Yes	No N	Yes	Low risk of bias Moderate risk of bias
Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Tong, 1987 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topurdze, 2010 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017	No N	Yes	No N	Yes	Yes Yes Yes Yes Yes Yes Yes Yes Yes No No No No No Yes	Yes Yes Yes Yes Yes Yes Yes Yes Yes No No No No No No No	Yes	Yes	No No No No No No No Unclear Yes Yes Unclear Yes Unclear Yes	Yes	Low risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias
Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Thomas, 1993 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2016 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017	No N	Yes	No N	Yes	Yes Yes Yes Yes Yes Yes Yes Yes No No No No No Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes Yes No	Yes	Yes	No N	Yes	Low risk of bias Moderate risk of bias Low risk of bias
Techasatht, 2005 Tong, 1987 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topurdze, 2010 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997	No N	Yes	No N	Yes	Yes Yes Yes Yes Yes Yes Yes Yes Yes No No No No No Yes	Yes Yes Yes Yes Yes Yes Yes Yes Yes No No No No No No No	Yes	Yes	No N	Yes	Low risk of bias Moderate risk of bias Low risk of bias Low risk of bias Low risk of bias
Techasatht, 2005 Tong, 1987 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topurdze, 2010 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997	No N	Yes	No N	Yes	Yes Yes Yes Yes Yes Yes Yes Yes No No No No No Yes Yes Yes Yes	Yes Yes Yes Yes Yes Yes Yes No	Yes	Yes	No No No No No No Unclear Yes Yes Yes Unclear Yes	Yes	Low risk of bias Moderate risk of bias Low risk of bias
Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Thomas, 1993 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2010 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017	No N	Yes	No N	Yes	Yes	Yes Yes Yes Yes Yes Yes Yes Yes Yes No	Yes	Yes	No No No No No No Unclear Yes Yes Yes Yes Yes Yes Yes Yes Oncompany Yes No No	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Techasatht, 2005 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2010 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickiffe, 1978 Wickiffe, 1978	No N	Yes	No N	Yes	Yes	Yes	Yes	Yes	No No No No No No No Unclear Yes	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Thomas, 1993 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2010 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickliffe, 1978 Wijayadi, 2018	No	Yes	No N	Yes	Yes	Yes Yes Yes Yes Yes Yes Yes Yes Yes No	Yes	Yes	No No No No No No No Unclear Yes Yes Yes Yes Yes Yes Yes Unclear Yes Yes No No No No No No Yes	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Techasatht, 2005 Tong, 1987 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2010 Tufa, 2016 Tufon, 2010 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickiffe, 1978 Wijayadi, 2018 Wijayadi, 2018 Wijayadi, 2018 Wijayadi, 2018	No N	Yes	No N	Yes	Yes	Yes	Yes	Yes	No No No No No No No No No Unclear Yes Yes Yes Yes Yes Yes Yes Yes Yes No	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Thomas, 1993 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2010 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickliffe, 1978 Wijayadi, 2018	No	Yes	No N	Yes	Yes	Yes Yes Yes Yes Yes Yes Yes Yes Yes No	Yes	Yes	No No No No No No No No No Unclear Yes Yes Yes Yes Yes Yes Yes Yes Yes No	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Techasathi, 2005 Techasathi, 2005 Techasathi, 2005 Techasathi, 2005 Thomas, 1993 Tong, 1987 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2016 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickliffe, 1978 Wijayadi, 2018 Wijayadi, 1974	No	Yes	No N	Yes	Yes	Yes	Yes	Yes	No N	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Techasatht, 2005 Tong, 1987 Tong, 1987 Tong, 1987 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2012 Tuton, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Verso, 2017 Weiss, 1994 Wiranan, 1997 Wickiffe, 1978 Wijayadi, 2018 Wijayadi, 1974 Wijams, 1994 Windson, 1994	No N	Yes	No N	Yes	Yes	Yes	Yes	Yes	No No No No No No No No Unclear Yes Yes Yes Yes Yes Yes Yes Yes Yes No	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Techasathi, 2005 Techasathi, 2005 Techasathi, 2005 Techasathi, 2005 Thomas, 1993 Tong, 1987 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2016 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickliffe, 1978 Wijayadi, 2018 Wijayadi, 1984 Windsor, 1984 Windsor, 1984 Windsor, 1984 Woodfield, 1976	No N	Yes	No N	Yes	Yes	Yes	Yes	Yes	No No No No No No No No No Unclear Yes Yes Yes Yes Unclear Yes Unclear Yes No	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias
Techasathi, 2005 Tong, 1987 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topuridze, 2010 Tula, 2016 Tula, 2016 Tula, 2016 Tula, 2016 Tula, 2016 Tula, 2016 Tula, 2017 Verdeo, 2017 Verdeo, 2017 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickilfe, 1978 Willayadi, 2018 Willayadi, 2018 Willayadi, 2018 Willayadi, 2018 Willayadi, 1974 Willams, 1994 Wondfield, 1976 Yizengaw, 2018	No N	Yes	No N	Yes	Yes	Yes	Yes	Yes	No No No No No No No No Unclear Yes Yes Yes Yes Yes Yes Yes No	Yes Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias
Techasatht, 2005 Tong, 1987 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topudze, 2010 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickiffe, 1978 Wijayadt, 2018	No	Yes	No N	Yes	Yes	Yes Yes Yes Yes Yes Yes Yes Yes Yes No Yes Yes No	Yes	Yes	No No No No No No No No No Unclear Yes Yes Yes Yes Yes Yes Yes Unclear Yes Yes Yes Yes Yes Yes Yes Unclear Yes No	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Techasatht, 2005 Tong, 1987 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topudze, 2010 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickiffe, 1978 Wijayadt, 2018	No	Yes	No N	Yes	Yes	Yes	Yes	Yes	No No No No No No No No No Unclear Yes Yes Yes Yes Yes Yes Yes Unclear Yes Yes Yes Yes Yes Yes Yes Unclear Yes No	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias
Techasatht, 2005 Tong, 1987 Tong, 1987 Tong, 1987 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2016 Tufb, 2016 Tufb, 2016 Tufb, 2016 Tufb, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickiffe, 1978 Wijayadi, 2018 Wijayadi, 2018 Wijayadi, 2018 Wijayadi, 2018 Wijayadi, 2018 Wijayadi, 1974 Williams, 1984 Woodfield, 1976 Yizengaw, 2018 Yizengaw, 2018 Yizengaw, 2018	No N	Yes	No N	Yes	Yes	Yes	Yes	Yes	No No No No No No No No No Unclear Yes Yes Yes Yes Yes Yes Yes No	Yes Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Techasatht, 2005 Tong, 1987 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2010 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickliffe, 1978 Wilayadi, 2018 Vizengaw, 2018 Yzengaw, 2018 Yzengaw, 2018 Zayet, 2019	No	Yes	No N	Yes	Yes	Yes Yes Yes Yes Yes Yes Yes Yes Yes No	Yes	Yes	No No No No No No No Unclear Yes Yes Yes Yes Yes Yes Yes Unclear Yes Yes Unclear Yes Unclear Yes Yes No	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Techasatht, 2005 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topuridze, 2010 Tufs, 2016 Tufs, 2016 Tufs, 2016 Tufs, 2016 Tufs, 2016 Tufs, 2017 Verdeo, 2013 Verso, 2017 Verso, 2017 Verso, 2017 Werss, 1994 Werman, 1997 Wickillie, 1978 Wilayadd, 2018 Vizengaw, 2018 Yzengaw, 2018 Yzengaw, 2018 Zayet, 2019	No N	Yes	No N	Yes	Yes	Yes	Yes	Yes	No N	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Techasatht, 2005 Tong, 1987 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2010 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Vedes, 2017 Welss, 1994 Werman, 1997 Wickilfe, 1978 Wilayadt, 2018 Wilayadt, 2018 Wilayadt, 2018 Wilayadt, 2018 Wilayadt, 2018 Wilayadt, 1974 Williams, 1984 Woodfield, 1976 Yzengaw, 2018 Yzengaw, 2018 Yzengaw, 2018 Yzengaw, 2018 Zayet, 2019 Zayet, 2019 Zayet, 2019	No	Yes	No N	Yes	Yes	Yes	Yes	Yes	No No No No No No No Unclear Yes Yes Yes Yes Yes Yes Yes Unclear Yes Yes Unclear Yes Unclear Yes No	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Techasatht, 2005 Tong, 1987 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2010 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Vedes, 2017 Welss, 1994 Werman, 1997 Wickilfe, 1978 Wilayadt, 2018 Wilayadt, 2018 Wilayadt, 2018 Wilayadt, 2018 Wilayadt, 2018 Wilayadt, 1974 Williams, 1984 Woodfield, 1976 Yzengaw, 2018 Yzengaw, 2018 Yzengaw, 2018 Yzengaw, 2018 Zayet, 2019 Zayet, 2019 Zayet, 2019	No	Yes	No N	Yes	Yes	Yes	Yes	Yes	No No No No No No No Unclear Yes Yes Yes Yes Yes Yes Yes Unclear Yes Yes Unclear Yes Unclear Yes No	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Techasathi, 2005 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2016 Tufon, 2016 Tufon, 2016 Tufon, 2016 Tufon, 2016 Tufon, 2016 Vardos, 2012 Vedeo, 2013 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickilfe, 1978 Wijayadi, 2018 Wijayadi, 1974 Williams, 1994 Wondfield, 1976 Yizengaw, 2018 Yizengaw, 2018 Yizengaw, 2018 Zayet, 2019 Zayet, 2019 Zayet, 2019 Zayet, 2019 Zayet, 2019	No N	Yes	No N	Yes	Yes	Yes	Yes	Yes	No N	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Techasathi, 2005 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickiffe, 1978 Wijayadi, 2018 Vizengaw, 2018 Yzengaw, 2018 Yzengaw, 2018 Yzengaw, 2019 Zayet, 2019	No	Yes	No N	Yes	Yes	Yes	Yes	Yes	No No No No No No No No Unclear Yes Yes Yes Yes Yes Yes Yes No	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Techasathi, 2005 Techasathi, 2005 Techasathi, 2005 Techasathi, 2005 Thomas, 1993 Tong, 1987 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2016 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickliffe, 1978 Wijayadi, 2018 Vizengaw, 2018 Zavet, 2019 Zayet, 2019	No	Yes	No N	Yes	Yes	Yes	Yes	Yes	No N	Yes Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Moderater risk of bias
Techasatht, 2005 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2010 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickiffe, 1978 Wijayadi, 2018 Vijayadi, 2018 Vijayadi, 2018 Vijayadi, 2018 Zijayadi, 2019	No	Yes	No N	Yas Yas Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye	Yes	Yes	Yes	Yes	No No No No No No No No Unclear Yes Yes Yes Yes Yes Yes Yes No	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Techasathi, 2005 Techasathi, 2005 Techasathi, 2005 Techasathi, 2005 Thomas, 1993 Tong, 1987 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2016 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickliffe, 1978 Wijayadi, 2018 Vizengaw, 2018 Zavet, 2019 Zayet, 2019	No	Yes	No N	Yes	Yes	Yes	Yes	Yes	No No No No No No No No Unclear Yes Yes Yes Yes Yes Yes Yes No	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias Moderater risk of bias
Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Thomas, 1993 Tong, 1987 Tong, 1987 Tong, 1987 Tong, 2012 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2016 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickliffe, 1978 Wijayadd, 2018 Wijayadd, 2018 Wijayadd, 2018 Wijayadd, 2018 Wijayadd, 2018 Wijayadd, 1974 Wijayadd, 2018 Zigayadd, 1994 Zigayadd, 1994 Zigayadd, 2019 Zigyadd, 2019	No	Yes	No N	Yes	Yes	Yes	Yes	Yes	No N	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Techasatht, 2005 Techasatht, 2012 Topurdze, 2012 Topurdze, 2012 Topurdze, 2010 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickiffe, 1978 Wijayadi, 2018 Wijayadi, 2018 Wijayadi, 2018 Wijayadi, 2018 Wijayadi, 2018 Wijayadi, 2018 Vizengaw, 2018 Vizengaw, 2018 Vizengaw, 2018 Zayet, 2019	No	Yes	No N	Yes	Yes	Yes	Yes	Yes	No No No No No No No No Unclear Yes Yes Yes Yes Yes Yes Yes Yes No	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Thomas, 1993 Tong, 1987 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2010 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickliffe, 1978 Wilayadi, 2018 Williams, 1974 Williams, 1974 Williams, 1994 Williams, 1994 Winder, 1998 Williams, 1994 Winder, 1998 Yizengaw, 2018 Yizengaw, 2018 Yizengaw, 2018 Yizengaw, 2018 Yizengaw, 2018 Zayet, 2019	No	Yes	No N	Yes	Yes	Yes	Yes	Yes	No N	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Techasatht, 2005 Techasatht, 2012 Topurdze, 2012 Topurdze, 2012 Topurdze, 2010 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Welss, 1994 Werman, 1997 Wickilfe, 1978 Wijayadi, 2018 Vizengaw, 2018 Yizengaw, 2018 Yizengaw, 2018 Yizengaw, 2019 Zayet, 2019	No	Yes	No N	Yes	Yes	Yes	Yes	Yes	No No No No No No No No Unclear Yes Yes Yes Yes Yes Yes Yes Yes No	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Techasatht, 2005 Thomas, 1993 Tong, 1987 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2010 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickliffe, 1978 Wilayadi, 2018 Williams, 1974 Williams, 1974 Williams, 1994 Williams, 1994 Winder, 1998 Williams, 1994 Winder, 1998 Yizengaw, 2018 Yizengaw, 2018 Yizengaw, 2018 Yizengaw, 2018 Yizengaw, 2018 Zayet, 2019	No	Yes	No N	Yes	Yes	Yes	Yes	Yes	No No No No No No No No No Unclear Yes Yes Yes Yes Yes Yes Yes Yes Yes No	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Techasatht, 2005 Techasatht, 2012 Topurdze, 2012 Topurdze, 2012 Topurdze, 2010 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Welss, 1994 Werman, 1997 Wickilfe, 1978 Wijayadi, 2018 Vizengaw, 2018 Yizengaw, 2018 Yizengaw, 2018 Yizengaw, 2019 Zayet, 2019	No	Yes	No N	Yes	Yes	Yes	Yes	Yes	No N	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Techasatht, 2005 Techasatht, 2012 Topurdze, 2012 Topurdze, 2012 Topurdze, 2010 Tufa, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickiffe, 1978 Wijayadi, 2018 Vizengaw, 2018 Zengaw, 2018 Zengaw, 2018 Zengaw, 2019 Zayet, 2019	No	Yes	No N	Yes	Yes	Yes	Yes	Yes	No No No No No No No No No Unclear Yes Yes Yes Yes Yes Yes Yes Yes No	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Techasatht, 2005 Tong, 1987 Tong, 1987 Tong, 1987 Tong, 2012 Topka, 2012 Topka, 2012 Topka, 2012 Tufun, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickiffe, 1978 Wisayad, 2018 Wijayad, 2018 Vigengaw, 2018 Yizengaw, 2018 Yizengaw, 2018 Yizengaw, 2019 Zayet, 2019	No	Yes	No N	Yes	Yes	Yes	Yes	Yes	No N	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Techasathi, 2005 Techasathi, 2017 Tonn, 1987 Tonn, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2012 Vardea, 2010 Vardea, 2010 Vardea, 2010 Vardea, 2010 Vardea, 2010 Vardea, 2017 Veriso, 2017 Weiss, 1994 Werman, 1997 Wickiffe, 1978 Wijayadi, 2018 Wijayadi, 2018 Wijayadi, 2018 Wijayadi, 2018 Wijayadi, 2018 Wijayadi, 2018 Vizengaw, 2018 Yizengaw, 2018 Yizengaw, 2018 Yizengaw, 2018 Zayet, 2019	No	Yes	No N	Yes	Yes	Yes	Yes	Yes	No N	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Techasatht, 2005 Tong, 1987 Tong, 1987 Tong, 1987 Tong, 2012 Topka, 2012 Topka, 2012 Topka, 2012 Tufun, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickiffe, 1978 Wisayad, 2018 Wijayad, 2018 Vigengaw, 2018 Yizengaw, 2018 Yizengaw, 2018 Yizengaw, 2019 Zayet, 2019	No	Yes	No N	Yes	Yes	Yes	Yes	Yes	No Unclear Yes Yes Yes Yes Yes Yes No	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Techasatht, 2005 Tong, 1987 Tong, 1987 Tong, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2016 Vardas, 2002 Vedeo, 2013 Verso, 2017 Verso, 2017 Weiss, 1994 Werman, 1997 Wickliffe, 1978 Wilayadi, 2018 Viengaw, 2018 Tyzengaw, 2018 Tyzengaw, 2018 Tyzengaw, 2019 Zayet, 2019	No	Yes	No N	Yes	Yes	Yes	Yes	Yes	No Unclear Yes Yes Yes Yes Yes Yes No	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias
Techasathi, 2005 Techasathi, 2017 Tonn, 1987 Tonn, 1988 Topka, 2012 Topka, 2012 Topka, 2012 Topka, 2012 Vardea, 2010 Vardea, 2010 Vardea, 2010 Vardea, 2010 Vardea, 2010 Vardea, 2017 Veriso, 2017 Weiss, 1994 Werman, 1997 Wickiffe, 1978 Wijayadi, 2018 Wijayadi, 2018 Wijayadi, 2018 Wijayadi, 2018 Wijayadi, 2018 Wijayadi, 2018 Vizengaw, 2018 Yizengaw, 2018 Yizengaw, 2018 Yizengaw, 2018 Zayet, 2019	No	Yes	No N	Yes	Yes	Yes	Yes	Yes	No N	Yes	Low risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Moderate risk of bias Low risk of bias Moderate risk of bias

Zibara, 2010	No	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Moderate risk of bias
Zibara, 2010	No	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	Moderate risk of bias
Zuhaib Khan, 2016 Zuhaib Khan, 2016	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Low risk of bias
Zuhaib Khan, 2016	No	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Low risk of bias

Characteristics	N = 448	%
Year of publication; range	1970-2020	
Period of inclusion of participants; range	1964-2019	
Age (years); Median; IQR	34.6	[30.5-38.9]
%Male. range	[0.0-99.7]	
Study Design	, , , , , , , , , , , , , , , , , , ,	
Case control	3	0.7
Cohort (Baseline data)	6	1.3
Cross sectional	439	98.0
Sampling		
Non probabilistic	386	86.2
Probabilistic	62	13.8
Sampling method		
Consecutive sampling	377	84.2
Convenience sampling	7	1.6
Multistage sampling	1	0.2
Simple random sampling	44	9.8
Stratified sampling	19	4.2
Number of sites		
Monocenter	275	61.4
Multicenter	171	38.2
Unclear/ Not reported	2	0.5
Timing of data collection		
Prospetively	420	93.8
Retroprospectively	7	1.6
Retrospectively	21	4.7
Country		
Albania	3	0.7
Australia	2	0.5
Austria	1	0.2
Belize	1	0.2
Brazil	10	2.2
Bulgaria	1	0.2
Burkina Faso	1	0.2
Cameroon	16	3.6
Canada	7	1.6
China	1	0.2
Czech Republic	1	0.2
Democratic Republic of the Congo	1	0.2
Denmark	9	2.0
Egypt	11	2.5
Ethiopia	17	3.8
Fiji	5	1.1
France	3	0.7
Georgia	2	0.5
Germany	6	1.3

Characteristics	N = 448	%
Ghana	1	0.2
Greece	4	0.9
India	26	5.8
Indonesia	2	0.5
Iran	16	3.6
Israel	3	0.7
Italy	20	4.5
Jamaïca	1	0.2
Japan	7	1.6
Kenya	3	0.7
Libya	8	1.8
Malaysia	8	1.8
Mexico	2	0.5
Morocco	10	2.2
Multiple countries	1	0.2
Nepal	1	0.2
Netherlands	1	0.2
New Zealand	2	0.5
Niger	1	0.2
Nigeria	17	3.8
North Korea	8	1.8
Norway	2	0.5
Pakistan	14	3.1
Papua New Guinea	1	0.2
Poland	4	0.9
Portugal	1	0.2
Republic of the Congo	3	0.7
Romania	1	0.2
Rwanda	1	0.2
saudi arabia	3	0.7
Saudi arabia	2	0.5
Saudi Arabia	6	1.3
Senegal	1	0.2
Sierra Leone	3	0.7
South Africa	8	1.8
South Korea	2	0.5
Spain	2	0.5
Sudan	8	1.8
Sweden	5	1.1
Tanzania	6	1.3
Thailand	16	3.6
Thaïland	1	0.2
Togo	3	0.7
Tunisia	15	3.4
Turkey	12	2.7
Uganda	13	2.9
United Kingdom	6	1.3

Characteristics	N = 448	9/0
United States of America	68	15.2
Yemen	1	0.2
Country income level		
High-income economies	176	39.3
Low-income economies	49	10.9
Lower-middle income economies	125	27.9
Upper-middle-income economies	97	21.7
Unclear/ Not reported	1	0.2
WHO Region		
Africa	95	21.2
America	89	19.9
Eastern Mediterranean	93	20.8
Europe	88	19.6
South-East Asia	46	10.3
Western Pacific	36	8.0
Unclear/ Not reported	1	0.2
UNSD Region		
Caribbean	1	0.2
Central Africa	20	4.5
Central America	15	3.4
Central Asia	11	2.5
Eastern Africa	40	8.9
Eastern Asia	18	4.0
Eastern Europe	7	1.6
Northern Africa	52	11.6
Northern America	63	14.1
Northern Europe	21	4.7
Oceania	10	2.2
South America	10	2.2
Southeastern Asia	30	6.7
Southern Africa	8	1.8
Southern Asia	48	10.7
Southern Europe	30	6.7
West Africa	27	6.0
Western Asia	24	5.4
Western Europe	12	2.7
Unclear/ Not reported	1	0.2
UNSD Continent		
Africa	147	32.8
Americas	89	19.9
Asia	131	29.2
Europe	70	15.6
Oceania	10	2.2
Unclear/ Not reported	1	0.2
Recrutment setting		
Rural	14	3.1
Unclear/ Not reported	156	34.8

Characteristics	N = 448	%
Urban	212	47.3
Urban/rural	66	14.7
HCWs Classificiation		
HCWs not specified	172	38.4
Health associate professionals	47	10.5
Health management and support personnel	40	8.9
Health professionals	140	31.3
Other health service providers not elsewhere	34	7.6
classified		
Personal care workers in health services	15	3.4
Study population		
Administrative staff	39	8.7
Ambulance driver	2	0.5
Ambulance officer	1	0.2
Anaesthesia technician	1	0.2
Anaesthetists	6	1.3
Assistant nurse	3	0.7
Dental aide	1	0.2
Dental assistant	2	0.5
Dentist	23	5.1
Dentists	1	0.2
Emergency medical technician	2	0.5
HCWs not specified	171	38.2
Hospital pharmacist	4	0.9
Medical assistant	3	0.7
Medical doctor	17	3.8
Medical laboratory technician	35	7.8
Medical student intern, Hospital volunteer	34	7.6
Midwife	8	1.8
Nurse	48	10.7
Nursing aide	11	2.5
Patient care assistant	3	0.7
Physician	27	6.0
Radiology	1	0.2
Surgeons	5	1.1
Detection assay		
Agar gel diffusion, Complement fixation test	1	0.2
Agglutination test kits	7	1.6
Auszyme Assay	10	2.2
Chemiluminescent enzyme immunoassay	38	8.5
(CLEIA)		
Counter-immunoelectrophoresis test	1	0.2
Direct ELISA	126	28.1
Direct passive haemagglutination	1	0.2
Electro-chemiluminescence immunoassay (ECLIA)	7	1.6
Enzyme-linked fluorescence assay (ELFA)	6	1.3
Linzjine iniked indolescence assay (LLI II)		1.0

Characteristics	N = 448	%
Enzyme-linked fluorescence assay (ELFA),	5	1.1
Microparticle Enzyme Immunoassay (MEIA)		
Enzyme immunoassay (EIA)	48	10.7
Enzyme immunoassay (EIA),	2	0.5
Radioimmunoassay		
Haemagglutination techniques	1	0.2
Immunoassay kit	4	0.9
Immunochromatographic test	11	2.5
Immunodiffusion, countercurrent	1	0.2
electrophoresis		
Immunoelectroosmophoresis (IEOP)	1	0.2
Immunoenzymatic assay	10	2.2
Indirect ELISA	35	7.8
Lateral flow assay (LFA)	2	0.5
Microparticle direct chemiluminometric	3	0.7
immunoassay		
Microparticle Enzyme Immunoassay (MEIA)	13	2.9
Neutralisation Assay	1	0.2
Radioimmunoassay	80	17.9
Radioimmunoassay,	1	0.2
Immunoelectroosmophoresis, Neutralization test		
Rapid Diagnostic test	7	1.6
Reverse passive hemagglutination assay	4	0.9
Sandwich ELISA technique	3	0.7
Serological test	6	1.3
Solid-phase radioimmunoassay	2	0.5
Unclear/ Not reported	11	2.5
Target detected		
Ac anti-HBs (> 10 UI/l)	84	18.8
Ac anti-HBs + Ac anti- HBc	57	12.7
Ag HBe	3	0.7
Ag HBs	292	65.2
Ag HBs + IgM anti-HBc	12	2.7
Infection Status		
Acutely infected (Ag HBs + IgM anti-HBc +)	12	2.7
Current HBV infection (Ag HBe +)	3	0.7
Current HBV infection (Ag HBs +)	292	65.2
Immune due to natural infection (Ac anti-HBs +	57	12.7
Ac anti- HBc +)		400
Immunity against HBV [Ac anti-HBs (> 10 UI/l)]	84	18.8
Sample types		
Serum	435	97.1
Unclear/Not reported	13	2.9
Risk of bias		
Low risk of bias	169	37.7
Moderate risk of bias	279	62.3

Supplementary Table 7. Individual characteristics of included studies

										ementary Table 7. I	narviadar citarac	teristics of included studies					
Author Abbse 1985	Conse southered	Non-senhobiletis	Sampling method	Management	Timing of data collection C	Country United Kingdom	Study period Min/1983-Jun/1983	Mean or Median age (Years)	Male percentage	Recrutment setting	Risk of bias Moderate risk of biss	HCWs Classificiation	Study population HCWs not specified	Detection assay	Le getti, HRs & An getti, HRe	Infection Status Immune rise to natural infection (An anti-HRs ± 4n anti-HRs ±)	Sample types
Abdul Museib, 1924 Abdul Museib, 1924	Cross sectional Cross sectional	Non probabilistic	Consecutive sampling Consecutive sampling Consecutive sampling	Monocenter	Prospetively	Pakistan Pakistan	Unclear/ Not reported Unclear/ Not reported	Unclear/ Not reported Unclear/ Not reported	Unclear! Not reported	Urban	Moderate risk of biss	HCWs not specified Health management and support personnal HCWs not specified Health professionals	Administrative staff HCWs not specified	Steinot Listan Direct ELISA Direct ELISA Direct ELISA Direct ELISA	Ag HBs Ag HBs Ag HBs	Carrent HBV infection (Ag HBs +) Carrent HBV infection (Ag HBs +) Carrent HBV infection (Ag HBs +)	UncleasNot reported UncleasNot reported
Abdul Mujeeb, 1994 Abdul Mujeeb, 1994	Cross sectional Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling	Monocenter Monocenter	Prospetively Prospetively	Pakistan Pakistan	Unclear Not reported Unclear Not reported		Unclear Not reported Unclear Not reported	Urban	Moderate risk of biss	HCWs not specified Health professionals	Medical doctor	Direct ELISA Direct ELISA	Ag HBs Ag HBs	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Unclear Not reported Unclear Not reported
Abiola 2016	Cross sectional Cross sectional Cross sectional	Non probabilistic	Consecutive sampling	Monocenter	Prospetively	Norris	201	4 35.86	27.61	Urban	Moderate risk of biss	Naght mortessacoist NCVIVI not specified NCVIVI not specified NCVIVI not specified NCVIVI not specified Naght mortessacoist Na	Medical doctor HCWs not specified	Direct ELISA Direct ELISA Indirect ELISA Indirect ELISA	No HBs	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +) Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +) Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum
Ahmad Akhoundi, 2015	Cross sectional		Consecutive sampling Consecutive sampling	Monocenter	Prospetively	inin	May(2011	40.4	65.7	Urban	Moderate risk of biss	Health professionals		Indirect ELISA	Ac anti-HBs + Ac anti- HBc	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +)	Serum
Aimi, 2007	Cross sectional	Non probabilistic	Consecutive sampling	Monocenter	Prospetively Prospetively	Nigeria Nigeria	Apr/2003	Unclear/Not reported	40	Urban	Moderate risk of biss	Health management and support personnel	Administrative staff Administrative staff	Application test kits Application test kits	Ag HBs Ag HBs Ag HBs	Current HBV infection (Ag HBs +)	Serum Serum
Aisei, 2007	Cross sectional Cross sectional		Consecutive sampling Consecutive sampling	Monocenter	Prospetively	Norris	Apr/2003 Apr/2003	Unclear/Not reported Unclear/Not reported	40	Urban	Moderate risk of biss	Health professionals		Application test lits	No HBs		Serum
Aise; 2007 Aise; 2007 Aise; 2007 Aise; 2007 Aise; 2007 Aise; 2007	Cross sectional Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling	Monocenter Monocenter	Prospetively	Ngera Ngera	Apr/2003 Apr/2003	Unclear/ Not reported Unclear/ Not reported	40 40	Urban Urban	Moderate risk of biss Moderate risk of biss	Health associate professionals Personal care workers in health services	Medical laboratory technician Parient care assistant	Applutination test kits Applutination test kits	Ag HBs Ag HBs Ag HBs	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum Serum
All Control	Cross sectorial	Non probabilistic	Consecutive sampling Consecutive sampling	Monocenter	Prospetively Prospetively	Niperia Manera	Apr/2003	Unclear/Not reported Unclear/Not reported Unclear/Not reported Unclear/Not reported Unclear/Not reported	40	Urban	Moderate risk of biss	Health professionals	Physician Radiology			Current HBV infection (Ag HBs +)	Serum
Al-Sohabani, 1995	Cross sectional	Non probabilistic	Consecutive sampling	Multicenter	Prospetively	Saud asibis	1992-1994	Uncere Not reported 36.	2 63.4:16.6	Urban	Low risk of bias	HCWs not specified	HCWs not specified	Proprieson seat sea Direct ELISA	Ag HBs	Current HBV infection (Ag HBs +)	Serum
Al-Schaberi, 1995 Al-Schaberi, 1995 Aldeschole, 1976	Cross sectional		Consecutive sampling Consecutive sampling		Prospetively Prospetively	Saudi ambia Donmont		Unclear/ Not reported	2 63.4: 16.6	Urban	Low risk of bias	Health professionals	Physician Desired	Pippad Billion au ou. Direct Billion	Ag HBs Ag HBs Ag HBs	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum
Alese, 2016 Alese, 2016 Algebrari, 2014	Cross sectional	Non nmhohilistin	Consecutive semoling	Monocenter	Prospetively	Norra	Jan/1976 June/2015-Sep/2015	Unclear/Not reported	48.7	Urban	Moderate risk of biss	HCWs not specified Health professionals Other health service providers not elsewhere classified HCWs not specified	Dentist HCWs not specified	Direct ELISA Direct ELISA	ng 100 Ag 160 Ag 160 Ag 160 Ag 160 Ag 160 Ag 160 Ag 160	Commit 1897 infection (Ap 18s +)	Serum
Alesse, 2016 Aleshtani, 2014	Cross sectional Cross sectional	Non probabilistic	Consecutive sampling Stratified sampling Stratified sampling	Monocenter Monocenter	Prospetively 5	Nigera saudi arabia	June/2015 Sep/2015 Unclear/ Not reported Unclear/ Not reported	Unclear/ Not reported 20.	9 66.3	Urban	Moderate risk of biss	Other health service providers not elsewhere classified	Medical student intern. Hospital volunteer	Direct ELISA Direct ELISA Direct ELISA Direct ELISA	No HBs	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum
Algehters, 2014	Cross sectional	Non probabilistic	Stratified sampling	Monocenter	Prospetively	saudi arabia	Unclear/ Not reported	34	5 27	Urban	Moderate risk of biss	HCWs not specified	HCWs not specified	Direct ELISA	No HBs	Current HBV infection (Ag HBs +)	Serum
Ammon, 2000	Cross sectional Cross sectional Cross sectional	Non probabilistic	Stratified sampling Consecutive sampling Consecutive sampling	Monocenter	Prospetively	Germany	Unclear Not reported Feb/1997	Unclear/ Not reported Unclear/ Not reported	32.5	Urban	Moderate risk of biss Moderate risk of biss Moderate risk of biss Moderate risk of biss	Health associate professionals	Dental assistant	Radoimmunossay	ko nos ko HBs	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum
Ammon. 2000 Ammon. 2000	Cross sectional Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling	Monocenter Monocenter	Prospetively C	Germany Cormany	Feb/1997 Feb/1997	Unclear/Not reported Unclear/Not reported	32.5	Urban	Moderate risk of biss Moderate risk of biss	Health professionals Health associate renfessionals	Dentist Dentis assistant	Radioimmunosisiav	Ap HBs Ap HBs Ac anti-HBs (> 10 UM)	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +) Immunity against HBV (Ac ansi-HBs (> 10 UAIS)	Serum
Ammon 2000	Cross sectional	Non probabilistic	Consecutive sampling	Monocenter	Prospetively	Germany	Feb/1997	Unclear/Not reported	32.5	Urban	Moderate risk of biss	Health professionals		Radioimmunosissay	Ac anti-HBs (> 10 Ul/l)	Immunity against HBV (Ac anti-HBs (> 10 UUI)	Serum
Ameiau 2016 Anderson, 1983	Cross sectional Cross sectional Cross sectional	Non probabilistic	Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling	Multicenter Monocenter	Prospetively	United States of America	Dec/2014-Jan/2015	31.6 2 Unclear/Not reported	Unclear/ Not reported	Urban	Low risk of bias Low risk of bias	Health professionals Health management and support personnel HCWs not specified	Administrative staff HCWs not specified	Immunoctromitographic test Radioimmunosissity	Ac anti-HBs (> 10 UI/I) Ac HBs Ac anti-HBs (> 10 UI/I)	Immunity against HBV (Ac ansi-HBs (> 10 UAI)) Current HBV infection (Ag HBs +) Immunity against HBV (Ac ansi-HBs (> 10 UAI))	Serum
Andrew 2016	Cross sectional Cross sectional Cross sectional Cross sectional	NOT DEDDRESSES	Consecutive stampend	MORDCHINE	Retrospectively /	Australia	Jan 2012-Dec/2013	Unclear/Not reported 31.9	I herbory Not reported	Urban	Low risk of bias Low risk of bias Low risk of bias	HCWs not specified	HCWs not specified	Chemitumines cent enzyme immunosessay (CLESA)			Serum
Artoniello, 1989 Bacilrea, 2017	Cross sectional	Non probabilistic	Consecutive sampling Consecutive sampling	Monocenter	Retrospectively	Romania	Jan/1982-Sep/1982 Jan/2010-Dec/2014	31.9	34.9	Urban	Lowrisk of bias	HCWs not specified	HCWs not specified HCWs not specified	Birdommunososay Direct ELISA	Ag HBs	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum
Bahmari 2010 Bahmari 2010	Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling	Monocenter	Prospetively Prospetively	Inin	Nov/2007-Jun/2008 Nov/2007-Jun/2008	Unclear/Not reported Unclear/Not reported Unclear/Not reported	32.9	Urban Urban	Moderate risk of biss Moderate risk of biss	Health management and support personnel Health associate renfessionals	Administrative staff Medical laboratory technician	Direct ELISA Direct FLISA	Ap HBs La HBs	Current HBV infection (Ag HBs +)	Serum
Bahmani, 2010	Cross sectional Cross sectional Cross sectional	Non probabilistic	Consecutive sampling Consecutive sampling	Monocenter	Prospetively Prospetively	fran	Nov2007-Jun/2008 Nov2007-Jun/2008	Unclear/Not reported	32.9	Urban	Moderate risk of biss Moderate risk of biss	Health professionals	Medical laboratory technician Midwife	Direct ELISA Direct ELISA Direct ELISA	Ag HBs Ag HBs	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum
Bohmani, 2010	Cross sectional	Non probabilistic	Consecutive sampling	Monocenter	Prospetively	inin	Nov/2007-Jun/2008	Unclear/Not reported Unclear/Not reported Unclear/Not reported Unclear/Not reported	32.9	Urban	Moderate risk of biss	Health portusionals Personal care verters in health senices Health professionals Health professionals Health management and support personnal Health sessociate professionals Health management and support personnal Health sessociate professionals	Nursing side Physician Administrative stell	Direct ELISA	Ag HBs Ag HBs Ag HBs Ac ami-HBs (> 10 Ul/l)	Current HBV infection (Ag HBs +)	Serum
Bahmani, 2010 Rahmani, 2010	Cross sectional Cross sectional Cross sectional Cross sectional	Non probabilistic	Consecutive sampling	Monocenter Monocenter	Prospetively I	fran Iran	Nov/2007-Jun/2008 Nov/2007-Jun/2008	Unclear/ Not reported	32.9	Urban	Moderate risk of biss Moderate risk of biss	Health professionals Health management and support personnel	Physician Administrative staff	Direct ELISA Direct ELISA Indirect ELISA	Ag HBs Le ami, HRs /s 10 LE/b	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +) Immunity against HBV (Ac anti-HBs (> 10 UAII)	Serum
Bahmari. 2010	Cross sectional	Non probabilistic	Consecutive sampling	Monocenter	Prospetively	Inin	Nov2007-Jun/2008	Unclear/Not reported	32.9	Urban	Moderate risk of biss	Health associate professionals	Medical laboratory technician			Immunity against HBV (Ac anti-HBs (> 10 UUI)	Serum
Bahmari, 2010 Bahmari, 2010	Cross sectional Cross sectional	Non nembohiliste	Consecutive semoling	Monocenter	Prospetively Prospetively	fran	Nov2007-Jun/2008 Nov2007-Jun/2008	Unclear/ Not reported Unclear/ Not reported	32.9	Lithan	Moderate risk of hiss	Health professionals	Mdwife	Indirect EUSA Indirect EUSA	Ac anti-HBs (> 10 Ul/l) Ac anti-HBs (> 10 Ul/l)	Immunity against HBV IAc anti-HBs (> 10 UNI) Immunity against HBV IAc anti-HBs (> 10 UNI)	Serum Serum
Bahmani, 2010	Cross sectional	Non probabilistic	Consecutive sampling Consecutive sampling Consecutive sampling	Monocenter	Prospetively	Iran	Nov/2007-Jun/2008	Unclear/Not reported	32.9	Urban	Moderate risk of biss	Personal care workers in health services	Nursing aids	Indirect EUSA	No anti-HBs (> 10 Ul/l)	Immunity against HBV (Ac anti-HBs (> 10 U/U)	Serum
Bahmani, 2010 Baldinger, 1986	Cross sectional Cross sectional	Non probabilistic	Consecutive sampling	Monocenter	Prospetively Prospetively	United States of America	Nov2007-3092008	Unclear/Not reported 4	1 Unclear/ Not reported	Urban	Low risk of bias	Personal care workers in health services Health professionals Health professionals	Physician Surgeons	Indirect EUSA Radoimmunossay			Serum Serum
Baldo, 2002 Barash 1999	Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling Convenience sampling	Multicenter	Retrospectively I Prospetively	Italy United States of America	Linclear/ Not reported	Unclear/ Not reported	17 36.3 Unclear/ Not reported	Urban	Low risk of bias Moderate risk of bias Moderate risk of bias	HCWs not specified HCWs not specified	HCWs not specified HCWs not specified		Ac anti-HBs (> 10 UI/I) Ac anti-HBs (> 10 UI/I)	Immunity against HBV (Ac anti-HBs (> 10 UUI) Immunity against HBV (Ac anti-HBs (> 10 UUI)	Serum Serum
Basing 2002 Bassah, 1999 Bassa, 1982 Bass, 1982 Bass, 1982 Bassa, 2006 Bassa, 2006 Bassa, 2015	Cross sectional Cross sectional Cross sectional Cross sectional	Non probabilistic	Consecutive sampling Convenience sampling Convenience sampling Consecutive sampling Consecutive sampling Simple random sampling	Monocenter	Prospetively	United States of America	Jul 1995 Mar 1996 Unclear Not reported	Unclear/ Not reported	Unclear/ Not reported	Urban	Moderate risk of biss	Health management and support personnel	Administrative staff	Radoimmunossay	Ag HBs	Current HBV infection (Ag HBs +)	Serum
Batista, 2006	Cross sectional	Probabilistic	Consecutive sampling Consecutive sampling Simple random sampling Simple random sampling Consecutive sampling	Monocenter	Prospetively 5	Brazil	Unclear/ Not reported Unclear/ Not reported Aug/2003-Nov/2004 Aug/2003-Nov/2004 Unclear/ Not reported	38.5	36.3	Lithan	Low risk of biss	Health professionals	Dentist	Radoimmunossasy (EIA)	Ag HBs Ag HBs Ag HBs + IgM anti-HBc Ac anti-HBs + Ac anti-HBc Ag HBs	Corrent HBV infection (Ag HBs +) Corrent HBV infection (Ag HBs +) Acutely infection (Ag HBs + ight ansi-HBc +) Immune due to natural infection (Ac ansi-HBs + Ac ansi-HBc +) Corrent HBV infection (Ag HBs +)	Serum Serum
Batista, 2006 Batra, 2015	Cross sectional	Proceedings	Simple random sampling	a Monocemen	Prospetively Prospetively	Brazil	Aug/2003-Nov/2004 Unclear/ Not reported	38.5	36.3 63.4	Urban Urban	Low risk of bias Low risk of bias	Health professionals Health professionals HCWs not specified	Dentist Dentist HCWs not specified	Enzyme irrenunossasiy (EIA) Direct ELISA	Ac anti-HBs + Ac anti- HBc Ac HBs	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +) Current HBV infection (Ag HBs +)	Serum Serum
Bellissimo-Rodrigues, 2006	Case control	Non probabilistic	Consecutive sampling Consecutive sampling Consecutive sampling	Monocenter	Prospetively	Bearl	Aug/2001-Apr/2002	34.5	37	Urban	Lowrisk of bias	Health professionals	Dentist	Direct ELISA	Ag HBs	Current HBV infection (Ag HBs +)	Serum
Bellissimo-Rodrigues, 2005 Bellissimo-Rodrigues, 2005 Belo, 2000	Case control Case control Cross sectional	Non probabilistic	Consecutive sampling	Monocenter Multicenter	Prospetively Prospetively	Noria	Aug/2001-Apr/2002 Aug/2001-Apr/2002 Unclear/ Not reported	34.5	72.5	Urban Urban	Low risk of bias Low risk of bias Moderate risk of bias	neuen professionals Health management and support personnel	Dentist Administrative staff	Direct ELISA Indirect ELISA Operat ELISA	vc anti-Htts + Ac anti- HBc No HBs		Serum Serum
Barris, 1978 Ramis, 1978	Cross sectional	Non probabilistic	Consecutive sampling	Monocenter	Prospetively (Canada Midinia countrias	197	7 40.	5 Unclear/ Not reported 5 Unclear/ Not reported Unclear/ Not reported	Urban	Low risk of bias	Health professionals Health professionals Health professionals	Dentist Dentist Anieschefats	Radioimmunososay Radioimmunososay	Ag HBs Ag HBs Ac anti-HBs + Ac anti- HBc	Current HBV infection (Ag HBs +)	Serum Serum
Berris, 1978 Berris, 1978 Berris, 1978 Berry, 1984 Bhattachanya, 2014	Cross sectional Cross sectional	Non probabilistic	Consecutive sampling Consecutive sampling		Prospetively Prospetively	Multiple countries United States of America	Unclear/ Not reported	Unclear/ Not reported	Unclear/ Not reported	Unclear/Not reported	Moderate risk of biss	Health professionals	Anaesrbetata	Radioimeunossisy Radioimeunossisy	Ac arti-HBs + Ac arti- HBc	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +)	Serum Serum
Bhatachana, 2014 Bianchini, 2019	Cross sectional Cross sectional	Non probabilistic	Consecutive sampling Consecutive sampling	Monocenter Monocenter	Prospetively I	India	May/2011-Jan/2014 Apr/2014-Jun/2017	25.3 24.05	Unclear/ Not reported 35.0	Unclear/ Not reported Unclear/ Not reported	Moderate risk of biss Low risk of hiss	HCWs not specified Other health service providers not elsewhere classified HCWs not specified HCWs not specified	HCWs not specified Medical student intern. Hospital volunteer			Immunity against HBV (Ac anti-HBs (> 10 U/U) Immunity against HBV (Ac anti-HBs (> 10 U/U)	UnclearNot reported Serum
	Cross sectional Cohort (Baseline data)	Non probabilistic	Consecutive sampling Consecutive sampling Consecutive sampling	Monocenter	Retrospectively	Italy	Dec/2017-Jan/2019	24.00 38.6 9 35.0	36	Unclear/ Not reported	Moderate risk of biss	HCWs not specified	HCWs not specified HCWs not specified		Ac anti-HBs (> 10 UI/I) Ac anti-HBs (> 10 UI/I) Ac HBs		Serum Serum
didwise, 1992 Bilounca Ndongo, 2018	Cross sectional Cross sectional	Non probabilistic	Consecutive sampling	Multicenter	Prospetively Prospetively	nosesydità Cameroon	Jul 2016-Aug 2016	33.0	11.4 4 34.7	Urban	Modesate risk of biss	HCWs not specified	HCWs not specified	Engyme erenunokakay (EIA) Rapid Dispressio test	Ag HBs Ag HBs Ac anti-HBs (> 10 LB/I) Ag HBs Ac anti-HBs + Ac anti-HBc Ag HBs + IgM anti-HBc Ag HBs Ag HBs Ag HBs Ag HBs Ag HBs	Current HBV infection (Ag HBs +)	Serum
Bini, 2018	Cross sectional	Non probabilistic	Consecutive sampling	Monocenter	Prospetively	Italy	Jan/2014-Dec/2015 Unclear/ Not reported	Unclear/ Not reported Unclear/ Not reported	Unclear Not reported	Urban	Low risk of bias	HCWs not specified	HCWs not specified HCWs not specified	Papid Disposition for the Commission of the Comm	Ac anti-HBs (> 10 Ul/l)	Current HBV Infection (Ag HBs +) Immunity against HBV (Ac anti-HBs (> 10 UAII) Current HBV Infection (Ag HBs +)	Serum
Bibunca Ndongo, 2018 Bini, 2018 Bingual, 2011 Blantonii, 1985	Cross sectional Cross sectional Cross sectional	Non probabilistic	Consecutive sampling Consecutive sampling Consecutive sampling	Monocenter	Prospetively	France	Jun'1981-Jun'1982 Jun'1981-Jun'1982	Unclear/ Not reported Unclear/ Not reported Unclear/ Not reported	Unclear/ Not reported	Urban	Moderate risk of biss Moderate risk of biss Moderate risk of biss Low risk of biss Low risk of biss Low risk of biss	Health professionals	Nurse	Radioinmunossay	ko nos ko HBs		Serum
Blanloeil, 1985 Brake 2006	Cross sectional Cross sectional Cross sectional	Non probabilistic Probabilistic	Consecutive sampling Simple random sampling	Monocenter Multicenter	Prospetively Prospetively	France			Unclear/ Not reported	Urban	Moderate risk of biss Low risk of biss	Health professionals HCWs not specified	Anaesthetata HCWs not specified	Redommenososy Enzyma immunososy (FIA)	Lo anti-HBs + Ac anti- HBc	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +) Acutety infected (Ag HBs + IgM anti-HBc +) Current HBV infection (Ag HBs +)	Serum
Braka, 2006	Cross sectional	Probabilistic	Simple random samplin	Multicenter	Prospetively	Uganda	201	3 36.9 3 36.9	43	Rural	Low risk of bias	HCWs not specified	HCWs not specified	Enzyme immunosissky (EIA)	Ag HBs	Current HBV infection (Ag HBs +)	Serum
Braka, 2006 Braka, 2006	Cross sectional Cross sectional	Probabilistic Probabilistic	Simple random sampling Simple random sampling	Multicenter Multicenter	Prospetively Prospetively	Uganda Uganda			43	Rural	Low risk of bias	Health professionals	Medical laboratory technician Midwife	Enzyme immunossasy (EIA) Enzyme immunossasy (EIA)	No HBs	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum
Braka, 2006	Cross sectional	Probabilistic Developing	Semple random samplin Simple random samplin	Multicenter	Prospetively Prospetively	Uganda Uganda	200	3 369 3 369 3 369	43	Rural Rural Rural Rural Rural Lithan	Low risk of bias	Health professionals Health professionals Personal care writers in health services	Nurse Nursing aide	Enzyme immunosessey (EIA)	19,1956 10,195	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum
Braka, 2006	Cross sectional	Probabilistic	Simple random sampling	Muticenter	Prospetively	Uganda	200		43	Runal	Low risk of bias	HCWs not specified	HCWs not specified	Enzyme immunoassay (EIA) Enzyme immunoassay (EIA)	Ac anti-HBs + Ac anti- HBc	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +)	Serum
Braka, 2006 Butsashulii 2012	Cross sectional	Probabilistic Probabilistic	Simple random sampling Simple random sampling	Multicenter Multicenter	Prospetively C	Upanda Georgia	2006-2007	3 36.9 Unclear/Not reported	43	Rural	Low risk of bias Low risk of bias Low risk of bias	HCWs not specified HCWs not specified HCWs not specified	HCWs not specified HCWs not specified	Enzyme immunosassy (EIA) Enzyme immunosassy (EIA) Neurollassion Assay Indisect EUSA Enzyme (ECIA)	Ac anti-HBs (> 10 Ul/l) Ln HRs	Committed or resource (or group +) Immune due to prake infection (or grot-Hills + Ac and-Hills +) Immune due to prake infection (or grot-Hills + Ac and-Hills +) Immune against 1851 (Ac and-Hills to 10 UAI) Immune against 1851 (Ac and-Hills to 10 UAI) Immune against 1851 (Ac and-Hills to 10 UAI) Immune due to material refection (Ac Hills +) Im	Serum Serum
Cardell 1999	Cross sectional	Non probabilistic	Consecutive sampling	Multicenter	Prospetively	Sweden	Sept1991-Mey1993 Jan/1999-Jan/2000 Unclear/ Not reported 1978-1982		6 17	Unclear/Not reported	Moderate risk of biss	HCWs not specified	HCWs not specified	Indirect EUSA	Ac anti-HBs (> 10 UM)	Immunity against HBV (Ac anti-HBs (> 10 U/III)	Serum
Carneiro, 2003 Chaudhari, 2008	Cross sectional Cross sectional Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling	Monocenter Monocenter	Prospetively Prospetively	Brazil India	Jan/1999-Jan/2000 Unclear/ Not reported	37.6 Unclear/Not reported Unclear/Not reported	58.9 52.7	Urban Urban	Moderate risk of biss Moderate risk of biss	Health professionals HCWs not specified	Anasythetists HCWs not specified	Electro-chemituminescence immunoassay (ECLIA) Enzyme immunoassay (EIA)	Ap HBs Ac ami-HBs (> 10 UM)	Current HBV infection (Ag HBs +) Immunity against HBV [Ac anti-HBs (> 10 UU)]	Serum Serum
Chemesky, 1984	Cross sectional	Non probabilistic	Consecutive sampling	Multicenter	Prospetively	Canada	1978-1982	Unclear/Not reported	Unclear/ Not reported	Urban	Moderate risk of biss	Health professionels	Anasschetata	Radoimmunossay	Ac anti-HBs + Ac anti- HBc	immuna dua to nataral infection (Ac anti-HBs + Ac anti-HBc +) Acutativ infectad (Ap HBs + IgM anti-HBc +)	Serum
Chianakul, 2007	Cross sectional Cross sectional Cross sectional	Non probabilistic	Consecutive sampling	Monocenter	Prospetively	Thailand	2004-2005	40.4	14.4	Unclear/ Not reported	Moderate risk of biss	Health associate professionals	HCWs not specified Medical laboratory technician	Enzyme-linked fluorescence assay (ELFA), Microparticle Enzyme Immunosassiy (MEIA)	Ag HBs + IgM anti-HBc	Acutely infected (Ag HBs + IgM anti-HBc +)	Serum
Chierakul, 2007	Cross sectional	Non probabilistic	Consecutive sampling	Monocenter	Prospetively	Theiland	2004-2005	40.4	14.4	Unclear/ Not reported	Moderate risk of biss	Health professionals	Name	Enzyme-linked fluorescence assay (ELFA). Microparticle Enzyme Immunoassay (MEIA)	Le HBs + IgM anti-HBc	Acutely infected (Ag HBs + IgM anti-HBc +)	Serum
Chierekul, 2007	Cross sectional Cross sectional Cross sectional	Non probabilistic	Consecutive sampling Consecutive sampling	Monocenter	Prospetively	Theland	2004-2005 2004-2005	40.4	14.4	Unclear/ Not reported	Moderate risk of hiss	HCWs not specified	MCWs not appealing	The state of the s			0
Chianakul. 2007	Cross sectional	Non probabilistic	Consecutive sampling												No HBs	Current HBV infection (Ag HBs +)	
				Monocenter	Prospetively	Thirtiand Thirliand	2004-2005 2004-2005	40.4	14.4	Unclear/ Not reported Unclear/ Not reported Unclear/ Not reported	Moderate risk of biss Moderate risk of biss	Health associate professionals Health professionals	Medical laboratory technician	Microparicle Engine Immunoassay (MEIA) Microparicle Engine Immunoassay (MEIA)	Ag HBs + IgM anti-HBc Ag HBs Ag HBs Ag HBs	Acutaty infected (Ag HBs + IgM anti-HBc +) Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum Serum
Chianakul. 2007 Chianakul. 2007	Cross sectional Cross sectional	Non probabilistic	Consecutive sampling Consecutive sampling	Monocenter Monocenter	Prospetively Prospetively	Theland Theland Theland	2004-2005	40.4 40.4 40.4	14.4 14.4 14.4			PCWs not specified **CWs not specified **Section of spe	Medical laboratory technician Nurse Physician	Microparticle Enzyme Immurosissay (MEIA)	No HBs	Current HBV infection (Ag HBs +)	Serum Serum Serum
Chianakul, 2007 Chianakul, 2007 Chianakul, 2007	Cross sectional Cross sectional Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling	Monocenter	Prospetively Prospetively Prospetively	Thelland Thelland Thelland	2004-2005 2004-2005 2004-2005	40.4 40.4	14.4 14.4 14.4 14.4 14.4	Unclear/ Not reported	Moderate risk of biss Moderate risk of biss	Health professionals HCWs not specified	Physician HCWs not specified	Microartick Engine Immunossisty (MEIA) Microartick Engine Immunossisty (MEIA) Microartick Engine Immunossisty (MEIA)	Ag HBs Ag HBs Ac anti-HBs (> 10 UN)	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +) Immunity against HBV (Ac anti-HBs (> 10 U/III)	Serum Serum Serum Serum Serum
Chianakus. 2007 Chianakus. 2007 Chianakus. 2007 Chianakus. 2007	Cross sectional Cross sectional Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling	Monocenter	Prospetively Prospetively Prospetively	Theland Theland	2004-2005	40.4 40.4	16.4 16.4 16.4 16.4 16.4 16.4	Unclear/ Not reported Unclear/ Not reported Unclear/ Not reported Unclear/ Not reported	Moderate risk of biss Moderate risk of biss Moderate risk of biss Moderate risk of biss	Health professionals HCWs not specified Halth associate professionals Health associate professionals	Medical Industrian Maria Physician HCWs not specified Medical Inbostory technician Norse Medical Inbostory technician	Microparicle Engine Immunolator (META)	Ag HBs Ag HBs Ac ami HBs (> 10 Ulil) Ac ami HBs (> 10 Ulil) Ac ami HBs (> 10 Ulil)	Corrent HBV infection (Ap HBs +) Corrent HBV infection (Ap HBs +) Immunity against HBV (Ac anti-HBs to 10 UAIS)	Serum Serum Serum Serum Serum Serum
Chianakus. 2007 Chianakus. 2007 Chianakus. 2007 Chianakus. 2007	Cross sectional Cross sectional Cross sectional	Non probabilistic Non probabilistic Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling	Monocenter Monocenter Monocenter Monocenter Monocenter	Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively	Thelland Thelland Thelland	2004-2005 2004-2005 2004-2005 2004-2005 2004-2005 2004-2005	40.4 40.4	16.4 16.4 16.4 16.4 16.4 16.4 16.4 Linclear/ Not reported	Unclear/ Not reported Unclear/ Not reported Unclear/ Not reported Unclear/ Not reported	Moderate risk of biss Moderate risk of biss Moderate risk of biss Moderate risk of biss	Health professionals HCWs not specified Halth associate professionals Health associate professionals	Physician HCWs not specified Medical lishoratory technician Narse Physician HCWs not specified	Microparicle Engine Immunolator (META)	Ag HBs Ag HBs Ac ami HBs (> 10 Ulil) Ac ami HBs (> 10 Ulil) Ac ami HBs (> 10 Ulil)	Corrent HBV infection (Ap HBs +) Corrent HBV infection (Ap HBs +) Immunity against HBV (Ac anti-HBs to 10 UAIS)	Serum
Chianakus. 2007 Chianakus. 2007 Chianakus. 2007 Chianakus. 2007	Cross sectional	Non probabilistic Non probabilistic Non probabilistic Non probabilistic	Consecutive sampling	Monocenter Monocenter Monocenter Monocenter Monocenter	Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively	Thelland Thelland Thelland Thelland Thelland Seasol Löya	2004-2005 2004-2005 2004-2005 2004-2005	40.4 40.4	14.4 14.4 14.4 14.4 14.4 14.4 14.4 Unclass! Not reported	Unclear! Not reported Unclear!	Moderate risk of biss Moderate risk of biss Moderate risk of biss Moderate risk of biss Moderate risk of biss Low risk of biss Moderate risk of biss	Health professionals Health professionals Health sessociate professionals Health professionals Health professionals Health professionals HEALTH professionals HEALTH professionals	Physician HCWs not specified Medical laboratory technician Nurse Physician	Microparicle Engine Immunolator (META)	Ag HBs Ag HBs Ac ami HBs (> 10 Ulil) Ac ami HBs (> 10 Ulil) Ac ami HBs (> 10 Ulil)	Corrent HBV infection (Ap HBs +) Corrent HBV infection (Ap HBs +) Immunity against HBV (Ac anti-HBs to 10 UAIS)	Sestom
Chianakus. 2007 Chianakus. 2007 Chianakus. 2007 Chianakus. 2007	Cross sectional	Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling	Monocenter	Prospetively	Thelland Thelland Thelland	2004-2005 2004-2005 2004-2005 2004-2005 2004-2005 2004-2005	40.4 40.4 40.4 40.4 40.4 Unclear/Not reported Unclear/Not reported Unclear/Not reported	16.4 16.4 16.4 16.4 16.4 Unclear/ Not reported 50 Unclear/ Not reported	Unclase! Not reported Unclase! Not reported Unclase! Not reported Unclase! Not reported Unclase! Not reported Unclase! Not reported Unclase! Not reported Urbain	Modesste risk of biss Modesste risk of biss Modesste risk of biss Modesste risk of biss Modesste risk of biss Low risk of biss Modesste risk of biss Modesste risk of biss Modesste risk of biss	Health notices/mosts Hollyth not specified Health associate professionals Health associate professionals Health notices/mosts H	Physician HCWs not specified Medical laboratory technician Name Physician HCWs not specified HCWs not specified HCWs not specified HCWs not specified	Memoratic Forme Immunosary MELA Deset ELAB Memoratic Forme Immunosary MELA Memoratic Forme Imm	5g HBs Ag HBs (> 10 UM) Ac anti-HBs (> 10 UM) Ac HBs Ac HBs Ac anti-HBs + Ac anti-HBc Ac anti-HBs + Ac anti-HBc	Carrent HEV Infection (Ap. 18th a. 15 (1845) Carrent HEV Infection	Serum
Chianakus. 2007 Chianakus. 2007 Chianakus. 2007 Chianakus. 2007	Cross sectional	Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling	Monocenter	Prospetively	Thelland Thelland Thelland Thelland Thelland Thelland Social	2004-2005 2004-2005 2004-2005 2004-2006 2004-2006 2004-2008 2004-2	40.4 40.4	14.4 14.4 14.4 14.4 14.4 Lincleier Not reported 60 60 Lincleier Not reported	Unclase! Not reported Unclase! Not reported Unclase! Not reported Unclase! Not reported Unclase! Not reported Unclase! Not reported Unclase! Not reported Urbain	Modesste risk of biss Modesste risk of biss Modesste risk of biss Modesste risk of biss Modesste risk of biss Low risk of biss Modesste risk of biss Modesste risk of biss Modesste risk of biss	Health notices/mosts Hollyth not specified Health associate professionals Health associate professionals Health notices/mosts H	Physician HCWs not specified Medical laboratory technician Name Physician HCWs not specified HCWs not specified HCWs not specified HCWs not specified	Memoratic Forme Immunosary MELA Deset ELAB Memoratic Forme Immunosary MELA Memoratic Forme Imm	5g HBs Ag HBs (> 10 UM) Ac anti-HBs (> 10 UM) Ac HBs Ac HBs Ac anti-HBs + Ac anti-HBc Ac anti-HBs + Ac anti-HBc	Carrent HEV Infection (Ap. 18th a. 15 (1845) Carrent HEV Infection	Serum
Chinested, 2007 Daw, 2000 Daw, 2000 de List de, 1997 de Paine, 2000 Daw, 2015 Dawy, 2015 Dawy, 2015	Cross sectional	Non probabilistic. Non probabilistic. Non probabilistic. Non probabilistic. Non probabilistic. Non probabilistic. Non probabilistic. Non probabilistic. Non probabilistic. Non probabilistic.	Consecutive sampling Connecutive sampling	Monocenter	Prospetisely	Theland Theland Theland Theland Theland Theland Basel Libra New Zealard Basel Republic of the Corgo Republic of the Corgo	2004-2005 2004-2	40.4 40.4 40.4 40.4 40.4 40.4 40.4 40.4	14.4 14.4 14.4 14.4 14.4 Lincleier Not reported 60 60 Lincleier Not reported	Unclear Not reported Unclear Not reported	Moderate risk of biss. Low risk of biss. Low risk of biss. Low risk of biss. Moderate risk of biss.	Insultin confessionals FOVEN not seponded Founds insulational Founds insulational Founds insulational Founds insulational Founds insulational FOVEN not seponded	Physician Medical laboratory technician Medical laboratory technician Name Physician HCWs not specified HCWs not specified HCWs not specified Denni specified Denni specified Userdi specified HCWs not specified	Memoratic forms intercenter MEA 1. Memoratic forms intercenter ME	6g HBs 6c arei-HBs (> 10 LBH) 6c arei-HBs (> 10 LBH) 6c arei-HBs (> 10 LBH) 6c arei-HBs (> 10 LBH) 6c arei-HBs (> 10 LBH) 6g HBs 6g HBs (A arei-HBc 6c arei-HBs (A arei-HBc	Contract HEV reference (Apr HEV a.)	Serum
Chinested, 2007 Daw, 2000 Daw, 2000 de List de, 1997 de Paine, 2000 Daw, 2015 Dawy, 2015 Dawy, 2015	Cross sectional	Non probabilistic. Non probabilistic. Non probabilistic. Non probabilistic. Non probabilistic. Non probabilistic. Non probabilistic. Non probabilistic. Non probabilistic. Non probabilistic.	Consecutive sampling Connecutive sampling	Monocenter	Prospetisely	Thelland Thelland Thelland Thelland Thelland Thelland Social	2004-2005 2004-2	40.4 40.4 40.4 40.4 40.4 Unclear/Not reported Unclear/Not reported Unclear/Not reported	14.4 14.4 14.4 14.4 14.4 Lincleier Not reported 60 60 Lincleier Not reported	Unclear Not reported Unclear Not reported	Moderate risk of biss. Low risk of biss. Low risk of biss. Low risk of biss. Moderate risk of biss.	Insultin confessionals FOVEN not seponded Founds insulational Founds insulational Founds insulational Founds insulational Founds insulational FOVEN not seponded	Physician Medical laboratory technician Medical laboratory technician Name Physician HCWs not specified HCWs not specified HCWs not specified Denni specified Denni specified Userdi specified HCWs not specified	Monomistic Sories International Miles Monomistic Sories International Monomistic Miles M	19,1986 16,2018 16,201	Comment (March Conference Confere	Serum
Chianakus. 2007 Chianakus. 2007 Chianakus. 2007 Chianakus. 2007	Cross sectional	Non resobabiliste. Probabiliste. Non resobabiliste. Probabiliste. Non resobabiliste.	Consecutive simmelror Consecutive simmelror	Monocenter	Prospetisely	Theland Theland Theland Theland Theland Theland Basel Libra New Zealard Basel Republic of the Corgo Republic of the Corgo	2004-2005 2004-2005 2004-2005 2004-2006 2004-2006 2004-2008 2004-2	49.4 49.4 49.4 49.4 49.4 49.4 49.4 49.4	14.4 14.4 14.4 14.4 14.4 Lincleier Not reported 60 60 Lincleier Not reported	Unclear Net recorted Unclear Net recorted Unclear Net reported Unclear N	Modesses risk of histo. Low risk of histo. Modesses risk of histo. Modesses risk of histo. Modesses risk of histo. Low risk of histo. Modesses risk of histo.	Traph northeasterial "New York I transport of the Committee of the Commit	Physician Medical laboratory technician Medical laboratory technician Name Physician HCWs not specified HCWs not specified HCWs not specified Denni specified Denni specified Userdi specified HCWs not specified	Absonable Some Memorates (MA)	19,1986 16,2018 16,201	Comment (March Conference Confere	Setum Setum Setum Setum Setum Setum Setum Setum Setum Setum
Chinaries 2, 2007 Chinaries 2, 2008 Chinaries 2,	Cross sectional	Non resobabiliste. Probabiliste. Non resobabiliste. Probabiliste. Non resobabiliste.	Consecutive simmelror Consecutive simmelror	Monocenter	Prosesticity	Theland Theland Theland Theland Theland Theland Basel Libra New Zealard Basel Republic of the Corgo Republic of the Corgo	2004-2005 2004-2	49.4 49.4 49.4 49.4 49.4 49.4 49.4 49.4	16.4 16.4 16.4 16.4 16.6 16.6 16.6 16.6	Unclear Net recorted Unclear Net recorted Unclear Net reported Unclear N	Modesses risk of histo. Low risk of histo. Modesses risk of histo. Modesses risk of histo. Modesses risk of histo. Low risk of histo. Modesses risk of histo.	Traph northeasterial SVN van teached serviceste South of the second serviceste South of the second serviceste SVN van teached SVN van teached SVN van teached SVN van teached Financial case of the second s	Physician Medical laboratory technician Medical laboratory technician Name Physician HCWs not specified HCWs not specified HCWs not specified Denni specified Denni specified Userdi specified HCWs not specified	Absonable Some Memorates (MA)	49 HBs 42 HBs 5-10 LBh 42 arm + HBs 5-10 LBh 42 HBs 6-10 HBs 42 arm + HBs 42 arm + HBs 43 arm + HBs 43 HBs 6-10 HBs	Comment Will of Indicated the State 1. Comment Will of Indicated the State 1. Indicated the State 1.	Setum Setum Setum Setum Setum Setum Setum Setum Setum Setum
Chanada 2007 Chanada 2009 Daw. 2000	Cross sectional	Non recobabiliste. Probabiliste. Probabiliste. Non recobabiliste. Probabiliste. Probabiliste. Probabiliste.	Consecutive assessing Consecutive assessing Consecutive Con	Monoposimitar Monopo	Prosentable Prosen	Thaland Thaland Thaland Thaland Thaland Thaland Thaland Thaland State of the State	2006-2006 2006-2	60.4 60.4 60.4 60.6 60.6 60.6 60.6 60.6	16.4 16.4 16.4 16.4 16.4 16.6 16.6 16.6	Unidear Net resonate Lindear Lindear Net resonate Lindear Linde	Modesner risk of biss. Modesner risk of biss. Loor risk of biss. Modesner risk of biss. Modesner risk of biss. Loor risk of biss. Modesner risk of biss. Loor risk of biss.	Tradit molecularisation Tradit	Provinces Five to an extended to the control of th	Absonation forms internentian Miles (Assonation forms and Assonation for	\$2,000. \$2,000. \$4,000	Chemical Marie (Annie (Annie Marie (Annie (Annie Marie (Annie (Annie Marie (Annie (Annie (Annie (Annie (Annie (Annie (Annie (Annie (Ann	Selvon
Chanada 2007 Chanada 2009 Daw. 2000	Cross sectional	Non recobabiliste. Probabiliste. Probabiliste. Non recobabiliste. Probabiliste. Probabiliste. Probabiliste.	Consecutive assessing Consecutive assessing Consecutive Con	Memore unter Memor	Prosentable Prosen	Thaland Thaland Thaland Thaland Thaland Thaland Thaland Thaland State of the State	2006-2006 2006-2	60.4 60.4 60.4 60.6 60.6 60.6 60.6 60.6	16.4 16.4 16.4 16.4 16.4 16.6 16.6 16.6	Unidear Net resonate Lindear Lindear Net resonate Lindear Linde	Modesner risk of biss. Modesner risk of biss. Loor risk of biss. Modesner risk of biss. Modesner risk of biss. Loor risk of biss. Modesner risk of biss. Loor risk of biss.	Tradit molecularisation Tradit	Provinces Five to an extended to the control of th	Absonation forms internentian Miles (Assonation forms and Assonation for	\$2,000. \$2,000. \$4,000	Chemical Marie (Annie (Annie Marie (Annie (Annie Marie (Annie (Annie Marie (Annie (Annie (Annie (Annie (Annie (Annie (Annie (Annie (Ann	Security
Chanada 2007 Chanada 2009 Daw. 2000	Cross sectional Cross sectiona	Non exclusivistics Non exclusivi	Consecutive sameline sameline consecutive sameline sameline sameline consecutive sameline sameli	Menocember Menocember Menocember	Prosenius Prosen	Thaland Thaland Thaland Thaland Thaland Thaland Thaland Thaland State of the State	2006-2006 2006-2	49.4 49.4 49.4 49.4 49.4 49.4 49.4 49.4	14.4 14.4 14.4 14.4 14.4 14.4 14.4 14.4	Declaration foot reported Declaration foot foot reported Declaration foot foot reported Declaration foot foot foot foot foot Declaration foot foot foot foot Declaration	Modemer risk of bies Modemer risk of bies Corr risk of bies Low risk of bies Low risk of bies Low risk of bies Low risk of bies	See in coloration (See See See See See See See See See Se	Provinces A Comment of the Comment	Manuschi Arona Minomania (Mil) Manuschi Mil) Manuschi Mil	も 計画 - 10 - 10 - 10 - 10 - 10 - 10 - 10 - 1	Amount Mary Continue (Inc. May 1, 1997). Amount Mary Continue (Inc. May 1, 1997). Amount Assess of Mary Continue (Inc. May 1, 1997). Amount Assess of Mary Continue (Inc. May 1, 1997). Amount Assess of Mary Continue (Inc. May 1, 1997). Amount Assess of Mary Continue (Inc. May 1, 1997). Amount Assess of Mary Continue (Inc. May 1, 1997). Amount Continue (Inc. May 1, 1997).	Selvon
Chanada 2007 Chanada 2009 Daw. 2000	Cross sectional Cross sectiona	Non exclusivities Non exclusivities Probabilistic Probabilistic Probabilistic Probabilistic Probabilistic Probabilistic Probabilistic Probabilistic Probabilistic Probabilistic	Consecutive sameline consecutive sameline consecutive sameline consecutive sameline consecutive sameline consecutive sameline sameline consecutive sameline consecutive sameline consecutive sameline consecutive sameline consecutive sameline consecutive sameline consecutive sameline	Memore unter Memor	Prosentable Prosen	Thaland Thaland Thaland Thaland Thaland Thaland Thaland Thaland State of the State	2006-2006 2006-2	60.4 60.4 60.4 60.6 60.6 60.6 60.6 60.6	14.4 14.4 14.4 14.4 14.4 14.4 14.4 14.4	Declaration Not reported Abstract Not report	Modesser risk of biss. Core risk of biss. Love risk of biss.	See in coloramento See in colora	Processor Medical Laboratories Stock Sto	Manuschi Arona Minomania (Mil) Manuschi Mil) Manuschi Mil	も 計画 - 10 - 10 - 10 - 10 - 10 - 10 - 10 - 1	Amount Mary Continue (Inc. May 1, 1997). Amount Mary Continue (Inc. May 1, 1997). Amount Assess of Mary Continue (Inc. May 1, 1997). Amount Assess of Mary Continue (Inc. May 1, 1997). Amount Assess of Mary Continue (Inc. May 1, 1997). Amount Assess of Mary Continue (Inc. May 1, 1997). Amount Assess of Mary Continue (Inc. May 1, 1997). Amount Continue (Inc. May 1, 1997).	Security
Chanada 2007 Chanada 2009 Daw. 2000	Cross sectional Cross sectiona	Non exclusivities Non exclusivities Probabilistic Probabilistic Probabilistic Probabilistic Probabilistic Probabilistic Probabilistic Probabilistic Probabilistic Probabilistic	Consecutive sameline consecutive sameline consecutive sameline consecutive sameline consecutive sameline consecutive sameline sameline consecutive sameline consecutive sameline consecutive sameline consecutive sameline consecutive sameline consecutive sameline consecutive sameline	Menocember	Prosenius Prosen	Thaland Thaland Thaland Thaland Thaland Thaland Thaland Thaland State of the State	1004-2005 2004-2	#0.4	14.4 14.4 14.4 14.4 14.4 14.4 14.4 14.4	Declaration Not reported Abstract Not report	Modesser risk of biss. Core risk of biss. Love risk of biss.	See in coloramento See in colora	Processor Marked Mentality Association Marked Mentality Marked Mental	Manuschi Arona Minomania (Mil) Manuschi Mil) Manuschi Mil	も 計画 - 10 - 10 - 10 - 10 - 10 - 10 - 10 - 1	Amount Mary Continue (Inc. May 1, 1997). Amount Mary Continue (Inc. May 1, 1997). Amount Assess of Mary Continue (Inc. May 1, 1997). Amount Assess of Mary Continue (Inc. May 1, 1997). Amount Assess of Mary Continue (Inc. May 1, 1997). Amount Assess of Mary Continue (Inc. May 1, 1997). Amount Assess of Mary Continue (Inc. May 1, 1997). Amount Continue (Inc. May 1, 1997).	Security
Chanada 2007 Chanada 2009 Daw. 2000	Cross sentional Cross sentiona	Non zerüskelinde Non zerüskel	Consessables assessible consessables assessible assessi	Memore united Me	Prosenius Prosen	Thaland Thaland Thaland Thaland Thaland Thaland Thaland Thaland State of the State	1004-2005 2004-2	#0.4	14.4 14.4 14.4 14.4 14.4 14.4 14.4 14.4	Declaration Not reported Abstract Not report	Modemen risk of bisse Lover risk of bisse Modemen risk of bisse Lover risk of bisse	See in coloramento See in colora	Processor Marked Mentality Association Marked Mentality Marked Mental	Memorials dorse intercention Mill. M.	6 1956 1	Comment (Sept. April 1997) A 1997 A 1	Security
Commission 2007 Chamadra 2007 Cham	Cross sentional Cross sentiona	Non zerüszleilerie Non zerüszlei	Consessables assessible consessables assessible assessi	Memore united Me	Prosenius Prosen	Thaland Thaland Thaland Thaland Thaland Thaland Thaland Thaland State of the State	2004-2005 2004-2	60.4 60.4	15.4.4 14.4.4 14.4.4 15.4.4 15.4.4 15.4.4 15.4.5 15.4.4 15.4.5 15.4.4 15.4.5 15.4.5 15.4.4 15.4.5 15	Declaration Not reported Abstract Not report	Modemen risk of bisse Lover risk of bisse Modemen risk of bisse Lover risk of bisse	See in coloramento See in colora	Processors and Control of Control	Memorials dorse intercention Mill. M.	6 1956 1	Comment (Sept. April 1997) A 1997 A 1	Address Series S
Commission April	Cross sentional	Non serbiabiliste. Probabiliste. Non serbiabiliste.	Consession sensitivos con consession sensitivos con consession sensitivos consessions consession	Memorament	Prosenius Prosen	Thaland Thaland Thaland Thaland Thaland Thaland Thaland Thaland State of the State	2004-2005	#0.4	14.4 14.4 14.4 15.4 15.4 15.4 15.4 15.4	Sectional State reported Sectional Section State reported Sectional State reported Sectional State reported Sectional Section Sect	Montener risk of biss. Love risk of biss. Montener risk of biss. Love risk of biss. Montener risk of biss. Montener risk of biss.	See in coloramento See in colora	Processors Annual State of Control of Contr	Absonable Across Internocesson Milks (1) Management (1) Mana	April Apri	Construction Control And Annual Control Contro	Security
Commission April	Cross sentional	Non serbiabiliste. Probabiliste. Non serbiabiliste.	Consession sensitivos con consession sensitivos con consession sensitivos consessions consession	Memorament	Prosenius Prosen	Thaland Thaland Thaland Thaland Thaland Thaland Thaland Thaland State of the State	2004-2005	60.4 60.4	14.4 14.4 14.4 15.4 15.4 15.4 15.4 15.4	Sectional State reported Sectional Section State reported Sectional State reported Sectional State reported Sectional Section Sect	Montener risk of biss. Love risk of biss. Montener risk of biss. Love risk of biss. Montener risk of biss. Montener risk of biss.	See in coloramento See in colora	Processors Annual State of Control of Contr	Absonable Across Internocesson MAI II. Management Services III. Mana	April Apri	Construction Control And Annual Control Contro	Address Series S
Commission April	Cross sentional	Non serbiabiliste Non serbiabi	Consession sameline Conses	Memorament	Prosenius Prosen	Thaland Thaland Thaland Thaland Thaland Thaland Thaland Thaland State of the State	2004-2005 2004-2	60.4 A STATE OF THE STATE OF TH	14.4 14.4 14.4 15.4 15.4 15.4 15.4 15.4	Sectional State reported Sectional Section State reported Sectional State reported Sectional State reported Sectional Section Sect	Montener risk of biss. Love risk of biss. Montener risk of biss. Love risk of biss. Montener risk of biss. Montener risk of biss.	See in coloramento See in colora	Processors and Control of Control	Absonable Across Internocesson MAI II. Management Services III. Mana	April Apri	Construction Control And Annual Control Contro	Address Series S
Committed 2007 Committed 2007	Cross sentional	Non serbiabiliste Non serbiabi	Consession sameline Conses	Memorament	Possededu Possed	Thaland Thaland Thaland Thaland Thaland Thaland Thaland Thaland State of the State	2004-2005 2004-2	60.4 A Grand Control of Control o	14.4 14.4 14.4 15.4 15.4 15.4 15.4 15.4	Sectional State reported Sectional Sectional State reported Sectional State reported Sectional State reported Sectional Section Se	Montener risk of biss. Love risk of biss. Montener risk of biss. Love risk of biss. Montener risk of biss. Montener risk of biss.	See in coloramento See in colora	Processors March Medical Conference March Medical March Ma	Absonable Across Internocesson MAI II. Management Services III. Mana	April Apri	Construction Control And Annual Control Contro	Seriori Serior
Committed 2007 Committed 2007	Costa administra Costa admini	Non servicularios Non se	Consection amendment of the control	Monocomie	Prosenius Prosen	Thaland Thaland Thaland Thaland Thaland Thaland Thaland Thaland State of the State	2004-2005 2004-2	60.4 A Grand Control of Control o	14.4 14.4 14.4 15.4 15.4 15.4 15.4 15.4	Sectional State reported Sectional Sectional State reported Sectional State reported Sectional State reported Sectional Section Se	Montener risk of biss. Love risk of biss. Montener risk of biss. Love risk of biss. Montener risk of biss. Montener risk of biss.	See in coloramento See in colora	Processors March Medical Conference March Medical March Ma	Attended to Service Interneution (ACI) Attended to Service Interneution (ACI) Attended Service Interneution (ACI)	To the Control of the	Construction of the American State Management of the Construction of the American State Management of the Construction of the	Address Series S
Committed 2007 Committed 2007	Costa administra Costa admini	Non servicularios Non se	Consection amendment of the control	Monocomie	Passeded Passed	Thaland Thaland Thaland Thaland Thaland Thaland Thaland Thaland State of the State	2004-2005 2004-2	60.4 A Grand Control of Control o	14.4 14.4 14.4 15.4 15.4 15.4 15.4 15.4	Sectional State reported Sectional Sectional State reported Sectional State reported Sectional State reported Sectional Section Se	Montener risk of biss. Love risk of biss. Montener risk of biss. Love risk of biss. Montener risk of biss. Montener risk of biss.	See in coloramento See in colora	Processors March Melestronic National March National March Melestronic National March National March Melestronic National March Melestro	Attended to Service Interneution (ACI) Attended to Service Interneution (ACI) Attended Service Interneution (ACI)	To the Control of the	Construction of the American State Management of the Construction of the American State Management of the Construction of the	Serioris Sarioris
Committed 2007 Committed 2007	Const ambiding Characteristics and construction Characteristics and cons	Non servicularios Non se	Consection amendment of the control	Monocomie	Passistation Pa	Tradecid Commission of Commiss	2004-2005. 2004-2005.	10.4 1	14.4 14.4 14.4 15.4 15.4 15.4 15.4 15.4	Section For Section 1 Section 1 Section For	Memory and or livery and or li	Seek mid-marine Seek manusche Seek manusche Seek marine Seek manusche Seek marine Seek	Processor March Laborator Machael Medicates National Ma	All Control and		Construction of the American Construction of	Section Sect
Channels (2007) Channels (2007	Const ambiding Change	Non servicularios Non se	Consession sameline Conses	Monocomie	Passeded Passed	Tradecid Commission of Commiss	2004-2005. 2004-2005.	10.4 1	14.4 14.4 14.4 15.4 15.4 15.4 15.4 15.4	Section For Section 1 Section 1 Section For	Memory and or livery and or li	Seek mid-marine Seek manusche Seek manusche Seek marine Seek manusche Seek marine Seek	Processors March Melestronic National March National March Melestronic National March National March Melestronic National March Melestro	All Control and		Construction of the American Construction of	Section Sect
Comments and Comme	Cons among a constraint of the	Non servicularios Non se	Construction amendment of the construction of the construction amendment of the construction ame	Monocomies	Passeded Passed	Tradecid Commission of Commiss	2004-2005 2004-2	Sec. 4. Sec. 4	14.4.4. 14.4	Section For secondary Control For Section	Memory and or law of the control of	Seek mid-assessed Seek assessed services Seek assessed Seek ass	Processors March Melestronic National March National March Melestronic National March National March Melestronic National March Melestro	Memorials dozina internazione MEM III. Memorials dia della de		Comment of the Commen	Section Sect
Comments and Comme	Cons among a constraint of the	Non servicularios Non se	Consection amendment of the control	Monocomies	Passeded Passed	Tradecid Commission of Commiss	2004-2005 2004-2	Sec. 4. Sec. 4	14.4.4. 14.4	Section For secondary Control For Section	Memory and or law of the control of	Seek mid-assessed Seek assessed services Seek assessed Seek ass	Processors March Melestronic National March National March Melestronic National March National March Melestronic National March Melestro	Memorials dozina internazione MEM III. Memorials dia della de		Comment of the Commen	Section Sect
Comments and Comme	Cons among a constraint of the	Nen entholiside. Sen semboliside.	Construction and section of the construction o	Monocode Comments of the Comme	Possebole	Tradecid Commission of Commiss	Total 2005	Sec. 4. Sec. 4	14.4.4. 14.4	Linday Menandad Linday	Montane and on the Montane and of the Montane and o	See An Assessment See	December 1	Memorials dozina internaziona (MA) Memorials dozina (MA)		Comment of the Commen	Section Sect
Channels (2007) Channels (2007	Chess Amelican Chess Amelican	Nen entholiside. Sen semboliside.	Construction amendment of the construction of the construction amendment of the construction ame	Monocomies	Passeded Passed	Trailegical Committee Comm	2004-2005 2004-2	Sec. 4. Sec. 4	14.4.4. 14.4	Linear Management (Linear Manage	Memoria minut bias. Memoria m	See An Assessment See	Processors March Melestronic National March National March Melestronic National March National March Melestronic National March Melestro	Attended to Service Management (ALL) Attended to Service Management (ALL) Attended Service Mana		Comment of the Commen	Section Sect
Compared, 2007. Compar	Chess Amelican Chess Amelican	Man entholistische Man entholi	Construction and Constr	Monocolomic Monoco	Possebole	Trailegical Committee Comm	Total article Total articl	Section 1	14.4.4. 14.4. 14.4.4.	Linear Management (Linear Manage	Memoria minut bias. Memoria m	See An Assessment See	Processor March Medical Control (1997) March Medical (1997) March Med	Memorials dozen internation (MI) Memori	14 August 19 Aug	Comment of the Commen	Section Sect
Commission April Commis	Chess Amelican Chess Amelican	Man entholistische Man entholistische Man entholistische Man entholistische Man entholistische Man	Construction and Construction of Construction and Constru	Monocolomic Monoco	Possebole	Trailegical Committee Comm	2004.000	Section 1	14.4.4. 14.4. 14.4.4.	Linear Management (Linear Manage	Memoria minut bias. Memoria m	See An Assessment See	Processor March Mellering Services March Mellering	Memorials dorse intercentant Mill. Memorials dorse intercentant M	14 May 12	Amenated Registration of the Management of the Comment of the Comm	Section Sect
Commission 2007 Commis	Total and State Total and	Man entholished Man antholished Man antholished Man antholished Man antho	Controlled a service of the control	Marcon Ma	Possebole	Trailegical Committee Comm	Total 2005	Sec. 4. Sec. 4	14.4.4. 14.4	Linear Management (Linear Manage	Memoria minut bias. Memoria m	See An Assessment See	Processor Manual State of Control of Contro	Memorials dones intercentes (MA) Memori	14 March 19	Comment of the Commen	Manual M
Commission 2017 Changing April Changing Apri	Chess Amelican Chess Amelican	Man entholished Man antholished Man antholished Man antholished Man antho	Construction and Constr	Marcon Ma	Possebole	Trailegical Committee Comm	2004.000	Section 1	14.4.4. 14.4. 14.4.4.	Linear Management (Linear Manage	Memoria minut bias. Memoria m	See An Assessment See	December 1997 Section 1997 Secti	Memorials dones intercentes (MA) Memori	14 March 19	Comment of the Commen	Jacobson Jac
Channels 2007 Channe	Chess and Control of C	Name and control of the control of t	Construction and section of the construction of the construction and construction of the construction of t	Mancachia Marcachia Marcac	Proceedings	Trailegical Committee Comm	Total 2005	### 1 Annual Process of the Control	14.4.4. 14.4	Johann M. Amandad Johann M. Amandad John M. Amandad Jo	Montane and on the Management of the Management	See An Assessment Control of the Con	Processor Manual State of Control of Contro	Memorials dozina himoconton Mill. Memorials dozina himoconton dozina himoconton Mill. Memorials dozina himoconton dozina himo	14 Mary 12 Mar	Amen with fire families that he was a second or a seco	Manual M
Channels 2007 Channe	Chess and Control of C	Name and control of the control of t	Construction and section of the construction of the construction and construction of the construction of t	Mancachia Marcachia Marcac	Panestody	Trailegical Committee Comm	Total 2005	### 1 Annual Process of the Control	14.4.4. 14.4	Johann M. Amandad Johann M. Amandad John M. Amandad Jo	Montane and on the Management of the Management	Seek mid-married Seek mid-mar	December 1997 December 1997	Memorials dozina himoconton Mill. Memorials dozina himoconton dozina himoconton Mill. Memorials dozina himoconton dozina himo	14 Mary 12 Mar	Amen with fire families that he was a second or a seco	Manual M
Commission 2011 Charlest April 2012 Charlest Apri	Chesses and Chesse	Anne annich der Anne annich de	Construction and Construction of Construction and Constru	Mancachia Marcachia Marcac	Possedoria Possed	Trailegical Committee Comm	2004.000	68.4 A. Service Control of the Contr	14.4.4. 14.4.4. 14.4.4. 14.5. 14.5.4. 14.5.	Johann M. States and S. Sandari M. Sandari M	Montess and on the Management of the Management	See the contention of the cont	Processor March Medical Security Services March Medical Security Security Services March Medical Security Secur	Memorials forms intercented Mill. Memorials forms	14 May 12	Construction of the Constr	Manual M
Commission 2011 Charlest April 2012 Charlest Apri	Chesses and Chesse	The control of the co	Construction and section of the construction of the construction and construction of the construction of t	Mancachia Marcachia Marcac	Panelshire Panels	Trailegical Committee Comm	2004.2005.	68.4 A. Service Control of the Contr	14.4.4. 14.4.4. 14.4.4. 14.5. 14.5.4. 14.5.	Johann M. States and S. Sandari M. Sandari M	Montess and on the Management of the Management	See the contention of the cont	December 1997 December 1997	Memorials forms intercented Mill. Memorials forms	14 May 12	Comment of the Commen	Manual M
Commission 2007 Commis	Chess and Control of C		Construction and section of the construction of the construction and construction of the construction of t	Marcon Ma	Panelshire Panels	Tradecide Committee Commit	2004.000	68.4 A. Service Control of the Contr	14.4.4. 14.4.4. 14.4.4. 14.5. 14.5.4. 14.5.	Johann M. Statemann, J. Salamann, J. Salaman	Montessing and participation of the Company of the	Seets of the contraction of the	Processors Annual Control of Cont	Memorials forms intercented Mill. Memorials forms	14 May 12	Amen and Market Amen and Amen Amen and	1900 1900
Commission and Commis	Commanded Comm		Controlled a service of the control	Marcon Ma	Panelshire Panels	Tradecide Committee Commit	Total 2005	88.4 A. S.	14.4.4. 14.4.4. 14.4.4. 14.5. 14.5.4. 14.5.	Johann M. Statemann, J. Salamann, J. Salaman	Montessing and participation of the Company of the	Seets of the contraction of the	Decoration and Control of the Contro	Memorials forms intercented Mill. Memorials forms	14 May 12	Amen and Market Amen and Amen Amen and	1900 1900
Commission 2017 Changel And Commission 2017	Comment		Controlled a selection of the controlled and contro	Marcon Ma	Passender	Trainbert de la contra del la contra	2004.000	### A PART OF THE	134.4 (1.4 (1.4 (1.4 (1.4 (1.4 (1.4 (1.4 (Johann M. American S. A. Santan S. Santan S. A. Santan S. Santan	Montes and on the Management of the Management o	Seek missessen statement of the control of the cont	Processor March Medical Security Services March Medical Security Security Services March Medical Security Se	Memorials forms intercention (MA) Memorials forms	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Amend Medical Control And Proceedings of the Control And Process of the Con	1900 1900
Commission 2017 Changel And Commission 2017	Comment		Controlled a selection of the controlled and contro	Marcon Ma	Passender	Tradecide Committee Commit	Total 2005	Section 1	134.4 (1.4 (1.4 (1.4 (1.4 (1.4 (1.4 (1.4 (Johann M. American S. A. Santan S. Santan S. A. Santan S. Santan	Montes and on the Management of the Management o	Seek missessen statement of the control of the cont	Processors of the Control of the Con	Memorials forms intercention (MA) Memorials forms	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Amend Medical Control And Proceedings of the Control And Process of the Con	1900 1900
Commission 2007 Commis	December		Controlled a selection of the controlled and contro	Marcon Ma	Passender	Tradecided Company of the Company of	2004.000	Section 1	14.4.4. 14.4	Johann M. American S. A. Santan S. Santan S. A. Santan S. Santan	Montes and on the Management of the Management o	Seek missessen statement of the control of the cont	Proposed State of the Control of the	Memorials forms internation (MA) Memori		Amenated Registration of Section 1, 19, 19, 19, 19, 19, 19, 19, 19, 19,	1900 1900
Commission 2007 Commis	Company		Controlled a selection of the controlled and contro	Marcon Ma	Passender	Tradecide Company of the Company of	Total 2005	Section 1	14.4.4. 14.4	Johann M. American S. A. Santan S. Santan S. A. Santan S. Santan	Montes and on the Management of the Management o	Seek missessen statement of the control of the cont	Processors March Melonitro National March	Memorials forms internation (MA) Memori		Amenated Registration of Section 1, 19, 19, 19, 19, 19, 19, 19, 19, 19,	1900 1900
Commission 2007 Commis	Company		Controlled a selection of the controlled and contro	Marcon Ma	Passender	Tradecide Company of the Company of	2004.000	Section 1	14.4.4. 14.4	Johann M. American S. A. Santan S. Santan S. A. Santan S. Santan	Montes and on the Management of the Management o	Seek missessen statement of the control of the cont	Processors March Melonitro National March	Memorials forms internation (MA) Memori		Comment of the Commen	1900 1900
Commission 2017 Changel And Commission 2017	Company	The control of the co	Controlled a service of the controlled as services of the controlled as	Marcon Sale. Ma	Passender	Tradecided Company of the Company of	Total 2005	Sec. 1. Sec. 1	114.4	Johann M. State and M. Sandari M.	Monthers and or the Management of the Management	Seek microscopia. Seek microsco	December 1997 December 1997	Memorials forms intercented Mill. Memori		Comment of the control of the contro	1900 1900
Commission 2007 Constitute 2007 Consti	Company		Control of a mellion of the control	Marcon Ma	Proceedings	Tradecide Company of the Company of	Total 2005	Section 19 According to the control of the control	114.4	Johann M. State and M. Sandari M.	Monthers and or the Management of the Management	Seek missessen Anne and a section and a se	Deposition of the Control of the Con	Memorials forms intercented Mill. Memori		Channel March (March March Mar	1900 1900
Commission 2007 Commis	December	A CONTRACTOR OF THE PROPERTY O	Controlled a service of the controlled and controll	Marcon Ma	Passender	Tradecide Company of the Company of	2004.000	### A PART OF THE	14.4.4. 14.4	Johann M. State and M. Sandari M.	Montessing and participation of the Management o	Seets of the control	Processors March Melonitro National March	Memorials forms intercented Mill. Memori		Construction of the Constr	Section Sect
Commission 2007 Constitute 2007 Consti	December	A CONTRACTOR OF THE PROPERTY O	Controlled a service of the controlled and controll	Marcon Ma	Proceedings	Tradecide Company of the Company of	2004.000	### A PART OF THE	114.4	Johann M. State and M. Sandari M.	Montessing and participation of the Management o	Seets of the control	Deposition of the Control of the Con	Memorials forms intercented Mill. Memori		Construction of the Constr	Section Sect
Compared April Comp	December	A CONTRACTOR OF THE PROPERTY O	Controlled a service of the controlled and controll	Marcon Ma	Proceedings	Tradecide Company of the Company of	2004.000	### A PART OF THE	114.4	Johann M. State and M. Sandari M.	Montessing and participation of the Management o	Seets of the control	December 1997 December 1997	Memorials forms intercented Mill. Memori		Amend Medic (Amend Andrews) (A	Manual M
Commission 2017 Commis	December	A CONTRACTOR OF THE PROPERTY O	Controlled a service of the controlled and controll	Marcon Ma	Proceedings	Tradecide Company of the Company of	Total 2005	Sec. 1. Sec. 1	14.4.4. 14.4.	Johann M. Santania Johann F. M. Santania Johanna J	Monthers and or the Management of the Management	Seek missessensen. Seek missessensen. Seek missessensen. Seek missessen. Seek missessen	December 19 Comment of the Comment o	Michael Marchael Marc	14 May 12	Comment of the control of the contro	Section Sect
Commission 2017 Commis	December	A CONTRACTOR OF THE PROPERTY O	Controlled a service of the controlled and controll	Marcon Ma	Proceedings	Tradecide Company of the Company of	Total 2005	Sec. 1. Sec. 1	13.4.4.4. 13.4. 13.4.4. 13.4.4. 13.4.4. 13.4.4. 13.4.4. 13.4.4. 13.4.4. 13.4. 13.4.4.	Johann M. Santania Johann F. M. Santania Johanna J	Monthers and or the Management of the Management	Seek missessensen. Seek missessensen. Seek missessensen. Seek missessen. Seek missessen	December 19 Comment of the Comment o	Michael Marchael Marc	14 May 12	Comment of the control of the contro	Section Sect
Commission of	December	A CONTRACTOR OF THE PROPERTY O	Control of a mellion of the control	Marcon Ma	Proceedings	Tradecide Company of the Company of	2004.000	### A PART OF THE	14.4.4. 14.4.	Johann M. Santania Johann F. M. Santania Johanna J	Montessing and participation of the Management o	Seek missessensen. Seek missessensen. Seek missessensen. Seek missessen. Seek missessen	December 1997 December 1997	Michael Marchael Marc	14 May 12	Comment of the control of the contro	Section Sect

	Garzillo, 2020																	
	Garzillo, 2020	Cross sectional Cross sectional	Non probabilistic	Consecutive sampling Consecutive sampling	Multicenter Multicenter	Prospetively Prospetively	Italy Italy	Jan/2016-Dec/2016 Jan/2016-Dec/2016	47 47	54 54	Urban Urban	Low risk of bias Low risk of bias	Health professionals Health professionals	Medical doctor Nurse	Immunoaruymatic assay Immunoaruymatic assay	Ag HBs C Ag HBs C	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum Serum
	Garzillo, 2020 Garzillo, 2020	Cross sectional Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling	Multicenter Multicenter	Prospetively Prospetively	Itsely Itsely		47 47	54 54	Urban Urban	Low risk of bias Low risk of bias	HCWs not specified Health professionals	HCWs not specified Medical doctor	Immunosruymatic sossy Immunosruymatic sossy	Ac anti-HBs + Ac anti- HBc III Ac anti-HBs + Ac anti- HBc III	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +) Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +)	Serum Serum
Column C	Garzilo 2020 Garzilo 2020	Cross sectional Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling	Multicenter Multicenter	Prospetively Prospetively	Itsely Itsely	Jan/2016-Dec/2018 Jan/2016-Dec/2018	47 47	54 54	Litten Litten	Low risk of bias Low risk of bias	Health professionals HCWs not specified	Nurse HCWs not specified	Immunoanzymatic sassy Immunoanzymatic sassy	Ac anti-HBs + Ac anti- HBc III Ac anti-HBs (> 10 UI/I) III	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +) Immunity against HBV (Ac anti-HBs (> 10 UMI)	Serum Serum
The content of the	Gerahon, 2007	Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling	Multicenter Multicenter	Prospetively Prospetively	Ethiopia United States of America	Jan/2015-Fev/2015 1999-2000	27 59 44	27	Urban Unclean/Not reported	Moderate risk of biss	HCWs not specified	HCWs not specified	Direct ELISA Enzyme immunossasy (EIA)	Ag HBs C	Current HBV infection (Ag HBs +)	Serum Serum
	Gershon, 2007 Gibas, 1992	Cross sectional Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling	Multicenter Monocenter	Prospetively Prospetively	United States of America United States of America	1999-2000 1977-1982	Unclear/Not reported Un	27 nclear/Not reported	Unclear/Not reported Urban	Moderate risk of biss Moderate risk of biss	HCWs not specified HCWs not specified	HCWs not specified HCWs not specified		Ac anti-HBs (> 10 Ul/l)	Immunity against HBV (Ac anti-HBs (> 10 U/U)	Serum Serum
	Goel 2017 Goh. 1988	Cross sectional Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling	Multicenter Multicenter	Prospetively Prospetively	India China	Unclear/ Not reported	28.4 59 Unclear/Not reported Un	nclear/ Not reported	Unclear/ Not reported	Moderate risk of biss	HCWs not specified	HCWs not specified HCWs not specified	Enzyme-linked fluorescence assay (ELFA). Microparticle Enzyme Immunoassay (MEIA) Enzyme immunoassay (EIA)	Ag HBs C	Current HBV infection (Ag HBs +)	Serum Serum
The column	Goldberg, 1999 Goldsmith, 1989	Cross sectional Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling	Monocenter Multicenter	Prospetively Prospetively	United States of America	1995-1997 1986-1987	Unclear/Not reported Un Unclear/Not reported 42	nclear/ Not reported 2.1	Unclear/ Not reported Unclear/ Not reported	Low risk of bias Moderate risk of bias	Health professionals HCWs not specified	Physician HCWs not specified	Enzyme immunossasy (EIA) Enzyme immunossasy (EIA)	Ac are-HBs (> 10 Ul/l) li Ag HBs C	Immunity against HBV (Ac anti-HBs (> 10 UAII) Current HBV infection (Ac HBs +)	Serum Serum
	Gourbran, 1976	Cross sectional	Non probabilistic Probabilistic	Consecutive sampling Simple random sampling	Monocenter Multicenter	Prospetively Prospetively	United Kingdom United States of America	Apr/1975-Sep/1975 Unclear/ Not reported	36 28	65 43	Unclear/ Not reported Unclear/ Not reported	Moderate risk of biss	Health professionals HCWs not specified	Dentist HCWs not specified	Radoimmunosisia: Radoimmunosisia:	Ag HBs C	Current HBV infection (Ag HBs +)	Serum Serum
The content will be content with the content will be content wit	Grady, 1982 Grady, 1982	Cross sectional Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling	Multicenter Multicenter	Prospetively Prospetively	United States of America United States of America	1970 1970	Unclear/Not reported Un Unclear/Not reported Un	nclear! Not reported	Unclear/ Not reported Unclear/ Not reported	Low risk of bias Low risk of bias	HCWs not specified Health management and support personnel	HCWs not specified Administrative staff	Radoimmunossasiv Austome Assav	Ac anti-HBs + Ac anti-HBc III	Current HBV infection (Ag HBs +) Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +)	Serum Serum
The content will be content with the content will be content wit	Grady, 1982 Grady, 1982	Cross sectional Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling	Multicenter Multicenter	Prospetively Prospetively	United States of America United States of America	1970 1970	Unclear/Not reported Un Unclear/Not reported Un	nclear/ Not reported nclear/ Not reported	Unclear/ Not reported Unclear/ Not reported	Low risk of bias Low risk of bias	Health associate professionals Health professionals	Medical laboratory technician Nurse	Auszyme Assay	Ac anti-HBs + Ac anti-HBc III Ac anti-HBs + Ac anti-HBc III	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +) Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +)	Serum Serum
The column The	Grady, 1982 Grady, 1982	Cross sectional	Non probabilistic	Consecutive sampling Consecutive sampling	Multicenter Multicenter	Prospetively Prospetively	United States of America	1970 1970	Unclear/ Not reported Un Unclear/ Not reported Un	nclear/ Not reported	Unclear/ Not reported Unclear/ Not reported	Low risk of bias Low risk of bias	Health professionals Health management and support personnel	Physician Administrative staff	Auszyme Assay Auszyme Assay	Ac anti-HBs + Ac anti- HBc II	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +)	Serum Serum
	Grady, 1982 Grady, 1982	Cross sectional	Non probabilistic	Consecutive sampling	Multicenter Multicenter	Prospetively Prospetively	United States of America United States of America	1970	Unclear/Not reported Un Unclear/Not reported Un	nclear! Not reported	Unclear/ Not reported	Low risk of bias	Health professionals Health nonfessionals	Nutrie Physician	Austyree Assisy Enstyree Assisy	Ac ami-HBs (> 10 U/r) In Ac ami-HBs (> 10 U/r) In	Immunity against HBV (Ac anti-HBs (> 10 UUI)	Serum Serum
The column The	Gutierrez, 2005 Hattar 1985	Cohort (Baseline data)	Non probabilistic	oreacutive sampling	Monocenter Multicenter	Prospetively Prospetively		Aug/1998-Jan/2002 Disclared Not reported		2.5	Unclear/ Not reported	Low risk of bias Moderate risk of bias	HCWs not specified HCWs not specified	HCWs not specified	Immunoersymilis: sessy Parformers massage	Ao HBs C	Current HBV infection (Ag HBs +) Current HBV infection (An HBs +)	Serum Serum
The column The	Hakre, 1995 Hansson, 1977	Cross sectional	Non probabilistic	Consecutive sampling	Multicenter Multicenter	Prospetively Prospetively	Beize Sweden	Jul/1993-Sep/1993	Linches / Not reported 18	15 release Not remoted	Lithan Lindson/ Not reported	Moderate risk of biss I ow risk of biss	HCWs not specified HCWs not specified	HCWs not specified	Auszyme Assay Immuroalartnosmonhousis (IFOR)	Ag HBs C	Current HBV infection (Ag HBs +) Current HBV infection (An HBs +)	Serum Serum
The column The	Hardt, 1979 Hebo, 2019	Cross sectional Cross sectional	Non probabilistic Probabilistic	Consecutive sampling Simple random sampling	Monocenter Monocenter	Prospetively Prospetively	Denmark Ethiopia	1977 Nov(2015-Jan/2016	Unclear/ Not reported Un 25 50	nclear/ Not reported 0.4	Unclear/ Not reported Unclear/ Not reported	Low risk of bias Low risk of bias	Health professionals HCWs not specified	Surgeons HCWs not specified	Radiommunosissay Direct ELISA	Ag HBs C Ag HBs C	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum Serum
The column The	Henderson, 2000 Himmelneich, 2013	Cross sectional Cross sectional	Non probabilistic	oreacutive sampling oreacutive sampling	Monocenter Monocenter	Prospetively Prospetively	Canada Germany	Jan/1992-Aup/1992 Oct/2010-Apr/2012	Unclear/Not reported 13 Unclear/Not reported Un	s o nclear/ Not reported	Urban Urban	Moderate risk of biss Moderate risk of biss	HCWs not specified HCWs not specified	HCWs not specified HCWs not specified	Microarticle Enzyme Immunoassay (MEIA) Unclear Not recorded	Ac anti-HBs + Ac anti- HBc III	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +) Current HBV infection (Ag HBs +)	Serum Serum
The column The	Hischowitz, 1980 Holmann, 1988	Cross sectional	Non probabilistic	Consecutive sampling	Monocenter Multicenter	Prospetively Prospetively	United Kingdom	Jan/1975-Mar/1978	Unclear/Not reported Un Unclear/Not reported Un	nclear! Not reported	Unclear/ Not reported	Moderate risk of biss Moderate risk of biss	Health associate professionals HCWs not spacified		Radiommunologia Parliammunologia	Ag HBs C	Current HBV infection (Ag HBs +) Current HBV infection (An HBs +)	Serum Serum
Part	Hollinger, 1977 Hollinger, 1977	Cross sectional	Non probabilistic	Consecutive sampling	Monocenter Monocenter	Prospetively Prospetively	United States of America	Unclear/ Not reported	Unclear/Not reported Un	nclear/ Not reported	Urban	Moderate risk of biss Moderate risk of biss	Other health service providers not elsewhere classified Other health service providers not alsowhere classified	Medical student intern, Hospital volunteer Medical student intern. Hospital volunteer	Radiommunososay	Ag HBs C	Current HBV infection (Ag HBs +)	Serum Serum
Column	Holt. 1986	Cross sectional	Non probabilistic	onsecutive sampling	Monocenter	Prospetively Respectively	New Zealand	May/1984-Jun/1984	Unclear/Not reported 22	2.1	Unclear/ Not reported	Moderate risk of biss	HCWs not specified	HCWs not specified	Radoimmunossay	Ac anti-HBs + Ac anti-HBc III	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +)	Serum
Column	Hurlen, 1980	Cross sectional	Non probabilistic	oreacutive sampling	Monocenter	Prospetively Respectively	Norway Domant	1979	Unclear/ Not reported	68	Urbanitural Urbanitural	Moderate risk of biss	Health professionals	Dentist Moderal Inhumbres to desiring	Radommunosos y Radommunosos y	Ao HBa C	Current HBV infection (Ag HBs +)	Serum
Column	Ingersley, 1988	Cross sectional	Non probabilistic	oreacutive sampling	Monocenter	Prospetively Prospetively	Denmark Denmark	1987	Unclear/Not reported Un	nclear! Not reported	Unclear/ Not reported	Moderate risk of biss	Health associate professionals	Medical laboratory technician	Radommunosios	Ac anti-HBs + Ac anti-HBc III	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +)	Serum
Column	Irmark, 2010	Cross sectional	Non probabilistic	orsecutive sampling	Monocenter	Prospetively	Turkey	Apr/2006-May/2008	21.12 30	3.6	Unclear/ Not reported	Moderate risk of biss	HCWs not specified	HCWs not specified	Direct ELISA	Ag HBs C	Current HBV infection (Ag HBs +)	Serum
Column	Iserson, 1985	Cross sectional	Non probabilistic	Consecutive sampling	Monocenter	Prospetively	United States of America	Oce1983	Unclear/ Not reported	89	Urban	Moderate risk of biss	Health professionals	Physician	Radommunossay	Ag HBs C	Current HBV infection (Ag HBs +)	Serum
	Janzen, 1978	Cross sectional	Non probabilistic	oreacutive sampling	Monocenter	Prospetively Prospetively	Germany		30.11 35	180	Unclear/ Not reported	Moderate risk of biss	HCWs not socialised	HCWs not specified	Solid chara radioimmunossasy Nove G19A	Ag HBs C	Current HBV infection (Ag HBs +)	Serum
	Jha. 2012	Cross sectional	Non probabilistic	Consecutive sampling	Monocenter	Prospetively	India	Unclear Not reported	31.5 55	3.6	Urban	Moderate risk of biss	HCWs not specified	HCWs not specified	Indirect ELISA	Ac anti-HBs (> 10 Ul/l)	Immunity against HBV [Ac anti-HBs (> 10 U/II)]	Serum
	Kardam, 2014	Cross sectional	Non probabilistic	Consecutive sampling	Monocenter	Prospetively	India	Sep/2012-Oct/2012	Unclear/ Not reported Un	nclear/ Not reported	Urban Urban	Moderate risk of biss Moderate risk of biss	Other health service providers not elsewhere classified	Medical student intern, Hospital volunteer	Report Diagnostic Best	Ag HBs C	Current HBV infection (Ag HBs +)	Serum Serum
	Kashiwagi 1985	Cross sectional	Non probabilistic	onsecutive sampling	Multicenter	Prospetively	Japan Japan	Oct1980-Sep/1983	34.1 27	7.78	Lithan/sural	Moderate risk of biss	HCWs not specified	HCWs not specified	Reverse passive hemopolytication assay	Ag HBs C	Current HBV infection (Ag Hbs +)	Serum Serum
	Kashiwagi, 1985	Cross sectional	Non probabilistic	Consecutive sampling	Multicenter	Prospetively Prospetively	Japan Japan	Oce1980-Sep/1983			Lithanitural Lithanitural	Moderate risk of biss	Health professionals		Reverse passive hemapplatriation assay Reverse passive hemapplatriation assay	Ag HBs	Current HBV infection (Ag HBs +)	Serum
	Kelenie, 1989	Cross sectional	non probabilistic Non probabilistic	oresecutive sampling Consecutive sampling	Monocenter Monocenter	Prospetively Prospetively	Ethiopia	Descrit 3-Dec/2013 Sep/1987			Urban Urban	Moderate risk of biss Moderate risk of biss	Thurs not specified Health management and support personnel	Administrative staff	Enzyme immunosassy (EIA)	Ag HBs C	Current HBV infection (Ag HBs +)	Serum Serum
	Keferie, 1989	Cross sectional	Non probabilistic	oresecutive sampling Consecutive sampling	Monocenter Monocenter	Prospetively Prospetively	Ethiopia Ethiopia	Sep/1987	30.5 48	16	Lithan	Moderate risk of biss Moderate risk of biss	resen management and support personnel Health associate professionals	Administrative staff Medical assistant	Enzyme immunosassy (EIA)	Ag HBs C	Current HBV infection (Ag HBs +)	Serum
	Keterie, 1989 Keterie, 1989	Cross sectional Cross sectional	Non probabilistic Non probabilistic	orescutive sampling orescutive sampling	Monocenter Monocenter	Prospetively Prospetively	Ethopia Ethopia	Sep/1987 Sep/1987	30.5 48 30.5 48	16	Urban Urban	Moderate risk of biss Moderate risk of biss	Health associate professionals Health professionals	Medical laboratory technician Nurse	Enzyme immunossasy (EIA) Enzyme immunossasy (EIA)	Ag HBs C	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum Serum
	Keterie, 1989 Keterie, 1989	Cross sectional Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling	Monocenter Monocenter	Prospetively Prospetively	Ethiopia Ethiopia	Sep/1987 Sep/1987	30.5 48 30.5 48	16	Urban Urban	Moderate risk of biss Moderate risk of biss	Health management and support personnel Health management and support personnel	Administrative staff Administrative staff	Enzyme immunossay (EIA) Enzyme immunossay (EIA)	Ac anti-HBs + Ac anti- HBc III Ac anti-HBs + Ac anti- HBc III	Immune due to natural infection (Ac anti-HISs + Ac anti-HISc +)	Serum Serum
	Keterie, 1989 Kelerie, 1989	Cross sectional Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling	Monocenter Monocenter	Prospetively Prospetively	Ethiopia Ethiopia	Sep/1987 Sep/1987	30.5 48 30.5 48	16	Lithan Lithan	Moderate risk of biss Moderate risk of biss	Health associate professionals Health associate professionals	Medical assistant Medical laboratory technician	Enzyme immunossasy (EIA) Enzyme immunossasy (EIA)	Ac anti-HBs + Ac anti- HBc III Ac anti-HBs + Ac anti- HBc III	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +) Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +)	Serum Serum
Column	Kessler, 1985 Kessler, 1985	Cross sectional Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling	Monocenter Monocenter	Prospetively Prospetively	United States of America United States of America	Jan/1983-Feb/1983: Mar/1983-Nov/1983 Jan/1983-Feb/1983: Mar/1983-Nov/1983	Unclear/Not reported Un Unclear/Not reported Un	nctear/ Not reported nctear/ Not reported	Lithan Lithan	Moderate risk of biss Moderate risk of biss	Health associate professionals Health professionals	Medical laboratory technician Physician	Radiommunososay	Ag HBs C	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum Serum
Mary	Kessler, 1985 Kessler, 1985	Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling	Monocenter Monocenter	Prospetively Prospetively	United States of America United States of America	Jan/1983-Feb/1983: Mar/1983-Nov/1983 Jan/1983-Feb/1983: Mar/1983-Nov/1983	Unclear/ Not reported Un Unclear/ Not reported Un	nclear/ Not reported nclear/ Not reported	Urban Urban	Moderate risk of biss Moderate risk of biss	Health associate professionals Health professionals	Medical laboratory technician Nurse	Radoimmunososay Radoimmunososay	Ac anti-HBs + Ac anti- HBc III Ac anti-HBs + Ac anti- HBc III	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +) Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +)	Serum Serum
Mary	Kessler, 1985 King, 1987	Cross sectional Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling	Monocenter Multicenter	Prospetively Prospetively		Jan/1983-Feb/1983; Mar/1983-Nov/1983 Mar/1985-Aug/1985	Unclear/ Not reported Un Unclear/ Not reported Un	nclear/ Not reported nclear/ Not reported	Urban Urban	Moderate risk of bias Moderate risk of bias			Radoimmunossay Radoimmunossay	Ac anti-HBs + Ac anti- HBc III Ag HBs C	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +) Current HBV infection (Ag HBs +)	Serum Serum
Mary	Kisangau, 2019 Kisangau, 2019	Cross sectional Cross sectional	Probabilistic Probabilistic	Simple random sampling Simple random sampling	Multicenter Multicenter	Prospetively Prospetively	Kenya Kenya	May/2017-Jun/2017 May/2017-Jun/2017	31 35 31 35	12	Unclear/ Not reported Unclear/ Not reported	Low risk of bias Low risk of bias	HCWs not specified HCWs not specified	HCWs not specified HCWs not specified	Direct ELISA Indirect ELISA	Ag HBs C Ac anti-HBs (> 10 Ul/l) Is	Current HBV infection (Ag HBs +) Immunity against HBV [Ac anti-HBs (> 10 UN)]	Serum Serum
Mary	Klimek, 1985 Kondii, 2007	Cross sectional Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling	Multicenter Monocenter	Prospetively Prospetively	United States of America		Unclear/Not reported Un Unclear/Not reported Un	nclear/ Not reported inclear/ Not reported	Urban/sural Urban	Low risk of bias Moderate risk of bias	HCWs not specified Health management and support personnel	HCWs not specified Administrative staff	Radoimmunosissay Enzyme immunosissay (EIA)	Ac anti-HBs (> 10 Ul/l) In Ac HBs C	Immunity against HBV (Ac anti-HBs (> 10 UAII) Current HBV infection (Ac HBs +)	Serum Serum
Mary	Kondii, 2007 Kondii, 2007	Cross sectional Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling	Monocenter Monocenter	Prospetively Prospetively	Abaria Abaria	Jan2004 Jan2004	Unclear/Not reported Un Unclear/Not reported Un	nclear/ Not reported nclear/ Not reported	Urban Urban	Moderate risk of bias Moderate risk of bias	HCWs not specified Health professionals	HCWs not specified Physician	Enzyme immunoassay (EIA) Enzyme immunoassay (EIA)	Ag HBs C Ag HBs C	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum Serum
Mary	Köse, 2010 Kosgeroglu, 2004	Cross sectional Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling	Monocenter Multicenter	Prospetively Prospetively	Turkey Turkey	Jan/2003-Dec/2008 Aug/2002-Jan/2003	Unclear/Not reported 41 Unclear/Not reported Un	1.3 nclear/Not reported	Urban Urban	Low risk of bias Moderate risk of bias	HCWs not specified Health professionals	HCWs not specified Nurse	Indirect ELISA Direct ELISA	Ac arti-HBs (> 10 Ul/l) ls Ag HBs	Immunity against HBV (Ac anti-HBs (> 10 UMI) Current HBV infection (Ag HBe +)	Serum Serum
Mary	Kosperoplu 2004 Kuhis, 1987	Cross sectional Cohort (Baseline data)	Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling	Multicenter Monocenter	Prospetively Prospetively	Turkey United States of America	Aug/2002-Jan/2003 Mar/1984-Nov/1984	Unclear/Not reported Un Unclear/Not reported 0.0	nclear/ Not reported 0	Urban Urban	Moderate risk of biss Moderate risk of biss	Health professionals HCWs not specified	Nurse HCWs not specified	Direct ELISA Enzyme immunosssay (EIA)	AqHBs C AqHBs C	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum Serum
Mary	Kunches, 1983 Kunst, 1973	Cross sectional Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling	Monocenter Monocenter	Prospetively Prospetively	United States of America Netherlands	1989 -1972	Unclear/Not reported 90 Unclear/Not reported Un	0.8 nclear/Not reported	Urban Urban	Low risk of bias Low risk of bias	HCWs not specified HCWs not specified	HCWs not specified HCWs not specified	Radioimmunosisiar Immunodiffusion, countercurrent electrophoresis	Ag HBs C Ag HBs C	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum Serum
Mary	Kuruspum, 2008 Kuruspum, 2008	Cross sectional Cross sectional	Non probabilistic	Consecutive sampling Consecutive sampling	Monocenter Monocenter	Prospetively Prospetively	Turkey	Jan/2001-Jan/2007 Jan/2001-Jan/2007	30.1 29	2.7	Urban Urban	Low risk of bias Low risk of bias	HCWs not specified HCWs not specified	HCWs not specified HCWs not specified	Chemituminescent enzyme immunossasy (CLEIA) Chemituminescent enzyme immunossasy (CLEIA)	Ag HBs + IgM anti-HBc A Ag HBs C	Acutely infected (Ag HBs + IgM anti-HBc +) Current HBV infection (Ag HBs +)	Serum Serum
Authors	Kyelem, 2015 Lanphear, 1993	Cross sectional Cross sectional	Non probabilistic	Consecutive sampling Consecutive sampling	Monocenter Monocenter	Prospetively Retrospectively	Burkina Faso United States of America	Mar/2012-aps/2012 1980-1989	43.6 65 Unclear/Not reported Un	s.6 nclear/ Not reported	Urban Urban	Moderate risk of biss Low risk of bias			Chemituminescent enzyme immunossasy (CLEIA) Enzyme immunossasy (EIA). Radioimmunossasy	Ag HBs C Ag HBs C	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum Serum
Authors	Levy, 1977 Levis, 1973	Cross sectional Cross sectional	Non probabilistic	Consecutive sampling Consecutive sampling	Monocenter Monocenter	Prospetively Prospetively	United States of America United States of America	Dec/1974-Feb/1975 Unclear/ Not reported	Unclear/Not reported Un Unclear/Not reported	nclear/ Not reported 53	Urban Undear/Not reported	Low risk of bias Low risk of bias	HCWs not specified HCWs not specified	HCWs not specified HCWs not specified	Radiommunosissar Radiommunosissar	Ag HBs C Ag HBs C	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum Serum
Authors	Leyden, 1985 Locquet, 2007	Cross sectional Cross sectional	Non probabilistic	Consecutive sampling Consecutive sampling	Monocenter Monocenter	Prospetively Retrospectively	United States of America France	Dec/1983 Jan/1997-Dec/2000	Unclear/Not reported Un	nclear/ Not reported 0	Unclear/ Not reported Urban	Moderate risk of biss Moderate risk of biss	Health professionals HCWs not specified	Medical doctor HCWs not specified	Radioimmunosissay Enzyme immunosissay (EIA)	Ag HBs C Ac anti-HBs (> 10 Ul/l)	Current HBV infection (Ag HBs +) Immunity against HBV (Ac anti-HBs (> 10 UM)	Serum Serum
Column	Luksamianukul. 2001 Luke 1989	Cross sectional	Non probabilistic	Consecutive sampling	Monocenter Monocenter	Prospetively Prospetively	Thailand Kerwa	Oct/1997-Mar/1998	35.6 Unriess/Not reported Un	22 release Not remoted	Unclean Not reported		HCWs not specified Other health service requirers are alsowhere classified	HCWs not specified Modical student intern. Housing with reserve				Serum Unrigan Not reported
Column	Lv. 2014	Cross sectional	Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling	Monocenter Monocenter	Prospetively Prospetively	Democratic Republic of the Congo United States of America	Ocs/2015-Aug/2016 Unclear/ Not reported	41.2 56 Unclear/ Not reported 23	3.7	Urban Urban		HCWs not specified HCWs not specified	HCWs not specified HCWs not specified	Direct ELISA Chemikuminiscent enzyme immunosissav (CLEIA)	Ag HBs C Ag HBs C	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum Serum
March Marc	Ly. 2014 Malm. 1988	Cross sectional	Non probabilistic			Prospetively Prospetively	United States of America Canada	Unclear Not reported		5.1 noteon/ Not removed.	Lithan Lithan	Moderate risk of biss I ow risk of biss	HCWs not specified	Anaesthetists	Chemitamines cent enzyme immunoassay (CLEIA) Bartinimus possoay	Ac ami-HBs (> 10 U/l) In An HBs (Immunity against HBV [Ac anti-HBs (> 10 UUI)] Current HBV infection (An HBs +)	
March Marc	Malm, 1986 Malm, 1986	Cross sectional		Consecutive sampling	Multicenter Multicenter	Prospetively Prospetively	Canada	Unclear/ Not reported		nclear/ Not reported	Urban	Low risk of bias	Other health service providers not elsewhere classified Other health service providers not alsowhere classified	Medical student intern, Hospital volunteer Modical student intern. Hospital volunteer	Radiommunososay	Ag HBs C	Current HBV infection (Ag HBs +) Immune the to making infection (Ac enti-HRs + Ac enti-HRs +)	Serum
March Marc	Marena, 1995	Cross sectional	Non probabilistic	onsecutive sampling	Monocenter	Prospetively Respectively	Italy Bestumi	Jan/1993-Nov/1993	33.1 61	2	Urban Likeboor/Net concerned	Low risk of bias	HCWs not specified	HCWs not specified	Enzyme immunossasy (EIA)	Ao HBa C	Current HBV infection (Ag HBs +)	Serum
March Marc	Martin, 1986 Massacuni, 2018	Cross sectional	Non probabilistic	Consecutive sampling	Monocenter	Prospetively Prospetively	United States of America Sierra Leone	Unclear/ Not reported On/2017	Unclear/Not reported Un Unclear/Not reported 27	nclear/ Not reported	Runal Lindson/ Not reported	Moderate risk of biss Moderate risk of biss	HCWs not specified Health nonfessionals	HCWs not specified	Radommunososav			Serum
March Marc	Messaguoi 2018 Memon 2012										Linciago/ Not reported					Ac anti-HBs + Ac anti- HBc III	Common MRV informing (As MRs. 1)	Con-m
	Mindez-Sánchez, 2006		Non nenhahilistic	Consecutive sampling	Monocenter Monocenter Monocenter	Prospetively Prospetively			41 07 13	14	Unclear/ Not reported	Moderate risk of biss	Health professionals HCWs not specified	Nurse Nurse HCWs not snacified	Lateral flow sessing (LFA) Lateral flow sessing (LFA) Chamber flow sessing (LFA)	Ac anti-HBs + Ac anti-HBc III Ag HBs + Ac anti-HBc III An HBs + Ac anti-HBc III	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +)	Serum Serum
	Mosendarie 2012	Cross sectional	Non nenhahilistic	Consecutive sampling Consecutive sampling Consecutive sampling	Monocenter Monocenter Monocenter Monocenter	Prospetively Prospetively Prospetively Prospetively			Unclear/ Not reported 27 41,07 13 30.8 2:1	12	Unclear/ Not reported Urban	Moderate risk of biss Low risk of biss Moderate risk of biss Moderate risk of biss	Health professionals HCWs not specified Health professionals Health professionals	Nurse Nurse HCWs not specified Nurse	Lateral Row solary (LFA) Lateral Row solary (LFA) Chemistrian and suppose immunosolary (CLEIA) Chemistrian cent empress immunosolary (CLEIA) Lateral Row (LEIA)	Ac anti-HBs + Ac anti-HBc III Ac HBs C Ac anti-HBs + Ac anti-HBc III Ac HBs C Ac HBs C Ac HBs C	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +) Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum Serum Serum
A. S. C.	CONTRACTOR AND A	Cross sectional Cross sectional Cross sectional Cross sectional	Non nenhahilistic	Consecutive sampling Consecutive sampling	Monocenter Monocenter Monocenter Monocenter Monocenter Monocenter Monocenter	Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively			30.8 2: 33.3 27 Unclear/Not reported 4.3	1.4 12 18	Unclear/ Not reported Urban Unclear/ Not reported Unclear/ Not reported	Moderate mik of biss Low risk of biss Moderate risk of biss Moderate risk of biss Low risk of biss Low risk of biss	Health professionals HEW's not specified Health professionals HCW's not specified Health professionals	Nazise Nazise HCWs not specified Nazise HCWs not specified Nazise Nazise	James December FA James December James	Ac ami-HBs + Ac anti-HBc III Ac Anti-HBs + IIII Ac Anti-HBs + IIII Ac Anti-HBc III Ac Anti-HBc III Ac Anti-HBc III Ac Anti-HBc III Anti-HBc III Anti-HBc III Anti-HBc III	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +) Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum Serum Serum Serum Serum Serum Serum
A. S.	Mosendane, 2012 Mosendane, 2012	Cross sectional Cross sectional Cross sectional Cross sectional	Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling	Monocenter	Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively	Searra Lacine Palicistan Massico Carnescon South Africa South Africa	Jan 2007 - Dec (2008 Unclear) Not reported Unclear) Not reported Unclear) Not reported Mar (2008 - Nov (2008 Mar (2008 - Nov (2008	\$107 \$2.50.8 \$	1.4 12 18	Unclear Not reported Urban Unclear Not reported Unclear Not reported Unclear Not reported Unclear Not reported Unclear Not reported	Moderate risk of base Low risk of base Moderate risk of base Moderate risk of base Low risk of base	Health professionals How The Committee of the Committee	Nurse HCWs not specified Nurse HCWs not specified Nurse Nurse Nurse Nurse Nurse	Learnel flow issues AFA1 Commitment flow issues AFA1 Commitment flow issues AFA1 Commitment flow issues AFA1 Commitment flow issues AFA1 Londows ELISA International AFA1 Internati	Ac anti-HSs + Ac arti-HSc Ac Ac HSs Ac anti-HSs + Ac arti-HSc Ac HSs Ac Ac HSs Ac Ac HSs Ac HSs Ac HSs Ac Ac HSs Ac	Immane due to material infeccion (Ac seth-HBs + Ac seth-HBs +) Convent HBV infeccion (Ac) HBs +) Convent HBV infeccion (Ac) HBs +) Immane due to material infeccion (Ac seth-HBs + Ac seth-HBs +) Immane due to material infeccion (Ac seth-HBs + Ac seth-HBs +) Convent HBV infeccion (Ac) HBs +) Immane due to material infeccion (Ac seth-HBs + Ac seth-HBs +) Immane due to material infeccion (Ac seth-HBs + Ac seth-HBs +)	Serum Serum Serum Serum Serum Serum Serum Serum
March Marc	Mosendane, 2012	Cross sectional Cross sectional Cross sectional Cross sectional Cross sectional	Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling	Monocenter	Prospatively	Searra Lacine Palicistan Massico Carnescon South Africa South Africa	Jan 2007 - Dec (2008 Unclear) Not reported Unclear) Not reported Unclear) Not reported Mar (2008 - Nov (2008 Mar (2008 - Nov (2008	# 107 12 20 20 20 20 20 20 20 20 20 20 20 20 20	1.4 12 7.6 7.7 7.7	Urban Unclear/ Not reported	Moderate risk of biss Moderate risk of biss Low risk of biss Low risk of biss Low risk of biss Low risk of biss Moderate risk of biss	Health confensionals HibWa not specified Health confensionals Health confensionals Health confensionals Health confensionals Health confensionals	HCWs not specified Notice Notice Notice Notice Notice Notice Notice Notice	Same of the same of EAS Same of EA	Ac anti-HBs + Ac anti-HBs 1 Ac HBs C Ac anti-HBs + Ac anti-HBs C Ac anti-HBs + Ac anti-HBs Ac HBs + HBs C Ac anti-HBs + Ac anti-HBs Ac HBs + HBs Ac anti-HBs Ac anti-HBs	Internace dus to calastral infection (Ac sedi-198a + Ac anti-198c +) Control 1980 infection (Ap 198a +) Accolor infection (Ap 198a +) Internace dus to calastral infection (Ap 198a +) Internace dus t	Serum
Column C	Mosendane, 2012	Cross sectional	Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic	ornacutive sampling creacutive sampling creacutive sampling creacutive sampling creacutive sampling creacutive sampling creacutive sampling creacutive sampling creacutive sampling creacutive sampling	Monocenter	Prospetively	Satria Leonii Paliotain Mexico Germanoon South Africa South Africa South Africa South Africa Linited States of America Tarcarela Tarcarela	New York	1 107 13 30.5 27 33.3 27 33.3 27 10-inser/Not reported 1-incluser/Not reported 30-incluser/Not reported 30-	1.4 12 7.6 7.7 7.7	Lithian Lindear/ Not reported	Moderate risk of biss Moderate risk of biss Low risk of biss Moderate risk of biss Low risk of biss	Health nodesasionals HOWs not specified Health nodesasionals Health nodes	HCWs not specified Notice Notice Notice Notice Notice Notice Notice Notice	Immorphistic III Counter-immorphistrophorphis test Engine immorphistrophorphis test Engine immorphism (EIA) Engine immorphism (EIA)	Ac anti-HBs (> 10 Ul/l) Is Ag HBs C Ag HBs C Ac anti-HBs (> 10 Ul/l) Is	Immune da be a material referencios (De restri Mine a De des 1-10e e a). Contrart Mini Vincinso (De Min a). Contrart Mini Vincinso (De Min a). Contrart Mini Vincinso (De Min a). Contrart Mini Vincinso (De Mini a).	Serum
Column C	Mosendane, 2012	Cross sectional	Non probabilistic	ornacutive sampling creacutive sampling creacutive sampling creacutive sampling creacutive sampling creacutive sampling creacutive sampling creacutive sampling creacutive sampling creacutive sampling	Monocenter	Prospostedy	Satria Leonii Paliotain Mexico Germanoon South Africa South Africa South Africa South Africa Linited States of America Tarcarela Tarcarela	New York	51.07 3.3 50.8 2.2 53.3 3.5 52.7 53.3 3.5 52.7 53.3 3.5 52.7 53.3 3.5 52.7 53.3 3.5 52.7 53.3 3.5 52.7 53.3 3.5 52.7 53.3 3.5 52.7 53.3 3.5 52.7 53.3 3.5 52.7 52.7 52.7 52.7 52.7 52.7 52.7 52	1.4 12 1.5 7 7 7 7 7 7 7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	Lithian Lindear/ Not reported	Moderate risk of biss Moderate risk of biss Low risk of biss Moderate risk of biss Low risk of biss	Health nodesasionals HOWs not specified Health nodesasionals Health nodes	North Comments and	Immorphistic III Counter-immorphistrophorphis test Engine immorphistrophorphis test Engine immorphism (EIA) Engine immorphism (EIA)	Ac anti-HBs (> 10 Ul/l) Is Ag HBs C Ag HBs C Ac anti-HBs (> 10 Ul/l) Is	Immune da be a material referencios (De restri Mine a De des 1-10e e a). Contrart Mini Vincinso (De Min a). Contrart Mini Vincinso (De Min a). Contrart Mini Vincinso (De Min a). Contrart Mini Vincinso (De Mini a).	Serum
Column C	Mosendane, 2012	Cross sectional	Non probabilistic	ornacutive sampling creacutive sampling creacutive sampling creacutive sampling creacutive sampling creacutive sampling creacutive sampling creacutive sampling creacutive sampling creacutive sampling	Monocenter	Proceeded Procee	Souri Licone Palistan Maiston Caramison South Affects South Affects South Affects South Affects South Affects South Affects Industrial Transcript Transcript Transcript Transcript Japanes	National Content	51.07 3.3 50.8 2.2 53.3 3.5 52.7 53.3 3.5 52.7 53.3 3.5 52.7 53.3 3.5 52.7 53.3 3.5 52.7 53.3 3.5 52.7 53.3 3.5 52.7 53.3 3.5 52.7 53.3 3.5 52.7 53.3 3.5 52.7 52.7 52.7 52.7 52.7 52.7 52.7 52	1.4 12 1.5 7 7 7 7 7 7 7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	Lithian Lindear/ Not reported	Moderate risk of biss Moderate risk of biss Low risk of biss Moderate risk of biss Low risk of biss	Health nodesasionals HOWs not specified Health nodesasionals Health nodes	Morris MCWS not specified MCWS not specified Marie Narie Narie Narie Narie Narie Hirth and specified HCWS not specified HCWS not specified HCWS not specified MCWS not specified	Immonissian III. Contain-immonissian Containin III. Engine in Primonissia (III.) Engine in Primonissia (III.) Engine in Primonissia (III.) Containin III. Containin III.	Ac ami-HBs (> 10 UM) III Ag HBs C Ac ami-HBs (> 10 UM) III Ag HBs C Ac ami-HBs (> 10 UM) III Ag HBs C Ag HBs C Ac ami-HBs (> 10 UM) III Ag HBs	immune, data se material referencia (h. ser 1996a - 5 de not 1996a - 1 mentre 1996 - 2 desira (h. ser 1996a - 1 mentre 1996 - 2 desira (h. ser 1996a - 1 mentre data se material referencia (h. ser 1996a - 1 mentre data se material referencia (h. ser 1996a - 1 mentre data se material referencia (h. ser 1996a - 1 mentre data se material referencia (h. ser 1996a - 1 mentre data se material referencia (h. ser 1996a - 1 mentre 1996a - 1	
Column C	Mosendane, 2012	Cross sectional	Non serbahliste. Non serbahliste	evisica tibra atemplara consecutiva atemplara consecutiva c	Monocenter Multicenter Multicenter Multicenter	Prospetively Prospetively	Souri Licone Palistan Maiston Caramison South Affects South Affects South Affects South Affects South Affects South Affects Industrial Transcript Transcript Transcript Transcript Japanes	National Content	1107 13 20 2 2 2 20 3 3 3 3 2 20 3 3 3 3 2 20 3 3 3 3 3 2 20 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1.4 12 1.5 7 7 7 7 7 7 7 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0	Lithian Lindear/ Not reported	Moderate risk of biss Moderate risk of biss Low risk of biss Moderate risk of biss Low risk of biss	Health nodesasionals HOWs not specified Health nodesasionals Health nodes	North Service and specified Service	Immonissiary IX Contain-Immonissiary IX Engine in Principale Tradition IX Engine in Principale IX Engine IX (IX) Engine IX Engine	Ac ami-HBs (> 10 UM) III Ag HBs C Ac ami-HBs (> 10 UM) III Ag HBs C Ac ami-HBs (> 10 UM) III Ag HBs C Ag HBs C Ac ami-HBs (> 10 UM) III Ag HBs	immune, data se material referencia (h. ser 1996a - 5 de not 1996a - 1 mentre 1996 - 2 desira (h. ser 1996a - 1 mentre 1996 - 2 desira (h. ser 1996a - 1 mentre data se material referencia (h. ser 1996a - 1 mentre data se material referencia (h. ser 1996a - 1 mentre data se material referencia (h. ser 1996a - 1 mentre data se material referencia (h. ser 1996a - 1 mentre data se material referencia (h. ser 1996a - 1 mentre 1996a - 1	Serum
Column C	Mosendane, 2012	Cross sectional	Non erchabilistic	criserative standing cressives standing cressives standing consistent consistent consistent consistent consistent consistent consistent consistent consistent consistent consistent consistent consistent cons	Monros enter Multicanitar Multicanitar Multicanitar Multicanitar Multicanitar	Prospetively Prospetively	Souri Licone Palistan Maiston Carrenson South Affects South Affects South Affects South Affects South Affects South Affects Industrial Transcript Transcript Transcript Transcript Japanes	National Content	1107 13 20 2 2 2 20 3 3 3 3 2 20 3 3 3 3 2 20 3 3 3 3 3 2 20 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1.4	Lithian Lindear/ Not reported	Moderate risk of biss Moderate risk of biss Low risk of biss Moderate risk of biss Low risk of biss	Health nodesasionals House nodesasionals Health nodesasionals	North Service and specified Service	Immonissiary IX Contain-Immonissiary IX Engine in Principale Tradition IX Engine in Principale IX Engine IX (IX) Engine IX Engine	Ac ami-HBs (> 10 UM) III Ag HBs C Ac ami-HBs (> 10 UM) III Ag HBs C Ac ami-HBs (> 10 UM) III Ag HBs C Ag HBs C Ac ami-HBs (> 10 UM) III Ag HBs	The control of the co	Serum Serum Serum
Control Cont	Monoserstane. 2012 Monoley. 1975 Monible. 2015 Monible. 2015 Monible. 2015 Monible. 2015 Monible. 2015 Monoley. 2017 Nacow. 20	Onosa sectional Prossa sectio	Non erchabilistic	Consection sampling Consection sampling	Monocenter	Prospetively Prospetively	Solitation Contraction Contrac	Jacquary Designation of the Committee of	1107 13 20 2 2 2 20 3 3 3 3 2 20 3 3 3 3 2 20 3 3 3 3 3 2 20 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1.4	Libban Lindeaur Niet reported Lindeaur Lindeaur Niet reported Lindeaur L	Modemen risk of hise Modemen risk of hise Love risk of hise Modemen risk of hise Modemen risk of hise Modemen risk of hise Modemen risk of hise	Table professionals	Moreira Service and American Moreira	Contractants II. Context memorisation to the Contractants III. Context memorisation to the Contractants III. Contract memorisation III. Contractants III. Contra	Ac arti-198 to 10 LBD 10 Ac arti-198 to 10 Ac arti-198	Security of the control of the contr	Serum Serum Serum
Part	Monoserstane. 2012 Monoley. 1975 Monible. 2015 Monible. 2015 Monible. 2015 Monible. 2015 Monible. 2015 Monoley. 2017 Nacow. 20	Onosa sectional Prossa sectio	Non serubabilistic Non serubabil	Consection sampling Consection sampling	Monocenter	Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively	Solitation Contraction Contrac	Jacquary Designation of the Committee of	1107 13 20 2 2 2 20 3 3 3 3 2 20 3 3 3 3 2 20 3 3 3 3 3 2 20 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1.4	Libban Lindeaur Niet reported Lindeaur Lindeaur Niet reported Lindeaur L	Modemen risk of hise Modemen risk of hise Love risk of hise Modemen risk of hise Modemen risk of hise Modemen risk of hise Modemen risk of hise	Table professionals	Moreira Service and American Moreira	Contractants II. Context memorisation to the Contractants III. Context memorisation to the Contractants III. Contract memorisation III. Contractants III. Contra	Ac arti-198 to 10 LBD 10 Ac arti-198 to 10 Ac arti-198	Security of the control of the contr	Setum Setum Setum Setum Setum Setum Setum Setum
Part	Monarchen 2012 Monarchen 2012 Monarch 2015 Monarch 2017 M	Costs sectional	Non serbahilistic	Consection sampling Consection sampling Consection Con	Monocentrie	Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively	Solitation Contained on Contain	American Securities American	1107 13 20 2 2 2 20 3 3 3 3 2 20 3 3 3 3 2 20 3 3 3 3 3 2 20 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1.4 12 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	Libban Lindsear Niet reported Lindsear Niet nerorited	Molestera risk of blaze Molestera risk of blaze Lear risk of blaze Molestera risk of blaze	The discontinued of the continued of the	More . Section of the control of the	Constitution 1. Constitution 1	Ac amari-1984 to 10 Mill Aca 1984 to 10 Mill Aca 1984 to 10 Mill Aca 1984 to 10 LEO to 10 Aca 1984 to 10 LEO to 10 Aca 1984 to 10 LEO to 10 Mill Aca 1984 to	The control of the co	Setum Setum Setum Setum Setum Setum Setum Setum
Part Color	Monarcine 2012 Monarcine 2012 Monarcine 2017 Monarcine 2017 Monarcine 2018 Monarcine 2018 Monarcine 2018 Monarcine 2018 Monarcine 2018 Monarcine 2018 Monarcine 2019 Monarcine 2019 Monarcine 2017 Monarc	Coops assistant	Non serbahilistic	Consection samples consection co	Monocentrial	Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively	Delimber Montes	All Control Co	1107 13 20 2 2 2 20 3 3 3 3 2 20 3 3 3 3 2 20 3 3 3 3 3 2 20 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1.4 1.2 2.2 2.8 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7 2.7	Listans Horisaur Niet reported Lincisaur Ni	Montement rais of bisses. Montement rais of bisses. Montement rais of bisses. Letter risks of bisses. Montement rais of bisses. Letter risks of bisses. Montement rais in bisses. Montement rais of bisses. Letter risks of bisses.	The discontinued of the control of t	Abolic Self-Your Law Self-You and American S	Constitution III. Constitution	Ac amarifest to UAET Ac amarif	The control of the co	Setum Setum Setum Setum Setum Setum Setum Setum
Page Column Col	Monarcine 2012 Monarcine 2012 Monarcine 2017 Monarcine 2017 Monarcine 2018 Monarcine 2018 Monarcine 2018 Monarcine 2018 Monarcine 2018 Monarcine 2018 Monarcine 2019 Monarcine 2019 Monarcine 2017 Monarc	Coops assistant	Non restabilities	Consection samples consection co	Monocentrial	Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively	Delimber Montes	All Control Co	1107 13 20 2 2 2 20 3 3 3 3 2 20 3 3 3 3 2 20 3 3 3 3 3 2 20 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	1.4 1.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2 2.2	Listans Horisaur Niet reported Lincisaur Ni	Montement rais of bisses. Montement rais of bisses. Montement rais of bisses. Letter risks of bisses. Montement rais of bisses. Letter risks of bisses. Montement rais in bisses. Montement rais of bisses. Letter risks of bisses.	The discontinued of the control of t	Abolic Self-Your Law Self-You and American S	Constitution III. Constitution	Ac amarifest to UAET Ac amarif	The control of the co	Setum Setum Setum Setum Setum Setum Setum Setum
Page Column Col	Monarcine 2012 Monarcine 2012 Monarcine 2017 Monarcine 2017 Monarcine 2017 Monarcine 2018 Monarcine 2018 Monarcine 2018 Monarcine 2018 Monarcine 2017 Monarc	Coops assistant Coops assistan	Non-metabolistis.	Consecution sampling consecution	Monocentries	Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively	positions of the control of the cont	AMORDIA (AMORDIA) AMORDIA (AMO	2006 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1.4.1 12.7 16.7 17.7 17.7 17.7 19.8 18.8 18.9 18.9 18.9 18.9 18.9 18.9	Listone Visit reported Visit reported Listone Visit reported	Modement risk of himse Loop risk of himse	The decision of the control of the c	About Section of the	Sometimens II. Contract contracts III.	An americal Paris 10 (ART) And 10 (ART) ART ART ART ART ART ART ART	The control of the co	Setum Setum Setum Setum Setum Setum Setum Setum
Page Column Col	Meanscriene, 2012 Manufacture, 2012 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2017 Manufacture, 2013 Manufacture,	Cross a sectional	Non-metabolistis.	Consecution sampling consecution con	Monocentries	Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively Prospetively	American Sent Artista Sent Arti	Account of the Committee of the Committe	2024 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.4.1 1.7. 7. 7. 7. 7. 7. 7. 7. 9. 1.9. 1.9	Litham Chemistry Stemson and Chemistry Stems	Monimum risk of hims Monimum risk of hims Monimum risk of hims Lour risk of hims Lou	The discussion of the control of the	Andrew Control of the	Sometimens II. Contract contracts III.	An americal Paris 10 (ART) And 10 (ART) ART ART ART ART ART ART ART	The control of the co	Setum Setum Setum Setum Setum Setum Setum Setum
Page Column Col	Meanscriene, 2012 Manufacture, 2012 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2017 Manufacture, 2013 Manufacture,	Cross a sectional	Non-restablisher	Commencione assertione concentration assertione assertion	Mannacenter	Prosperiorly Restrangement Restrangement Restrangement Restrangement Restrangement Restrangement Prosperiorly Restrangement Restrangement Restrangement Restrangement Prosperiorly Restrangement Re	American Sent Artista Sent Arti	Account of the Committee of the Committe	2024 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.4.1 2.6 7. 7. 7. 7. 7. 7. 9. 9. 1.8 1.8 1.8 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9	Litham Chemistry Stemson and Chemistry Stems	Monimum risk of hims Monimum risk of hims Monimum risk of hims Lour risk of hims Lou	The discussion of the control of the	Andrew Control of the	Sometimens II. Contract contracts III.	An americal Paris 10 (ART) And 10 (ART) ART ART ART ART ART ART ART	The control of the co	Setum Setum Setum Setum Setum Setum Setum Setum
Page Column Col	Meanscriene, 2012 Manufacture, 2012 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2017 Manufacture, 2013 Manufacture,	Cross a sectional	Non restabilitation Non restabilitation	Consecution samples manifest control to the control	And the content of th	Prosperiorly Restrangement Restrangement Restrangement Restrangement Restrangement Restrangement Prosperiorly Restrangement Restrangement Restrangement Restrangement Prosperiorly Restrangement Re	American Sent Artista Sent Arti	Account of the Committee of the Committe	2024 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1.4.1 2.6 7. 7. 7. 7. 7. 7. 9. 9. 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.	Litham Chemistry Stemson and Chemistry Stems	Monimum risk of hims Monimum risk of hims Monimum risk of hims Lour risk of hims Lou	The discussion of the control of the	Action of the Control	Sometimens II. Contract contracts III.	An americal Paris 10 (ART) And 10 (ART) ART ART ART ART ART ART ART	Section 2 in the control of the cont	Setum Setum Setum Setum Setum Setum Setum Setum
Part	Meanscriene, 2012 Manufacture, 2012 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2017 Manufacture, 2013 Manufacture,	Cross a sectional	Non centubilists. Non centubilists of the century		Monorane este in Monora	Proposition Propos	American Sent Artista Sent Arti	Account of the Committee of the Committe	200 August	1.4.1 2.6 7. 7. 7. 7. 7. 7. 9. 9. 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.	Litham Chemistry Stemson and Chemistry Stems	Monimum risk of hims Monimum risk of hims Monimum risk of hims Lour risk of hims Lou	The discussion of the control of the	Andrew Control of the	Contraction Control Co	American State (1997)	Section 2 in the control of the cont	Seinen
Part	Meanscriene, 2012 Manufacture, 2012 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2017 Manufacture, 2013 Manufacture,	Cross a sectional	Non centubilists. Non centubilists of the century		Monorane este in Monora	Prospective Prospe	American Sent Artista Sent Arti	AMORDICA (1997) AMORDI	200 August	1.4 A. V.	Litham Chemistry Stemson and Chemistry Stems	Monimum risk of hims Monimum risk of hims Monimum risk of hims Lour risk of hims Lou	The discussion of the control of the	Andrew Control of the	Contraction Control Co	American State (1997)	incomes have a material relation to the mid-file A. A. and 18-bit. A most 18-bit. A mid-file A. A. and 18-bit. A mid-file A. and 18-b	Nation Sation
Part Company	Meanscriene, 2012 Manufacture, 2012 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2013 Manufacture, 2017 Manufacture, 2013 Manufacture,	Cross a sectional	Non centubilists. Non centubilists of the century		Monorane este in Monora	Prospective Prospe	American Sent Artista Sent Arti	AMORDICA (1997) AMORDI	1.00	1.4 A. V.	Litham Chemistry Stemson and Chemistry Stems	Monimum risk of hims Monimum risk of hims Monimum risk of hims Lour risk of hims Lou	The discussion of the control of the	Andrew Control of the	Contraction Control Co	American State (1997)	incomes have a material relation to the mid-file A. A. and 18-bit. A most 18-bit. A mid-file A. A. and 18-bit. A mid-file A. and 18-b	Nation Sation
Part Company and Company a	December 2011 December 201	Come section of Come section o	Non centubilists. Non centubilists of the century		Management of the Advancement of	Prospective Prospe	American Sent Artista Sent Arti	Account of the Committee of the Committe	2.3.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2	1.4 A. V.	13-bigs. 13-bigs. We designed to the second of the second	Monotone and of the Monotone and and the Monotone and and the Monotone and and the Monotone and and the Monotone and and the Monotone and the	The discussion of the control of the	Andrew Control of the	Contractants II. Contract Services III. Contractants Contract	A CONTROL OF CONTROL O	The control of the co	Second Se
Accordance Control C	Dissection, 2011 Analysis (1914) Analy	Come activities of the common activities of th	Non centubilists. Non centubilists of the century		Management of the American State of the Amer	Prospective Prospe	American Sent Artista Sent Arti	Account of the Committee of the Committe	2.3.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2	1.4 A. V.	1-bins. 1-bins. 1-bin	Monteners and of the Monte of t	The discussion of the control of the	Andrew Control of the	Controllera III. Control Controllera III. Control Controllera III. Control Controllera III. Control Controllera III. Controllera III.	A control (1981) 1	Transport of the Control of the Cont	Salaman
Part Constraint Constrain	December 2011 December 201	Const action of the constraint	Non centubilists. Non centubilists of the century		Management of the American State of the Amer	Prospective Prospe	Apparent Comment of the Comment of t	AMORDICA PARTICIPATION	2.3.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2	1.4 A. V.	1-bins. 1-bins. 1-bin	Monteners and of the Monte of t	The description of the control of th	Andrew State of the Control of the C	Construence III. Construence	An extend 2014 A. C.	Transport of the Control of the Cont	Salaman
Part Constraint Constrain	Managines, 2011 Angles, 1913	Communication of the Communica	Non controllette Service of the controllette		And the content of th	Prostolisty Prosto	American Tonda Alban Tonda Al	Account of the Committee of the Committe	2.3.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2	1.4 A. V.	1-bion. 1-bion. The second of	Monteners and of the Monteners of the Monte and the Monte	The discussion of the control of the	Andrew Control of the	Construence Constr	An enter 1994 (1994 1994 1994 (1994 1994 1994 (1994 1994 1994 (1994 1994 1994 (1994 1994 1994 (1994 1994 1994 (1994 1994 1994 (1994 1994 1994 (1994 1994 1994 (1994 1994 1994 (1994 1994 1994 (1994 1994 1994 (1994 1994 1994 (1994 1994 1994 (1994 1994 1994 (1994 1994 1994 (1994 1994 1994 (1994 1994 1994 (1994 (1994 1994 (1	The control of the co	Soon Soon Soon Soon Soon Soon Soon Soon
Part Constraint Constrain	December 2011 December 201	Communication of the Communica	Non-controlledate. Non-co	American autoritary au	And the content of th	Prostolisty Prosto	Application of the control of the co	And Control of the Co	20 20 20 20 20 20 20 20 20 20 20 20 20 2	1.4 A.	Johan Water and A second A secon	Medicine and of the Medicine and of the Medicine and of the Medicine and of the Medicine and Med	The decision of the control of the c	About Section of Secti	Construence (Construence Construence Const	A CONTROL OF STATE OF	Transport of the Control of the Cont	Soon Soon Soon Soon Soon Soon Soon Soon
Days 2019 Cross societies Description Francisco participate Properties Proceedings Pro	Managines, 2011 Angale, 1913	Chem and Che	Non-controlledate. Non-co		And the content of th	Prostolisty Prosto	A particular of the control of the c	AMORDICA (1997) AMORDI	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	1.4 A.	Albert M. State of the Control of th	Medicine and of the comment of the c	The discussion of the control of the	Andrew Control of the	Contractants II. Contract Extractants III. Contractants II	A CONTROL TO STATE OF THE ACT OF	The control of the co	Soon Soon Soon Soon Soon Soon Soon Soon
Days 2019 Cross societies Description Francisco participate Properties Proceedings Pro	Managines, 2011 Angale, 1913	Chem and Che	Non-controlledate. Non-co		Advancements	Proceedings of the Control of the Co	A particular of the control of the c	AMORDICA (1997) AMORDI	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	1.4 A.	1-bitan. 1-bita	Membran and Fast. The Committee of State of Sta	The description of the control of th	Action and account of the Control of	Contractants II. Contract Extractants III. Contractants II	A CONTROL TO STATE OF THE ACT OF	The control of the co	South Section 1
Days 2019 Cross societies Description Francisco participate Properties Proceedings Pro	Managines, 2011 Angale, 1913	Chem and Che	Non-controlledate. Non-co		And the second s	Proceedings of the Control of the Co	A particular of the control of the c	AMORDIS CONTROLLA DE CONTROLLA	2015 2016 2017 2017 2017 2017 2017 2017 2017 2017	1.4 A.	1-10-12. 1-10-1	Machinery and of Basis. The property of the Company of Basis. The property o	The description of the control of th	Action and account of the Control of	Contractants II. Contract Extractants III. Contractants II	A CONTROL TO STATE OF THE ACT OF	Transport of the Control of the Cont	South Section 1
Days 2019 Cross societies Description Francisco participate Properties Proceedings Pro	Managham, 2013 Angala, 1913	Chem and Che	Non-controlledate. Non-co		Accounted the control of the control	Proceedings of the Control of the Co	A particular of the control of the c	AMORDIS CONTROLLA DE CONTROLLA	2015 2016 2017 2017 2017 2017 2017 2017 2017 2017	1.4 A.	1-10-12. 1-10-1	Machinery and of Basic The Committee of Basic The Co	The desiration of the control of the	Andrew Control of the	Contractants II. Contract Extractants III. Contractants II	A CONTROL TO STATE OF THE ACT OF	Transport of the Control of the Cont	South Section 1
Days 2019 Cross societies Description Francisco participate Properties Proceedings Pro	Managham, 2013 Angala, 1913	Chem and Che	A CONTRACTOR OF THE PARTY OF TH		Accounted the control of the control	Proceedings of the Control of the Co	A particular of the control of the c	ACCOUNTS OF ACCOUN	2015 2016 2017 2017 2017 2017 2017 2017 2017 2017	1.4 Land Land Land Land Land Land Land Land	Johan	Montenin and Final State of the Control of State	The discussion of the control of the	Andrew Control of the	Controllers III. Control Entrollers III. Control Entrol Control Control Entrol Control C	A CONTROL TO STATE OF THE ACT OF	Transport of the Control of the Cont	South Section 1
Ship, 2005 Cross sectional Non-perchabilistic Consecution sampling Mercocenter Prospertical Unclear Not reported U	Managines, 2011 Markett, 1912 Markett, 1912 Markett, 1913 Mark	Seem workers of the control of the c			Accounted the control of the control	Proceedings of the Control of the Co	Secretary of the Control of the Cont	ACCOUNTS OF THE PROPERTY OF TH	2015 2016 2017 2017 2017 2017 2017 2017 2017 2017	1. Company of the com	Johan M. San	Montement and of the comment of the	The discussion of the control of the	State Control of the	Construction Control C	An earl Park 1, 10 Li Maria An earl Park 1,	The control of the co	South Section 1
Sin-2006 Creas sectional The conduction Section Contraction section (Contraction section) Proceedings (Contr	Managines, 2011 Markett, 1912 Markett, 1912 Markett, 1913 Mark	Seem workers of the control of the c			Accounted the control of the control	Ameninia de Proposition de la Contraction de la	Secretary of the Control of the Cont	ACCOUNTS OF THE PROPERTY OF TH	2015 2016 2017 2017 2017 2017 2017 2017 2017 2017	1. Company of the com	Johan M. San	Montement and of the comment of the	The discussion of the control of the	State Control of the	Construction Control C	An earl Park 1, 10 Li Maria An earl Park 1,	The control of the co	South Section 1
	Managines, 2011 Markett, 1912 Markett, 1912 Markett, 1913 Mark	Seem workers of the control of the c			Accounted the control of the control	Ameninia de Proposition de la Contraction de la	Secretary of the Control of the Cont	ACCOUNTS OF THE PROPERTY OF TH	2015 2016 2017 2017 2017 2017 2017 2017 2017 2017		Johan M. San	Montening and of Basis. Montening and Same and	The description of the control of th	Andrew Control of the	STORMERS AND STORM	A CONTROL OF CONTROL O	The control of the co	South Section 1

	Shin, 2006	Cross sectional	Non probabilistic	Consecutive sampling	Monocenter	Prospetively	North Korea	Unclear/ Not reported	Unclear/Not reported	21.5	Unclear/ Not reported	Moderate risk of biss	HCWs not specified	HCWs not specified	Chemituminescent enzyme immunosessy (CLEIA)	Ac anti-HBs + Ac anti- HBc		Serum
Part		Cross sectional	Non probabilistic	Consecutive sampling	Monocenter	Prospetively	North Korea	Unclear/ Not reported	Unclear/Not reported	21.5	Unclear/ Not reported	Moderate risk of biss	Health associate professionals	Medical laboratory technician	Chemituminescent enzyme immunosessay (CLEIA)	Ac anti-HBs (> 10 Ul/li)	Immunity against HBV (Ac anti-HBs (> 10 U/II)	Serum
Column	Shin, 2008 Shin, 2008	Cross sectional	Non probabilistic	Consecutive sampling	Monocenter Monocenter	Prospetively Prospetively	North Korea	Unclear Not reported	Unclear/ Not reported		Unclear/ Not reported	Moderate risk of biss Moderate risk of biss	Health professionals Personal case workers in health services	Nurse Nursing side				Serum
Mary	Shin, 2006	Cross sectional	Non probabilistic	Consecutive sampling	Monocenter	Prospetively	North Korea			21.5					Electro-chemiluminescence immunossassy (ECLIA)	Ac anti-HBs (> 10 UI/I)	Immunity against HBV IAc anti-HBs (> 10 UMI)	
Part	Shosei, 2013		Probabilistic	Simple random sampling	Multicenter	Prospetively	Iran		35.8	78.1	Unclear/ Not reported				Indirect EUSA	Ac anti-HBs (> 10 Ul/l)	Immunity against HBV (Ac anti-HBs (> 10 U/(I))	
Column	Shrestha, 2006 Siew 1987		Probabilistic Non nenhabilistic	Conservitive sempling	Monocenter	Prospetively Prospetively	Nepal United States of America			Unclear Not reported	Unclear/ Not reported	Low risk of bias	HCWs not specified Health nonfessionals	HCWs not specified Danrier				Serum
Part	Sinclair, 1987	Cross sectional	Non probabilistic		Multicenter	Prospetively	United Kingdom	Unclear/ Not reported	Unclear/Not reported	Unclear/ Not reported	Unclear/ Not reported	Moderate risk of biss	Health professionals	Anasorbetata	Direct passive harmapolatination	Ao HBs	Current HBV infection (Ag HBs +)	Serum
Part	Singh, 2010	Cross sectional	Non probabilistic	Consecutive sampling	Monocenter	Prospetively	India	Unclear/ Not reported	Unclear/Not reported	Unclear/ Not reported	Unclear/ Not reported	Moderate risk of biss	Other health service providers not elsewhere classified	Medical student intern, Hospital volunteer	Indirect EUSA	Ag HBs + IgM anti-HBc	Acutely infected (Ag HBs + IgM anti-HBc +)	Serum
Part	Singh 2010 Singh 2010	Cross sectional	Non probabilistic	Consecutive sampling	Monocenter	Prospetively Prospetively	India India	Unclear Not reported	Unclear/ Not reported I Inclear/ Not reported	Unclear Not reported	Unclear/ Not reported	Moderate risk of biss Moderate risk of biss	Other health service providers not elsewhere classified.	Medical student intern, Hospital volunteer Medical student intern, Hospital volunteer	Drect ELISA Infinct ELISA	Ap HBs Ar ami, HRs /s 10 LE/0	Current HBV infection (Ag HBs +) Immunity against HBV [Ac anti-HBs (s. 10 185)]	Serum
	Skinhei, 1984			Simple random sampling	Monocenter	Prospetively	Denmark	Unclear/ Not reported	Unclear/Not reported		Unclean Not reported	Low risk of bias	Health associate professionals	Ambulance officer		Ag HBs	Current HBV infection (Ag HBs +)	Serum
Part	Skinhei, 1984	Cross sectional	Probabilistic	Simple random sampling	Monocenter	Prospetively	Denmark	Unclear/ Not reported		Unclear/ Not reported	Unclear/ Not reported	Low risk of bias	Health professionals	Nurse	Direct ELISA	Ag HBs		Serum
Part																		
March Marc	Smith. 1976	Cross sectional	Non probabilistic	Consecutive sampling	Multicenter	Prospetively	United States of America	1975	Unclear/Not reported	Unclear/ Not reported		Low risk of bias	Health professionals	Physician	Radiommunososay	Ag HBs	Current HBV infection (Ag HBs +)	
Manual M	Smith. 1987	Cross sectional	Non probabilistic	Consecutive sampling	Monocenter	Prospetively		Unclear/ Not reported	Unclear/Not reported		Unclear/ Not reported	Moderate risk of biss	Health professionals	Nurse			Current HBV infection (Ag HBs +)	Serum
Manual M	Snydman, 1984 Snydman, 2016	Cross sectional	Non probabilistic	Consecutive sampling	Multicenter	Prospetively Prospetively	United States of America South Africa		Unclear/ Not reported	17.4	Urban	Moderate risk of biss Moderate risk of biss	HCWs not specified					
Column	Sondiane, 2016	Cross sectional	Non nmhahilistir	Consumitive sampling	Multicenter	Prospetively	South Africa	2009-2012		17.4	Urban	Moderate risk of biss	HCWs not specified	HCWs not specified	Electro-chemiluminescence immunosssav (ECLIA)	Ac anti-HBs + Ac anti- HBc	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +)	Serum
Column		Cross sectional	Non probabilistic	Consecutive sampling	Multicenter	Prospetively	South Korea			Unclear/ Not reported	Unclear/ Not reported	Moderate risk of biss	Health professionals	Dentist	Microparticle Enzyme Immunosessay (MEIA)	Ao HBs		Serum
Column	Srichomissum 2009		Non probabilistic		Monocenter	Prospetively	Theiland		Uncess Not reported	Unchest NOT NICONS						Ac ami,HRs /s 10 LE/II		Serim
	Storch, 1985	Cross sectional	Non probabilistic	Consecutive sampling	Multicenter		United States of America	Unclear/ Not reported		23.1	Unclear/ Not reported	Moderate risk of biss	Health management and support personnel	Administrative staff	Radioimmunoscoay	Ac anti-HBs + Ac anti- HBc	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +)	Serum
Column	Storch, 1985	Cross sectional	Non probabilistic	Consecutive sampling	Multicenter	Retroprospectively				23.1	Unclear/ Not reported	Moderate risk of biss	HCWs not specified	HCWs not specified	Radioimmunosssay	Ac anti-HBs + Ac anti- HBc	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +)	Serum
March Marc						Retroprospectively				23.1				Name	Ratiommunosoay	Ac arti.HRs + Ac arti. HRc	Immune due to natural infection (Ac anti-HRs + Ac anti-HRs +)	Serum
Property of the property of		Cross sectional	Non probabilistic	Consecutive sampling	Multicenter	Retroprospectively	United States of America	Unclear/ Not reported		23.1				Patient care assistant	Radommunososay	Ac anti-HBs + Ac anti- HBc	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +)	Serum
Part	Storch, 1985	Cross sectional		Consecutive sampling	Multicenter	Retroprospectively	United States of America		Unclear/Not reported	23.1	Unclear/ Not reported	Moderate risk of biss	Health professionals	Physician	Radioimmunossasy	Ac anti-HBs + Ac anti- HBc	Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +)	
March Marc	Storch, 1985 Strave , 1992	Cross sectional Cross sectional	Non probabilistic	Consecutive sampling Consecutive sampling	Multicenter	Prospetively	United States of America Sweden	Unclear Not reported Unclear Not reported	Unclear/ Not reported Unclear/ Not reported	Unclear/ Not reported	Unclear/Not reported Unclear/Not reported	Moderate risk of biss	HCWs not specified HCWs not specified	HCWs not specified HCWs not specified	Radiommunossaw	Ac are-HBs (> 10 Ul/l) Ac HBs + IoM arti-HBc	Acutely infected (Ag HBs + IgM anti-HBc +)	Serum
Column	Sukris, 2008	Cross sectional	Non probabilistic	Consecutive sampling	Multicenter	Prospetively	India	2005-2008	36.46	50.7	Urban	Low risk of bias	HCWs not specified	HCWs not specified	Enzyme immunoassay (EIA)	Ao HBs	Current HBV infection (Ag HBs +)	Serum
Prop. Column Prop	Sukriti. 2008	Cross sectional	Non probabilistic	Consecutive sampling	Multicenter	Prospetively	India								Forting immunoscopy (FIA)			
Part			Non probabilistic	Consecutive sampling	Multicenter	Prospetively	India				Unicear/ Not reported	Moderate risk of biss	HCWs not specified	HCWs not specified	Sandwich FLISA technique	ng mps + IgM anti-MSc An HRs		
Column	Taishete , 2016	Cross sectional	Non probabilistic	Consecutive sampling	Multicenter	Prospetively	India	Unclear/ Not reported	Unclear/Not reported	45.6	Unclear/ Not reported	Moderate risk of biss	HCWs not specified	HCWs not specified	Sandwich ELISA technique	Ac anti-HBs (> 10 UI/I)	Immunity against HBV [Ac anti-HBs (> 10 UVI)]	
Property			Non probabilistic		Multicenter	Prospetively	Malayaia			27.2				Dentist				
Part	Ten. 1992 Ten. 1993	Cross sectional	Non probabilistic	Consecutive sampling	Multicenter	Prospetively Description	Malaysia	1985	36.8	27.2	Urbanisural Urbanisural	Low risk of bias	Meath associate professionals	Medical assistant	Direct ELISA Direct ELISA	Ag HBs	Current HBV infection (Ag HBs +)	Serum
A	Ten 1992				Millicenter	Prospetively	Malaysia					Low risk of hiss		Medical lehoratory technician				Serum
Property	Tan. 1992	Cross sectional	Non probabilistic	Consecutive sampling	Multicenter	Prospetively	Malaysia			27.2	Urban/sural	Low risk of bias	Health professionals	Midwife	Direct ELISA	Ag HBs	Current HBV infection (Ag HBs +)	Serum
Prop. Prop								1985	36.8	27.2								
Part	Ten. 1992 Tetrahan 2016	Cross sectional	Non probabilistic	Consecutive sampling	Multicenter		Malaysia	1985 Marcon a Narronna	36.8	27.2	Urbanisural Urbanisural	Low risk of bias	Personal care workers in health services	Patient care assistant	Direct ELISA Direct ELISA	Ag HBs	Current HBV infection (Ag HBs +)	Serum
Part	Tatalong, 2016					Prospetively		Mar/2014-Nov/2014		29	Urban	Moderate risk of biss	Health associate professionals	Medical laboratory technician		Ag HBs		Serum
Part	Tatailong, 2016	Cross sectional	Non probabilistic	Consecutive sampling	Monocenter	Prospetively	Cameroon	Mar/2014-Nov/2014		29	Urban	Moderate risk of biss	Health professionals	Nurse	Direct ELISA	Ao HBs	Current HBV infection (Ag HBs +)	
March Marc						Prospetively	Cameroon											
		Cross sectional	Non probabilistic	Consecutive sempling		Prospetively	File		34.6			Low risk of high	Health management and support nemornal	Administrative staff				
March Marc	Taylor, 1991	Cross sectional	Non probabilistic	Consecutive sampling	Multicenter	Prospetively	Fij		34.6	33.4		Low risk of high	MCWs not encoding	Administrative exell	Bartisines proposity	La MRe		
Part																		
Part			Non probabilistic		Multicenter	Prospetively	Fil	Unclear/ Not reported	34.6	33.4	Urbanisural	Low risk of bias	Health professionals	Dentist	Radioimmunososay	Ao HBs	Current HBV infection (Ag HBs +)	Serum
Part	Taylor, 1991	Cross sectional		Consecutive sampling		Prospetively Prospetively Prospetively	Fill Fill Fill	Unclear/ Not reported Unclear/ Not reported	34.6 34.6 34.6	33.4 33.4	Urban/sural Urban/sural	Low risk of bias Low risk of bias	Other health service providers not elsewhere classified	Dentist Medical student intern. Hospital volunteer	Radioimmunossay Radioimmunossay	Aq HBs Aq HBs	Current HBV infection (Ag HBs +) Current HBV infection (Ag HBs +)	Serum Serum
March Control Contro	Taylor, 1991 Taylor, 1991	Cross sectional Cross sectional	Non probabilistic	Consecutive sampling Consecutive sampling		Prospetively Prospetively Prospetively Prospetively	Fili Fili Fili Thailand	Unclear/ Not reported Unclear/ Not reported	20.5	33.4 33.4 33.4 50.8	Urban/sural Urban/sural	Low risk of bias Low risk of bias Low risk of bias Low risk of bias	Health professionals Other health service providers not elsewhere classified Health professionals Other health service providers not elsewhere classified	Dentist Medical student intern. Hospital volunteer Nurse Medical student intern. Hospital volunteer	Radioimmunosskay Radioimmunosskay Radioimmunosskay	Ag HBs Ag HBs Ag HBs	Current HBV infection (Aq HBs +) Current HBV infection (Aq HBs +) Current HBV infection (Aq HBs +)	Serum Serum
The column Column and the column Column Column and the column Column Column and the column and the column Column and the column Column and the column and the column Column and the column Column and the column and the column Column and the column an	Taylor, 1991 Taylor, 1991 Techasathi, 2005 Techasathi, 2005	Cross sectional Cross sectional Cross sectional Cross sectional	Non probabilistic Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling	Multicenter Monocenter Monocenter	Prospetively Prospetively		Unclear Not reported Unclear Not reported Unclear Not reported Met/2002-Jun/2002 Met/2002-Jun/2002	20.5	33.4 33.4 33.4 50.8 50.8	Urban/sural Urban/sural	Low risk of bias Low risk of bias Low risk of bias Low risk of bias Low risk of bias	Health professionals Char health sentice providers not elsewhere classified Health professionals Other health sentice providers not elsewhere classified Other health sentice providers not elsewhere classified	Dentiet Medical student intern. Hospital volunteer Narse Medical student intern. Hospital volunteer Medical student intern. Hospital volunteer Medical student intern. Hospital volunteer	Radoirensonasiay Radoirensonasiay Radoirensonasiay Radoirensonasiay Macroparicki Engeria Immunoisiasy (MEIA) Macroparicki Engeria Immunoisiasy (MEIA)	Ag HBs Ag HBs Ag HBs Ag HBs Ac ansi-HBs + Ac anti-HBc	Current HBV infection (Ag HBs +)	Serum Serum Serum Serum
Proc. Proc	Taylor, 1991 Taylor, 1991 Techasathi, 2005 Techasathi, 2005 Techasathi, 2005	Cross sectional Cross sectional Cross sectional Cross sectional Cross sectional	Non probabilistic Non probabilistic Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling	Multicenter Monocenter Monocenter Monocenter	Prospetively Prospetively	Thailand	Unclear Not reported Unclear Not reported Unclear Not reported Unclear Not reported May/2002-Jan/2002 May/2002-Jan/2002 May/2002-Jan/2002 May/2002-Jan/2002	20.5	33.4 33.4 33.4 50.8 50.8	Urban/sural Urban/sural	Low risk of bias Low risk of bias	Health professionate Chter health service providers not elsewhere classified. Health professionate Other health service providers not elsewhere classified. Other health service providers not elsewhere classified. Other health service providers not elsewhere classified.	Derrist Medical student intern, Hospital volunteer Name Medical student intern, Hospital volunteer Medical student intern, Hospital volunteer Medical student intern, Hospital volunteer	Badomerunossase Radomerunossase Radomerunossase Radomerunossase Radomerunossase Repostrick Forum Immunossase (META) Menopartick Forum Immunossase (META) Menopartick Forum Immunossase (META)	Ag HBs Ag HBs Ag HBs Ag HBs Ac anti-HBs + Ac anti- HBc Ac anti-HBs (> 10 UM)	Coment HBV infection (Ag HBs +) Immune due to natural infection (Ac anti-HBs + Ac anti-HBc +) Immunity against HBV [Ac anti-HBs + 10 UAII]	Serum Serum Serum Serum
Part	Taylor, 1991 Taylor, 1991 Techassith, 2005 Techassith, 2005 Techassith, 2005 Techassith, 2005 Thomas, 1923 Tomas, 1987	Cross sectional	Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling	Multicenter Monocenter Monocenter Monocenter Monocenter Monocenter	Prospetively Prospetively	Theland United States of America United States of America	Unclear/Not reported Unclear/Not reported Unclear/Not reported Mey/2002-Jun/2002 Mey/2002-Jun/2002 Mey/2002-Jun/2002 Act/1921-Dec/1921	20.5 20.5 20.5 30.5	33.4 33.4 33.4 50.8 50.8 50.8	Urban/sural Urban/sural Urban Urban Urban Urban Urban Urban	Low risk of biss	Thistiff to not seasonable. Other health sension providers not allesenhare classified. Health professionable. Other health sension providers not allesenhare classified. Other health sension providers not allesenhare classified. Other health sension providers not allesenhare classified. HOWs not sension providers not allesenhare classified. HOWs not sensitied. HOWs not sensitied.	Derrickt Medical student intern, Hospital volunteer Nortie Medical student intern, Hospital volunteer HCWs not seportfiel HCWs not seportfiel	Badocramposese Badocramposese Menoparisis Engress Internacionary (MEA) Menoparisis Engress MEA)	Ag HBs Ag HBs Ag HBs Ac anti-HBs + Ac anti-HBc Ac anti-HBs (> 10 Ulif) Ag HBs Ac anti-HBs + Ac anti-HBc	Current HBV infection (Ap. 180 ± 1) Infect	Serum Serum Serum Serum Serum Serum Serum
Part	Taylor, 1991 Taylor, 1991 Techasathe, 2005	Cross sectional	Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic	Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling	Multicenter Monocenter Monocenter Monocenter Monocenter Monocenter Multicenter	Prospetively Prospetively	Theland United States of America United States of America	Unclair Not reported Unclair Not reported Unclair Not reported Unclair Not reported Mer/2002-bn/2002 Mer/2002-bn/2002 Mer/2002-bn/2002 Ann/1921-Dec/1921 Jan/1923	20.5 20.5 20.5 20.5 Unclear/Not reported 42.9	33.4 33.4 33.4 50.8 50.8 50.8	Urban/sural Urban/sural Urban Urban Urban Urban Urban Urban	Low risk of bias	Health nordesaionals. Other health section providers not allowabers classified Health professionals. The professionals Health professionals. Other health sections providers not allowabers classified Health professionals. Other health section providers not allowabers classified Other health section providers not allowabers classified Health health section providers not allowabers classified HEALTH profession providers not allowabers classified HEALTH professional HEALTH professiona	Derrickt Medical student intern, Hospital volunteer Nortie Medical student intern, Hospital volunteer HCWs not seportfiel HCWs not seportfiel	Baloimmanasar Baloimmanasar Radommossar Kadommossar Kadommossar Kadommossar Katombossar Katombossar Katombossar Katombossar Katombossar Katombossar Katombossar Baloimmossar Baloimmossar Baloimmossar	Ao HBs Ao HBs Ao HBs Ao anti-HBs + Ac anti-HBc Ao anti-HBs + Ac anti-HBc Ac anti-HBs + Ac anti-HBc	Current FBV infection (Apr 1914 +) Infect	Serum Serum Serum Serum Serum Serum Serum
Part	Taylor, 1991 Taylor, 1991 Techassitht, 2005	Cross sectional	Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic Probabilistic	Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Sample random sampling	Multicenter Monocenter Monocenter Monocenter Monocenter Monocenter Monocenter Monocenter Multicenter Multicenter	Prospetively Prospetively	Theland United States of America United States of America	Unclear Not reconted Unclear Not reconted Unclear Not reported Unclear Not reported Merizocz - Junz2002 Merizocz - Junz2002 Amerizocz - Junz2002 Amerizocz - Junz2002 Amerizocz - Junz2003 Unclear Not reconted O-przootz- Occizocz	20.5 20.5 20.5 20.5 20.5 20.5 20.5 20.5	33.4 33.4 33.4 50.8 50.8 50.8	Urban/sural Urban/sural Urban Urban Urban Urban Urban Urban	Low risk of biss	Whight nordessionals Other health service providers not alsowhere classified Health professionals Health professionals Other health service providers not alsowhere classified HEAVI not assection HEAVI not assection HEAVI not assection HEAVI not assection	Derrickt Medical student intern, Hospital volunteer Nortie Medical student intern, Hospital volunteer HCWs not seportfiel HCWs not seportfiel	Beformmoniane Beformmoniane Validommunicania Validommunic	Ap HBs Ap HBs Ap HBs Ap HBs Ac anti-HBs + Ac anti-HBc Ac anti-HBs (> 10 LB/I) Ap HBs Ac anti-HBs + Ac anti-HBc Ac anti-HBs + Ac anti-HBc Ac anti-HBs + Ac anti-HBc	Current HW infection (Apr 1914 » 1 Current HW infec	Serum Serum Serum Serum Serum Serum Serum Serum Serum
Part	Turker, 1991 Turker, 1991 Turker, 1991 Turker, 1991 Turker, 1991 Turker, 1995 Turker, 1995 Turker, 1995 Turker, 1997	Cross sectional	Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic Probabilistic Probabilistic Probabilistic	Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Simple samples samples samples Simple samples samples Simple samples samples Simple samples samples Simple samples samples Simple sample Simple sample Simple sample Simple sample Simple sample Simple Simple sample Simple sample Simple sample Simple Simple Simple Simple Simple Simple Simple Simple Simple Simple Simple Simple Simple Simple Simple Simple Simple Simple Sim	Multicenter Morsocenter Morsocenter Morsocenter Morsocenter Morsocenter Morsocenter Multicenter Multicenter Multicenter Multicenter	Prospetively Prospetively	Theland United States of America United States of America	Unclear Not reported Mex2002 - Mex2002	20.5 20.5 20.5 20.5 20.5 32.0 33.8 33.8 33.8 10-riosal Not seported	33.4 33.4 33.4 50.8 50.8 50.8 23.86 Unclear! Not reported. 25 8.8	Litteniscell Litteniscell Litteniscell Litteniscell Litten	Low risk of bias	Health nord-sealonals Mother branks sealone providers not alterarbane closedfeel Health products and sealone providers not alterarbane closedfeel Health products and sealone providers not alterarbane closedfeel Getter health sealone providers not alterarbane closedfeel Chitar health sealone providers not alterarbane closedfeel Chitar health sealone providers not alterarbane closedfeel HOWs not aspecified HOWs not specified How how the providers not alterarbane closedfeel How how the providers not alterarbane How the providers not a	Barrist Medical student innen. Hosphil volunteer Narse Medical student innen. Hosphil volunteer HCWs not steerfeld. HCWs not steerfeld. HCWs not steerfeld. HCWs not steerfeld. Narse Narse Narse Narse Narse	Reformmensome Medicinations Memoratics forgons innovaneau militari Memoratics forgons militari memoratics (MEM) Memoratics forgons militari memoratics (MEM) Memoratics forgons militari	Ap HBs Ap HBs Ap HBs Ap HBs Ac anti-HBs (> 10 LIII) Ap HBs Ac anti-HBs (> 10 LIII) Ac anti-HBs (> Ac anti-HBc Ac anti-HBs (> Ac anti-HBc Ac anti-HBs (> 10 LIII) Ac anti-HBs (> 10 LIII)	Consect High Federics (Ap 1994 a.) Internet has be maked infection for wide High a. Ac wide High a.) Internet has be maked infection for wide High a. Ac wide High a.) Consect High Federics (Ap 1994 a.)	Serum Serum Serum Serum Serum Serum Serum Serum Serum
Cons. particul. Cons. part	Turker, 1921 Turker, 1921 Turker, 1921 Turker, 1921 Turkerser, 2025 Turkerser, 2025 Turkerser, 1923 Turne, 1927 Turne, 1927 Turne, 1928 Turne, 1928 Turne, 2012 Turne, 2012 Turne, 2012 Turne, 2012 Turne, 2016	Cross sectional	Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic Probabilistic Probabilistic Probabilistic	Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Simple random sampling Simple random sampling Simple random sampling Consecutive sampling Simple random sampling Consecutive sampling	Multicenter Morsocenter Morsocenter Morsocenter Morsocenter Morsocenter Morsocenter Multicenter Multicenter Multicenter Multicenter	Prospetively Prospetively	Theiland United States of America United States of America United States of America Greace Greace Greace	Unclear Not reported Merc2002 - Merc2002 Merc2002 - Merc2002 Merc2002 - Merc2002 Merc2002 - Merc2002 Merc2002 - Merc2003 Merc	20.5 20.5 20.5 20.5 20.5 32.0 33.8 33.8 33.8 10-riosal Not seported	33.4 33.4 33.4 50.8 50.8 50.8 23.86 Unclear! Not reported. 25 8.8	Litteniscell Litteniscell Litteniscell Litteniscell Litten	Low risk of bias	Health moderationals. The Control of the Control o	Darmist Monfesse Assistent intern. Hossenhil volunteser Narres Maries Monfesse Assistent intern. Hossenhil volunteser Medicisal assistent intern. Hossenhil volunteser Medicisal assistent intern. Hossenhil volunteser Medicisal assistent intern. Hossenhil volunteser Ho-type not starefield Most assistent international months assistent assistent international months assisten	Substructuressum: Account of the Control State of	Ap HBs Ap HBs Ap HBs Ac and HBs + Ac and HBs Ap HBs Ap HBs Ap HBs Ap HBs + Ac and HBs Ap HBs	Consent Billy and Control (Ap. 1964. a.) Consent Billy and Control (Ap. 1964. b.)	Serum Serum Serum Serum Serum Serum Serum Serum Serum Serum Serum Serum
Dec. Cost Section	Yaylor, 1991 Yaylor, 1991 Yachasarhi, 2005 Yachasarhi, 2005 Yachasarhi, 2005 Techasarhi, 2005 Techasarhi, 2005 Techasarhi, 2005 Techasarhi, 2007 Tech, 1988 Techa, 2012 Techa, 2012 Yacha, 2012 Yacha, 2016 Yafan, 2016	Cross sectional	Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic Probabilistic Probabilistic Probabilistic	Consecutive sameling Consecutive sameling Consecutive sameling Consecutive sameling Consecutive sameling Consecutive sameling Consecutive sameling Consecutive sameling Simple sendom sameling Simple sendom sameling Consecutive sameling Consecutive sameling Consecutive sameling Consecutive sameling Consecutive sameling Consecutive sameling	Multicenter Monocenter Monocenter Monocenter Monocenter Monocenter Monocenter Monocenter Multicenter Multicenter Multicenter Multicenter Multicenter Multicenter Multicenter Monocenter Monocenter Monocenter	Prospetively Prospetively	Thelend United States of America United States of America United States of America United States of America Gresca Gresca Gresca Georgia Ethicolis Carrescon	Unclear Nat reported Nat reported Nat reported Nat reported Nat reported Nat report Nat reported Nat report Nat reported Nat report Nat re	20.5 20.5 20.5 20.5 Linclear/Not reported 47.9 33.8 33.8 33.8 33.8 33.8 33.8	33.4 33.4 33.4 35.6 50.8 50.8 50.8 50.8 50.8 50.8 50.8 50.8	Litteniscell Litteniscell Litteniscell Litteniscell Litten	Loon risk of bias Love risk of bias Modesse risk of bias Modesse risk of bias	North moderactions 1-south moderactions 1-south moderactions 1-south moderactions 1-south permanents	Darriste Medical standard intens. Hostalist voluntear Naries Medical standard intens. Hostalist voluntear Naries Medical standard intens. Hostalist voluntear Standard Standar	Salementement Commentement C	Ap HBs	Concern Bill of Indiana (April 10) a 1 Content Bill of Indiana (April 10) a 1 Conten	Secum Secum Secum Secum Secum Secum Secum Secum Secum Secum Secum Secum Secum Secum Secum
Cont. Cont	Yaylor, 1991 Yaylor, 1991 Yachasarhi, 2005 Yachasarhi, 2005 Yachasarhi, 2005 Techasarhi, 2005 Techasarhi, 2005 Techasarhi, 2005 Techasarhi, 2007 Tech, 1988 Techa, 2012 Techa, 2012 Yacha, 2012 Yacha, 2016 Yafan, 2016	Cross sectional	Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic Non probabilistic Probabilistic Probabilistic Probabilistic	Consecutive sameling Consecutive sameling Consecutive sameling Consecutive sameling Consecutive sameling Consecutive sameling Consecutive sameling Consecutive sameling Simple sendom sameling Simple sendom sameling Consecutive sameling Consecutive sameling Consecutive sameling Consecutive sameling Consecutive sameling Consecutive sameling	Multicenter Monocenter Monocenter Monocenter Monocenter Monocenter Monocenter Monocenter Multicenter Multicenter Multicenter Multicenter Multicenter Multicenter Multicenter Monocenter Monocenter Monocenter	Prospetively Prospetively	Thelend United States of America United States of America United States of America United States of America Gresca Gresca Gresca Georgia Ethicolis Carrescon	Unclear Nat reported Nat reported Nat reported Nat reported Nat reported Nat report Nat reported Nat report Nat reported Nat report Nat re	20.5 20.5 20.5 36 Unclear/Not reported 47.9 33.8 33.8 33.8 33.8 33.3 33.8 33.8	33.4 33.4 33.4 35.6 50.8 50.8 50.8 50.8 50.8 50.8 50.8 50.8	Litteniscell Litteniscell Litteniscell Litteniscell Litten	Loor risk of bias Low risk of bias Modesser risk of bias Modesser risk of bias Modesser risk of bias	The other contentions to the content of the content	Darmiet Medical stadent inten. Hospital volunteer Name. Medical stadent inten. Hospital volunteer Name. State of the Commission of the Com	Salementement Commentement C	Ap HBs	Contract REVI Antonio And TREA a 1 Contract REVI Antonio And TREA a 1 Contract REVI Antonio And TREA a 1 Contract REVI Antonio	Secum Secum Secum Secum Secum Secum Secum Secum Secum Secum Secum Secum Secum Secum Secum
Proceedings Processing Pr	Yankot 1991 Tankot 1991 Technisarihi 2005 Techni	Cross sectional	Non probabilistic Probabilistic Probabilistic Non probabilistic No	Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Consecutive sampling Simple sandom sampling Simple sandom sampling Consecutive sampling	Multicentur Monno enter Monto enter Monto enter Molticentur Multicentur Monno enter Monno enter Monno enter Monno enter Monno enter Monno enter	Prospetively Prospetively	Thelend United States of America United States of America United States of America United States of America Gresca Gresca Gresca Georgia Ethicolis Carrescon	Inchast Not received	20.5 20.5 20.5 20.5 20.5 20.6 20.6 20.6 20.6 20.6 20.6 20.6 20.6	33.4 33.4 33.4 35.6 50.8 50.8 50.8 50.8 50.8 50.8 50.8 50.8	Usbanismi Usbanismi Usbanismi Usbanismi Usbanismi Usbanismi Usbani	Loov risk of bias Modessee risk of bias	South medicancianis (South medicancianis (Director Mindous's subsect mans. Hospital unbersease Name Manifest subsect mans. Hospital unbersease Name Mindous's subsect mans. Hospital unbersease Mindous's subsect mans. Hospital unbersease Mindous's subsect mans. Hospital unbersease Hospital unbersease HOWAN and suspectified HOWAN and	Substitutions American State Conference of the C	Ap 1995 Ap 199	Concest RIVI Annatoria (Leg PB) a 1 Concest RIVI Annatoria (Leg RIVI) Annatoria (Leg RIVI Annatoria (Leg RIVI) Annatoria (Leg R	Saturn
Property	Yandro 1991 Yandro 2019 Yandro 2017 Yandro 2017 Yandro 2017 Yandro 2017	Cross sectional	Non probabilists Probabilists Probabilists Non probabilis	Consessible sameling Consessible sameling Consessible sameling Consessible sameling Consessible sameling Consessible sameling Consessible sameling Consessible sameling Consessible sameling Simela saedom sameling Consessible sameling Consessible Consessible Consessible Consessible Consessible Consessible Consessible Consessible Consessible Consessible Consessible Consessible Consessible Consessible Consessible Consessible Consessibl	Multicentur Meroce enter Multicentur Multicentur Multicentur Meroce enter	Prospetiteshy	Thelend United States of America United States of America United States of America United States of America Gresca Gresca Gresca Georgia Ethicolis Carrescon	United Not recorded	20.5 20.5 20.5 20.5 20.5 20.5 20.6 Lincinsor/Not reported 42.2 33.8 33.8 33.3 Lincinsor/Not reported 33.3 Lincinsor/Not reported 41 26.6 42.6	33.4 33.4 33.4 35.6 50.8 50.8 50.8 50.8 50.8 50.8 50.8 50.8	Usbanismi Usbanismi Usbanismi Usbanismi Usbanismi Usbanismi Usbani	Loour risks of bissa Loour risks of bissa Modessesse risk of bissa Modessesse risk of bissa Modessesse risk of bissa Loour risks of bissa Loour risks of bissa Modessesse risk of bissa Loour risks of bissa	South medicascensis 1.50 of the medicascensis 1.50 of the medicascensis 1.50 of the medicascensis consistent on the securing of the medicascensis consistent of the securing of the medicascensis consistent of the securing of the securin	Director Michael and Architect (Manne). Hospital volunteer. Michael and adject (Manne). Hospital volunteer. Michael and Micha	Substructures Substructures	Ag 196s Ag 196s Ag 196s Ag 196s Ag 196s An ami-196s + An ami-196s + An ami-196s An ami-196s + An ami-196s + An ami-196s	Counted War Annual Annu	Sanum
Transferred Constrained	Tentes: 1991 Tentes: 1995 Tente	Cross sectional	Non probabilists Probabilists Probabilists Probabilists Non probabilists	Consessation sameling Consessation sameling Consessation sameling Consessation sameling Consessation sameling Consessation sameling Consessation sameling Simela sandom sameling Simela sandom sameling Simela sandom sameling Consessation sameling	Multicenter Monno enter Monto enter Monto enter Molticenter Molticenter Monno enter	Prospetiteshy	Treatment Lehend States of America Lehend States of America Lehend States of America Lehend States of America General	Inchast Not recorded	20.5 20.5 20.5 20.5 20.5 20.5 20.5 32.6 32.3 33.8 1.4/c/ciear/ Not reported 33.3 33.8 1.4/c/ciear/ Not reported 33.3 33.8 1.4/c/ciear/ Not reported 42.6.6 43.6 44.6 45.6 45.6 46.6 46.6 46.6 46.6 46	33.4 33.4 33.4 50.8 50.8 50.8 50.8 50.8 50.8 50.8 50.8	Usbanismi Usbanismi Usbanismi Usbanismi Usbanismi Usbanismi Usbani	Low risk of bias. Medicaner risk of bias. Low risk of bias. Low risk of bias. Low risk of bias. Low risk of bias.	Togeth undersacental Anne Professor Control of the State State State State State I professor State State State State State State State I professor State State State State State State State I professor State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State State	Director Michael at solvent release. Hearthy white freez. Michael at solvent release. Hearthy white freez. Michael at solvent release. Hearthy white release the Michael at solvent release. Michael at solvent release. Hearthy white release the Michael at solvent release. Hearthy white release the Michael at solvent release the Michael at solvent release. Hearthy white release the Michael at solvent release the Michael at solvent release. Hearthy are as appendix at the Michael at solvent release the Michael at solvent release. Hearthy are as appendix at the Michael at solvent release the Michael at solvent re	Subtractions and Subtra	Ap 1995. Ap 1995. Ap 1995. Ap 1995. Ap 1995. Ac armi-1995. Ap 1995. Ap 1995. Ap 1995. Ac armi-1995. Ap 1995. Ac armi-1995. Ap 1995. Ac armi-1995. Ac armi-19	Constant May Continue (In Mile 2) Continue (In Mile	Sanum
Process Proc	Yeshes 1991 Tanton 1991 Tanton 1991 Tanton 1991 Tanton 1991 Tanton 1991 Tanton 1992 Tanton	Cross sectional	Non probabilists Probabilists Probabilists Probabilists Non probabilists N	Consecutive sameling Consecutive sameling	Multicentur Menore senter Multicentur Multicentur Multicentur Multicentur Menore senter M	Prosserbiety	Theiland States of Arrestica United States of Arrestica United States of Arrestica United States of Arrestica United States of Arrestica Greacea Greac	Inchast Not received.	20.5 20.5 20.5 20.5 20.5 20.5 20.5 20.6 20.6 20.6 20.6 20.6 20.6 20.6 20.6	33.4 33.4 33.4 33.4 50.8 50.8 50.8 50.8 25 8.8 8.8 8.8 15.8 15.8 15.8 15.8 15.8 1	Ukbarinasi Ukbarinasi Ukbarinasi Ukbarinasi Ukbarinasi Ukbari	Low risk of bias.	Another ministration and another in contrastive another in c	Dereins Medical attellion remon Health unbefase Medical attellion remon Health unbefase Medical attellion remon Health unbefase Medical attellion remon Health unbefase He	Salestonesses George	Ap 190s Ab 190	Commental Conference (August 1992), and a second conferen	Sanum
Proceedings	Tanks: 1991 Tanks: 1991 Tanks: 1991 Tanks: 1991 Tanks: 1992	Cross sectional	Non probabilists Mon probabilists Mon probabilists Non probabilists Non probabilists Non probabilists Non probabilists Non probabilists Probabilists Probabilists Non probabilists	Certactive sameling Certactive sameling Simela suckni sameling Simela suckni sameling Certactive sameling Certactive Cer	Audicentar Monocenter Monocenter Monocenter Monocenter Monocenter Monocenter Mulicenter Mulicenter Mulicenter Mulicenter Monocenter Monoce	Prosserbiety	Theiland States of Arrestica United States of Arrestica United States of Arrestica United States of Arrestica United States of Arrestica Greacea Greac	Inchast Not received.	20.5 20.5 20.5 20.5 20.5 20.5 20.5 20.6 20.6 20.6 20.6 20.6 20.6 20.6 20.6	33.4 33.4 33.4 33.4 50.8 50.8 50.8 50.8 25 8.8 8.8 8.8 15.8 15.8 15.8 15.8 15.8 1	Ukbarinasi Ukbarinasi Ukbarinasi Ukbarinasi Ukbarinasi Ukbari	Low risk of bias. Modesteer risk of bias. Modesteer risk of bias. Modesteer risk of bias. Low risk of bias.	Code medicanismo. See the code of the cod	Directors Michael and Selection Principle volunteers Michael and adject trees. Pleasand volunteer Michael and adject trees. Pleasand volunteer Michael and Pleasand volunteers Michael and Anders and Pleasand volunteers Michael and Anders and Pleasand volunteers Michael and Anders and Pleasand volunteers Michael and Michael and Michael and Michael Michael and Michael and Michael Michael and Michael and Michael Michael Michael and Michael Michae	Subtractions Subtractions Management M	\$\text{\$\tex{\$\text{\$\te	Constant Mary Annies (Ind. 18) a. 1	Sanum
Property Constraint State Stat	Tanks, 1991 Tanks, 1991 Tanks, 1991 Tanks, 1991 Tanks, 1992 Tanks, 1995 Tanks,	Cross sectional	Non-probabilists Mon-serobabilists Mon-serobabilists Mon-serobabilists Mon-probabilists Mon-probabilists Mon-probabilists Probabilists Probabilists Probabilists Mon-probabilists Mon-probabilists Non-probabilists Non-probabilist	Cereactive asserting Connective asserting Connective Connecti	Multicentur Monoperitare Monoperitare Monoperitare Monoperitare Monoperitare Monoperitare Monoperitare Monoperitare Monoperitare Multicentur Multicentur Multicentur Multicentur Multicentur Monoperitare Multicentur Multicent	Prosserbiety	Theleant Allean of Jerusica United States of Jerusica United States of Jerusica United States of Jerusica United States of Jerusica General States States of Jerusica General States of Jerusica General Carendon States of Jerusica General United States of Jerusica Officeralia	Scholar Pin specified Scholar Strategies Scho	20.5 20.5 20.5 20.5 20.5 20.5 20.5 20.5	33.4 33.4 33.4 50.8 50.8 50.8 50.8 50.8 50.8 50.8 50.8	Mistorinarial Mistorinarial Urbandrinaria Ur	Low risk of bias.	Continued account of the continued account of	Depute Medical Administration Variable colorates (Medical Administration Variable colorates) (Medical Administ	Substitutions A. Service Conference Conferen	And 1988 And	Constability Control (Mrs. 2). Constability Control (Mrs. 2).	Sanum
Process Column	Tanks: 1991 Tanks: 1991 Tanks: 1991 Tanks: 1991 Tanks: 1992 Tanks: 1995 Tanks:	Cross sectional	Non-probabilists Non-scotabilists Non-scotabilists Non-scotabilists Non-scotabilists Non-scotabilists Non-scotabilists Non-scotabilists Probabilists Probabilists Non-probabilists Non-scotabilists Non-scotabilis	Corresción amentes con constituir a mente de consecuencia de c	Multicenter Moroportiste	Prosentively	Thebane of Jeruscia Linked States of Jeruscia General States of Jeruscia States of Jeruscia Linked States of Jeruscia Linke	Soldar En accorded	20.5 20.5 20.5 20.5 20.5 20.5 20.5 20.5	33.4 33.4 33.4 33.4 50.8 50.8 50.8 50.8 50.8 10.8 10.8 10.8 10.8 10.8 10.8 10.8 1	Mistorinarial Mistorinarial Urbandrinaria Ur	Low risk of bias.	Chan made account	Dentet Medical Andersteine "Versiell" obstesse. Medical Andersteine "Versiell" obstesse. Medical Andersteine Transpirel obstesse. Medical Andersteine Transpirel obstesse. SCHO 2014 Anne Medical Obst	Substitutions Assessment Section 1997 (1997)	0.0 15 May 10 Ma	Commental Registration (Aufth 2), and a second control of the cont	Sacon Secon
Cont. activity Cont	Tanks, 1991 Tanks, 1991 Tanks, 1991 Tanks, 1991 Tanks, 1991 Tanks, 1995 Tanks,	Cross sectional	Non-probabilists Non-contact-plass Non-contact-p	Certacation assenting Certacation Certacation Certacation Certacation Certacation Certacation Certacation assenting Certacation Certacation assenting Certacation Certacation assenting Certacation Certacation assenting Certacation Ce	Multicenter Moroccentral Moroccentral Moroccentral Moroccentral Moroccentral Moroccentral Multicenter Multicenter Multicenter Multicenter Multicenter Multicenter Multicenter Multicenter Multicenter Moroccentral Moroccentral Moroccentral Multicenter Multicenter Moroccentral Multicenter Multicen	Possesheaty	Treatment of Permittina United States of Permittina United States of Permittina United States of Permittina General General Permittina General Genera	Solution The second	20.5. 20.5.	33.4 33.4 33.4 33.4 33.4 33.4 33.4 33.4	Historicarial Historicarial Urbanicarial Urbanicaria Urbanicaria Urbanicaria Historicaria Urbanicaria Historicaria Histori	Low risk of biase. Modesteer risk of biase. Modesteer risk of biase. Modesteer risk of biase. Modesteer risk of biase. Low risk of biase.	Continued account of the continued account of	Doublet State Laboration Variable of principal Should be sho	Subtractions and Subtractions (Subtractions	0.0 128 s. - And 128 s. - An	Constability Control (Mrs. 2) Control (Mrs. 2)	Sacon Secon
Part	Tanks, 1993	Cross sectional	Non-probabilists Non-pr	Corresciolos asmelinos Corresciolos asmelinos Corresciolos Corresciolos asmelinos Corresciolos asmelinos Corresciolos asmelinos Corresciolos asmelinos Corresciolos asmelinos Corresciolos asmelinos Corresciolos Corresciolos Corresciolos Corresciolos Corresciolos Corresciolos Corresciolos Corresciolos	Multicenter Monoperatie	Possesheaty	Treatment of American United States of American United States of American United States of American Control of American General Genera	Johnson Eric ancested Televis and Control	20.5. 20.5.	33.4 33.4 33.4 33.6 30.8 30.8 30.8 30.8 30.8 30.8 30.8 30.8	Internet Int	Low risk of bias.	And marked accounts. And the Control of the Contro	Souther Section 1 States of Contract Section 1	Substitutions Action State Control State Con	0.0 1958	Consent Mill Continue (March 2) Continue (March	Sacon
Part Data Street Data Street Data Dat	Fanks 1981 Trachasper 2005 Trachasper	Cross sectional Cross sectiona	Non probabiliste. Non rendabiliste. Non rendabiliste. Non rendabiliste. Non rendabiliste. Non rendabiliste. Non rendabiliste. Probabiliste. Probabiliste. Probabiliste. Probabiliste. Probabiliste. Non rendabiliste. Non rendabiliste. Probabiliste. Probabiliste. Probabiliste.	Certacation assessing Certacation assessing	Multicenter Moroscentine	Possesheaty	Treatment of American United States of American United States of American United States of American Control of American General Genera	Johnson Filt recorded Mary 2000 A Account of the Control of the C	20.5. 20.5.	33.4	Internet Int	Low risks of biase.	South and section of the section of	Double Montal State Stat	Substitution of the Conference	0.0 1958 A 100 1959 A	Comment Will Andread Scholler & Comment & Commen	Sacon
Part 171 Cost activated Part	Tanks 1921 Tanks 1922	Cross sectional Cross sectiona	Non probabiliste. Non restabiliste. Probabiliste. Probabiliste. Probabiliste. Probabiliste. Probabiliste.	Certacatón amentino (Certacatón amentino (Certacató	Mallicenter Marconentral Mallicentral Marconentral	Passatolet	Treatment of American United States of American General Francis General Francis General Francis General Genera	Select File (Select Select S	2015 2025 2025 2025 2025 2025 2025 2025	33.4 33.4 33.5 33.6 30.8 30.8 30.8 30.8 30.8 30.8 30.8 30.8	Alternatural Library and Control of Control	Low risk of bias. Modesness risk of bias. Modesness risk of bias. Modesness risk of bias. Modesness risk of bias.	Code medicantello.	Souther. See See See See See See See See See Se	Subtractions And Subtra	0.0 1916 A 1916	Constant Microbian Land May 2 (1) Constant Microbian Land Ma	Sacon Jacon
Part	Table 1981 Table 1982	Cross sectional	Non probabiliste. Non restabiliste. Probabiliste. Probabiliste. Probabiliste. Probabiliste. Probabiliste.	Certacatón amentino (Certacatón amentino (Certacató	Mallicenter Marconentral Mallicentral Marconentral	Passatolet	Treatment of American United States of American General Francis General Francis General Francis General Genera	Select File (Select Select S	2015. 2016. 2016. 2017. 2018.	33.4 33.4 33.5 33.6 30.8 30.8 30.8 30.8 30.8 30.8 30.8 30.8	Alternatural Library and Control of Control	Low risks of beam. Modenness risks of beam. Modenness risks of beam.	And market according to the control of the control	Southern Section of States	Substantionness Substantionn	0.0 128 a. 1.0 12	Constant Microbian Land May 2 (1) Constant Microbian Land Ma	Sacon Jacon
Part Data Service Part Decision Part	Table 1981 Table 1982	Cross sectional Cross sectiona	Non probabiliste. Non restabiliste. Probabiliste. Probabiliste. Probabiliste. Probabiliste. Probabiliste.	Certacation amenting Certacation Cer	Mallicenter Marconentral Mallicentral Marconentral	Passatolet	Treatment of American United States of American General Francis General Francis General Francis General Genera	Johnson Erit recorded. Johnson Erit recorded. Johnson Erit recorded. Marchites Annotes Sanctions Ma	2015. 2015. 2016. 2017. 2018. 2019.	33.4 33.4 33.5 33.6 30.8 30.8 30.8 30.8 30.8 30.8 30.8 30.8	Alternatural Library and Control of Control	Lower that of beautiful countries of beautifu	Chan made account. Chan made account. Chan made account. Chan Land Land Land Land Land Land Land La	Southern Communication of the	Subtrancements (Subtrancements (Subtra	0.0 120 a. 1.0 12	Comment Mill Control (March 2014) Control (Secon Secon
Past 2011	Tanks. 1987 Tanks. 1987 Tanks. 1987 Tanks. 1987 Tanks. 1987 Tanks. 1987 Tanks. 1988 Tanks	Cross sectional Cross sectiona	Non probabiliste. Son escabaliste. Non escabaliste.	Cereas edus amentinos concentrales e consensiones amentinos consensiones e consen	Malticenter Morocentral	Passatolet	The batter of the control of the con	Johnson Eric Assessed Johnson Eric Assessed Marches Assessed Ma	2015. 2015.	33.4 33.4 33.5 33.6 30.8 30.8 30.8 30.8 30.8 30.8 30.8 30.8	Alternatural Library and Control of Control	Lower hind of blass Lower	Code management and code and c	Counted. Market Assisted Steam Versicher oderstaat Steden Assisted Steam Versicher oderstaat Steden Assisted Steam Versicher Steden Assisted Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Steam Ste	Substantionalism Accounts of the Control of the Co	0.0 128 h 1.0 128 h	Construction Control Construction Constructi	Secon Secon
Past	Tank. 1920	Cross sectional Cross sectiona	Non probabilistic Non cerchalitics Non cerchalitics Non cerchalitics Non cerchalitics Non cerchalitics Non cerchalitics Non cerchalitics Probabilistic Probabilistic Probabilistic Non cerchalitics Non cerchalitics No	Cereación amenteres (Cereación	Multiconster Macronicities (Macronicities Macronicities Ma	Passandary	The best of the state of the st	Scholar Eth scooled.	2015. See See See See See See See See See Se	33.4 33.4 33.5 33.6 30.8 30.8 30.8 30.8 30.8 30.8 30.8 30.8	Alternatural Library and Control of Control	Journal of Base Lorentine of Ba	And market account. And the second s	Southern Section of State of S	Salestonnesses Salestonnesses Salestonnesses Salestonnesses Salestonnesses Salestonnesses Salestonnesses Salestonnesses Salestonnesses Salestonnesses Salestonnesses Salestonnesses Sales	0.0 120 a. 0.0 12	Commental Confidence (Auch 20, 20) Control Confidence (Auch 20, 20) Cont	Sanon
Past 2015	Facts. 1987 Tachanara. 2005 Tachana. 2005 Tachanara. 2	Cross a sectional	Non probabiliste. Non schahliche. Probabiliste. Probabiliste. Non schahliche.	Censes de la assentira de l'anticolor de la constitución de la constit	Multiconster Macronicities (Macronicities Macronicities Ma	Passandary	Tradect States Manual Security States Manual	Solder Elit Resident	2015. 2016.	33.4 33.4 33.5 33.6 30.8 30.8 30.8 30.8 30.8 30.8 30.8 30.8	Alternatural Library and Control of Control	Journal of Johnson John Stein Stein Stein John Stein Stein Stein John Stein Stein John Stein Stein John Stein Stein John	Code medicarion (Code Code Code Code Code Code Code Code	Souther, Marchael and Parish and College (Marchael and College (Ma	Substitutionalism Conference of the Conference	0.0 120 a. 0.0 12	Comment and Commen	Sanon
Part 1911	Tanks. 1987 Tanks	Gross annional Constantion of Consta	Non probabilistic Non cerchal-listic Non cerchal-listic Non cerchal-listic Non cerchal-listic Non cerchal-listic Non cerchal-listic Non cerchal-listic Probabilistic Probabilistic Probabilistic Probabilistic Non cerchal-listic Non cer	Consución semble.	Multiconstar Microscinitis Monocontrate Monocontrate Monocontrate Monocontrate Monocontrate Multiconstar M	Passandary	Tradect States Manual Security States Manual	Scholar Eth scientific Scholar Eth scholar Eth scientific Scholar Eth scholar Eth scholar Eth scientific Scholar Eth scholar Eth scholar Eth scholar Eth scholar Et	2015. See See See See See See See See See Se	33.4 33.4 33.5 33.6 30.8 30.8 30.8 30.8 30.8 30.8 30.8 30.8	Johanner J. Manner J. Mann	Journal of Hase Lorentine of Ha	Code must des configurations and extenders installed a Code professionation of the code o	Souther, Secretary States and	Substantionness Substantionness Substantionness Substantion Substantionness MEU Substantion Substantionness MEU Substantion Substantionness MEU Substantion Substantionness MEU Substantionness MEU Substantionness Sub	0.0 150 A. 100 A	Construction Control Construction Control Construction Control Construction Control Construction Control Construction Control	Sacon
Part 1911	Table 1987 Table	Come amount Come actions Com	Non probabiliste. Non seriabiliste. Probabiliste. Non seriabiliste. Probabiliste. Probabiliste. Probabiliste. Probabiliste. Non seriabiliste. Non seriabilis	Consoción amenitar como como como como como como como com	Multiconstar Microscinitis Monocontrate Monocontrate Monocontrate Monocontrate Monocontrate Multiconstar M	Passandary	Tradect States Manual Security States Manual	Johnson Filt recorded. Johnson Filt recorded re	224.5	33.4 33.4 33.5 33.6 30.8 30.8 30.8 30.8 30.8 30.8 30.8 30.8	Johanner J. Manner J. Mann	Journal of Hase Lover that of Hase Lover tha	Chan made account	Southern Control State of Control State	Salestonesses Salestonesses	0.0 150. A 150.	Comment May Control (May 1), and a second control (May 1), and a second control (May 1) and a second control (May 1) and a second control (May 1), and a second control (May 1) and a second control (May 1), and a second control (May 1) and a second	Sacon
Past 2019 Cross services Description	Table 1987 Table	Compa mentional Compa mentiona	Non probabiliste. Non neinhaliste. Non neinhal	Consuction samples Consuction sa	Both center of the Comment of the Co	Prospectors Prospe	Tradecia Constantina de Constantina	Jackson Erit streeted.	2014. See See See See See See See See See Se	33.4 33.4 33.5 33.6 30.8 30.8 30.8 30.8 30.8 30.8 30.8 30.8	Johanner J. Mancher J.	Journal of Johnson John Stein Stein Stein John Stein Stein Stein John Stein Stein John Stein Stein John Stein Stein John	South and sections. South and sections are desirable sections and sections are desirable sections. South and sections are desirable sections are desirable sections. Social sections are desirable sections are desirable sections. Social sections are desirable sections are desirable sections. Social sections. S	Southern Control of State of State of Control of State	Selection contents Application contents Ap		Comment of Comment and Comment	Soon
Page 2017 Cons. services Proceedings	Tanks. 1981 Tanks.	Const entirols Const entirols	Non probabiliste. Non neinhaliste. Non neinhal	Consortion amening Consortion am	Both center of the Comment of the Co	Prospectors Prospe	Tradecia Control Contr	Scholar Eth scooled	2014 S.	33.4 33.4 33.5 33.6 30.8 30.8 30.8 30.8 30.8 30.8 30.8 30.8	Johanner J. Mancher J.	Sometimed of States Lower than of States Advances are than of States Lower than of St	Code man des constructions and a sharper in construction and a	Souther Section Proceedings of the Section Sec	Substitutionalism Generalism State Substitutionalism State Substitut	10-18 (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)	Commental Confidence (Auch 20, 20) Control Confidence (Auch 20, 20) Cont	Send
Page 2020 Cross section Publishin Studies asserting Studies Stud	Table 1980	Compa mentional Compa mentiona	Non probabiliste. Non neiskaliste. Portugen og neiskaliste. Portugen og neiskaliste. Portugen og neiskaliste. Portugen og neiskaliste. Non neiskaliste. Portugen og neiskaliste. Non nei	Consuming annular processing annular processing annular processing annular processing annular processing annular processing annual processing annular processing annu	Delication of the Control of the Con	PRODUCTOR PROSECUTOR P	Tributed Annual Planta of Description Annual Planta of Description Annual Planta of Annual Annual Planta of Annual Annual Planta of Annual Annua	Johnson Erit recorded	224 C. Service Control of the Control of Con	33.4 33.4 33.5 33.6 30.8 30.8 30.8 30.8 30.8 30.8 30.8 30.8	Johanner J. Mancher J.	Journal of Bases John College of Bases John	South made account and sea short the security of the company of th	Souther, Section of the Control of t	Subtractions of the Continue o		Commental Conference (Auch 2014) Commen	Sent
Zenz, 2019 Closes servinar Probabilistic Confesionaries Marconare Restricted	Table 1970	Compa mentional Compa mentiona	Non probabiliste. Non neiskaliste. Portugen og neiskaliste. Portugen og neiskaliste. Portugen og neiskaliste. Portugen og neiskaliste. Non neiskaliste. Portugen og neiskaliste. Non nei	Consuming samples (Consuming samples) (Consumi	Delication of the Control of the Con	PRODUCTOR PROSECUTOR P	Tributed Annual Planta of Description Annual Planta of Description Annual Planta of Annual Annual Planta of Annual Annual Planta of Annual Annua	Johnson Erit recorded	224 C. Service Control of the Control of Con	33.4 33.4 33.5 33.6 30.8 30.8 30.8 30.8 30.8 30.8 30.8 30.8	Johanner J. Mancher J.	Journal of Johnson John Stein Stein Stein Stein Stein John Stein Stein Stein Stein John Stein Stein Stein John Stein Stein Stein John	Code must describe a confidence de la referencia del ref	Souther, Section of the Control of t	Substantionals Substantionals Substantionals Substantiona	10.0 MB, 10.	Construction Conference (Construction Construction Constructio	Sent
Table 2019 Creat attribution Department Departmen	Tanks. 1981 Tanks	South amountal Control and Souther and Control Control and Control Control and Control Control and Control	Non personalities (Monte consideration (Mo	Consuming annular processing ann	Delication of the Control of the Con	PRODUCTOR PROSECUTOR P	Tributed and Familia and Famil	Scholar Filt recorded	224 C. Service Control of the Control of Con	TALL STATE OF THE	Shapined Janonese Jan	Journal of Management of Manag	Code must des constitution de constitution similaries (Code professionales de constitution similaries (Code professionales de code constitution de constit	Souther, Secretary Street, Sec	Salestonements General Commission (Scientific Commission (Scientifi	50 - 50 - 50 - 50 - 50 - 50 - 50 - 50 -	Construction Control Construction Control Construction Control Construction Control Construction Control Construction Control	Sent
Colors activated Production	Table 1920	South association (Control ass	Non personalities (Monte consideration (Mo	Construction amenda of	Data central Control of Control o	Proceedings of the Control of the Co	Tributed and Familia and Famil	Select S	2014. See See See See See See See See See Se	3.4.4. 3.4	Standards	Journal of Base. John State o	Som made account and account a	Souther, Section of the State of Contract	Selection contents Application contents Ap		Comment and Commen	Seen
Zubab Khan. 2016 Cross sectional Non-probabilistic Consequence Section Non-probabilistic Consequence Section Non-probabilistic Consequence Section Non-probabilistic Consequence Section Non-probabilistic Consequence N	Table 1970	Contact Section 2	Non probabilistic. Nan contabilistic.	Constanting amending a second programme of the constanting and	Hadronier Hammer	Parasitati, Parasi	Tributed and Facus and Fac	Scholar Filt specified	2014	33.4	STANDARD STA	John Hall States and S	Code market according to the control of the code of th	Southern Section Proceedings of the Control of the	Substantionness Accounts of the Continues of the Continu	16 - 18 - 18 - 18 - 18 - 18 - 18 - 18 -	Construction Conference (Construction Conferen	Seen
Edwards Mana 2019 Cross sectional Name probabilistic Consensation sampling Malatinemar Prospectively Paleisten Management Prospective Paleisten Pal	Table 1987 Table	Contact Section 2	Story personalistics: More controllation of the con	Constitution amendment of the control of the contro	Andrewson Comments of the Comm	Parasitable Paras	Tradecia and Joseph Company of the C	Scholar Ett proceeds	224 L	314.4 314.4 315.4	STANDARD STA	John Hard States	Code man des constructions and a shared an installand a compared and a construction and a	Southern Section Annual Assessment Section Sec	Salestonesses Salestonesses	16-18 Dec.	Commental Conference (Conference (Conferen	Soon
	Table 1987 Table	Cont. Cont	Non probabilistic Numerical Pr	Constantia amendra Constantia Consta	Debtocker Debtoc	Parasitable Paras	Tributed Anna State of Security Control of Se	Select S	2014. See See See See See See See See See Se	33.4	STANDARD AND AND AND AND AND AND AND AND AND AN	John Charles of Balles of	South and sections. South and sections are desirable sections of sections and sections are desirable sections. Section of the	Southern Communication Control of	Selection contents Application contents Ap		Comment of Comment and Comment	Soon

Supplementary Table 8. Subgroup analyses of worldwide prevalence of Hepatitis B virus in health care workers.

	Prevalence. % (95%CI)	95% Prediction interval	N Studies	N Participants	H (95%CI)	I ² (95%CI)	P heterogeneit	P difference subtypes
Current HBV infection								
Study Design								< 0.001
Case control	0.4 [0.1-0.7]	NA	2	2244	1	0	0.501	
Cohort (Baseline data)	0.3 [0-1.8]	NA	2	566	1.7 [1-3.6]	65.9 [0-92.3]	0.087	
Cross sectional	2.4 [2-2.8]	[0-11.1]	274	154924	4.2 [4-4.3]	94.3 [93.8-94.7]	< 0.001	
Sampling								0.522
Non probabilistic	2.3 [1.9-2.8]	[0-10.9]	231	149078	4.4 [4.3-4.6]	94.9 [94.5-95.3]	< 0.001	
Probabilistic	2.3 [1.5-3.4]	[0-10]	47	8656	2.2 [2-2.6]	80.2 [74.2-84.8]	< 0.001	
Timing of data collection								0.763
Prospetively	2.4 [2-2.8]	[0-11]	269	151711	4.2 [4-4.3]	94.3 [93.8-94.7]	< 0.001	
Retrospectively	1.8 [0.2-4.3]	[0-12.9]	9	6023	3 [2.3-3.9]	89 [81.4-93.5]	< 0.001	
Country								< 0.001
Albania	7.6 [5.2-10.2]	[0-29.9]	3	480	1 [1-1.5]	0 [0-58.2]	0.78	
Austria	0.6 [0.5-0.7]	NA	1	36000	NA	NA	1	
Belize	0.9 [0.1-2.3]	NA	1	330	NA	NA	1	
Brazil	0.3 [0-1.2]	[0-7.3]	4	4874	2.8 [1.8-4.3]	87.1 [69.1-94.6]	< 0.001	
Burkina Faso	12.6 [9-16.8]	NA	1	285	NA	NA	1	
Cameroon	6.4 [4.1-9.2]	[0.9-15.3]	14	2570	1.5 [1.1-2]	56.2 [20.4-75.9]	0.005	
Canada	0.1 [0-0.6]	[0-1.7]	4	786	1 [1-1]	0 [0-0]	0.972	
China	4.5 [3-6.1]	NA	1	693	NA	NA	1	
Czech Republic	4.9 [3.1-7]	NA	1	473	NA	NA	1	
Democratic Republic of the Congo	18.6 [11.4-27]	NA	1	97	NA	NA	1	
Denmark	0.1 [0-0.6]	[0-2.8]	7	5785	2.5 [1.8-3.5]	83.9 [68.5-91.8]	< 0.001	
Egypt	1.9 [0.7-3.5]	[0-10.2]	4	1301	1.5 [1-2.5]	53.4 [0-84.6]	0.092	
Ethiopia	4.3 [2.7-6.1]	[0.4-11.1]	13	2551	1.8 [1.3-2.4]	68.3 [43.6-82.2]	< 0.001	
Fiji	5 [4.1-5.9]	[3.5-6.8]	5	2632	1 [1-2.2]	5 [0-80.2]	0.378	
France	0.2 [0-0.7]	NA	1	863	NA	NA	1	
Georgia	2 [1.4-2.7]	NA	2	1683	1	0	0.893	
Germany	1.7 [0.7-3.1]	[0-9.3]	4	4542	1.8 [1-3]	67.9 [6.9-89]	0.025	
Ghana	1 [0.4-1.9]	NA	1	711	NA	NA	1	
Greece	0.8 [0.2-1.7]	NA	2	632	1	0	0.602	

	Prevalence. % (95%CI)	95% Prediction interval	N Studies	N Participants	H (95%CI)	I ² (95%CI)	P heterogeneit	P difference subtypes
India	1.9 [1.1-3.1]	[0-7.6]	15	10187	3.1 [2.5-3.7]	89.3 [84-92.8]	< 0.001	
Indonesia	6.2 [4.2-8.6]	NA	1	467	NA	NA	1	
Iran	0.6 [0-2.7]	[0-8.7]	7	1974	1.6 [1.1-2.5]	62.2 [13.9-83.4]	0.015	
Israel	1.2 [0.4-2.5]	[0-32.7]	3	1411	1.6 [1-3]	60.3 [0-88.7]	0.081	
Italy	0.4 [0-1.5]	[0-6.9]	8	2492	2.7 [2-3.7]	86.6 [75.7-92.6]	< 0.001	
Jamaïca	5.3 [3.6-7.4]	NA	1	562	NA	NA	1	
Japan	2.4 [1.1-4.2]	[0-10]	6	2023	2 [1.3-3]	75.6 [44.9-89.2]	0.001	
Kenya	10.1 [0.9-27.2]	NA	2	455	4.6 [2.7-8]	95.3 [86.2-98.4]	< 0.001	
Libya	1.4 [0.6-2.4]	[0.4-2.8]	7	950	1 [1-1.6]	0 [0-59.5]	0.634	
Malaysia	2.5 [1.3-4.2]	[0-8.6]	8	2258	1.8 [1.3-2.7]	70.6 [39-85.8]	0.001	
Mexico	0.1 [0-0.4]	NA	2	1143	1	0	0.571	
Morocco	0.2 [0-1.7]	[0-2.7]	6	267	1 [1-1.1]	0 [0-22.8]	0.896	
Nepal	1.4 [0-4.1]	NA	1	145	NA	NA	1	
Netherlands	1.6 [0.8-2.6]	NA	1	768	NA	NA	1	
Niger	14.5 [10-19.6]	NA	1	207	NA	NA	1	
Nigeria	9.8 [4.6-16.5]	[0-39.2]	11	1316	3.2 [2.5-4]	90.1 [84.3-93.8]	< 0.001	
North Korea	1.5 [0.3-3.5]	[0-24.4]	3	282	1 [1-3]	0 [0-88.6]	0.402	
Norway	0.3 [0-1.1]	NA	1	388	NA	NA	1	
Pakistan	2 [0.7-3.8]	[0-10]	14	3069	2.2 [1.7-2.8]	79.5 [66.4-87.5]	< 0.001	
Papua New Guinea	5.6 [1.9-10.9]	NA	1	107	NA	NA	1	
Poland	0.8 [0.3-1.5]	NA	2	1110	1.2	26.3	0.244	
Portugal	0 [0-0.1]	NA	1	3513	NA	NA	1	
Republic of the Congo	5.3 [1.8-10.3]	NA	1	113	NA	NA	1	
Romania	1.3 [0.5-2.5]	NA	1	524	NA	NA	1	
Rwanda	3 [1.4-5.1]	NA	1	336	NA	NA	1	
saudi arabia	0.1 [0-0.4]	[0-6.2]	3	900	1 [1-2.5]	0 [0-84.4]	0.513	
Saudi arabia	5.3 [3.3-7.7]	NA	2	430	1	0	0.388	
Saudi Arabia	0 [0-0.8]	NA	2	255	1	0	0.949	
Senegal	17.8 [15.2-20.6]	NA	1	775	NA	NA	1	
Sierra Leone	8.6 [6.6-10.9]	NA	2	658	1	0	0.407	
South Africa	4.5 [1.2-9.6]	[0-98.8]	3	907	3 [1.8-4.9]	88.7 [68.8-95.9]	< 0.001	
South Korea	2 [0.4-4.6]	NA	2	2139	2.5 [1.2-5.1]	84.3 [35.6-96.2]	0.012	
Sudan	2.8 [1-5.3]	[0-10.7]	8	833	1.4 [1-2.2]	52.3 [0-78.6]	0.04	
Sweden	0 [0-10.5]	NA	1	16	NA	NA	1	

	Prevalence. % (95%CI)	95% Prediction interval	N Studies	N Participants	H (95%CI)	I ² (95%CI)	P heterogeneit v	P difference subtypes
Tanzania	6.7 [5.1-8.5]	[4.2-9.7]	5	902	1 [1-1.5]	0 [0-55.7]	0.758	
Thailand	3.1 [1.1-5.9]	[0-13.6]	6	2087	2.2 [1.5-3.2]	78.5 [52.6-90.2]	< 0.001	
Togo	42.7 [34.8-50.7]	NA	1	150	NA	NA	1	
Tunisia	1.8 [1.1-2.6]	[0.9-2.8]	7	1497	1 [1-1.8]	0 [0-69.9]	0.443	
Turkey	1.6 [0.7-2.9]	[0-6.8]	8	2568	2 [1.4-2.9]	75.3 [50.2-87.7]	< 0.001	
Uganda	7.5 [5.1-10.3]	[2.9-13.6]	10	629	1.1 [1-1.6]	21 [0-61.2]	0.25	
United Kingdom	2.1 [0.2-5.5]	[0-21.5]	5	1152	2.9 [2-4.2]	88.2 [75.1-94.4]	< 0.001	
United States of America	1.1 [0.4-2]	[0-9.3]	35	37812	5.9 [5.4-6.5]	97.2 [96.6-97.6]	< 0.001	
Yemen	9.9 [7.6-12.6]	NA	1	543	NA	NA	1	
Country income level								< 0.001
Low-income economies	6.6 [4.8-8.6]	[0-20.7]	39	6289	2.7 [2.4-3.1]	86.3 [82.2-89.4]	< 0.001	
Lower-middle income economies	3.7 [2.7-4.8]	[0-15.7]	83	23415	3.5 [3.2-3.8]	91.7 [90.4-92.9]	< 0.001	
Upper-middle-income economies	2.2 [1.5-3]	[0-9.7]	59	23608	3.2 [2.9-3.5]	90.3 [88.3-92]	< 0.001	
High-income economies	0.9 [0.6-1.3]	[0-5.9]	96	104296	4.5 [4.2-4.8]	95 [94.4-95.6]	< 0.001	
WHO Region								< 0.001
Africa	7.5 [6-9.2]	[0.1-22.7]	68	12662	3 [2.7-3.3]	88.9 [86.6-90.8]	< 0.001	
America	0.9 [0.4-1.6]	[0-8]	47	45507	5.4 [5-5.9]	96.6 [96.1-97.1]	< 0.001	
Eastern Mediterranean	1.3 [0.8-1.9]	[0-6.2]	60	11476	1.9 [1.7-2.2]	72.3 [64.3-78.6]	< 0.001	
Europe	1.1 [0.7-1.5]	[0-5.3]	53	64943	3.7 [3.3-4]	92.5 [91-93.8]	< 0.001	
South-East Asia	2.3 [1.4-3.3]	[0-8.3]	23	12886	3 [2.5-3.5]	88.7 [84.4-91.8]	< 0.001	
Western Pacific	3 [2.3-3.8]	[0.5-7]	26	10134	1.9 [1.6-2.3]	73.1 [60.4-81.8]	< 0.001	
Recrutment setting								0.116
Rural	5.2 [1.7-10.2]	[0-28.5]	9	1736	3.4 [2.6-4.3]	91.3 [85.7-94.7]	< 0.001	
Urban	2.3 [1.7-3]	[0-13]	132	54113	4.3 [4-4.5]	94.5 [93.9-95.1]	< 0.001	
HCWs Classificiation								0.091
Health associate professionals	2.5 [1.3-4.1]	[0-11.8]	28	2938	2 [1.6-2.4]	74.1 [62.5-82.1]	< 0.001	
Health management and support personnel	4.5 [2.5-6.9]	[0-18.8]	23	3056	2.6 [2.2-3.1]	85.3 [79.2-89.7]	< 0.001	
Health professionals	1.9 [1.1-2.8]	[0-15.2]	91	23085	4 [3.8-4.3]	93.9 [93-94.6]	< 0.001	
Other health service providers not elsewhere classified	2.6 [1-4.9]	[0-16.6]	18	5333	3.9 [3.4-4.6]	93.5 [91.2-95.3]	< 0.001	
Personal care workers in health services	4.4 [1.8-7.9]	[0-18]	9	1375	2.1 [1.5-2.9]	76.7 [55.6-87.8]	< 0.001	
Acute HBV infection								

	Prevalence. % (95%CI)	95% Prediction interval	N Studies	N Participants	H (95%CI)	I ² (95%CI)	P heterogeneit v	P difference subtypes
Sampling								0.002
Non probabilistic	7.3 [1.9-15.5]	[0-47.2]	10	2882	6.5 [5.5-7.6]	97.6 [96.7-98.2]	< 0.001	
Probabilistic	0.5 [0.1-1.2]	NA	2	783	1	0	0.64	
Timing of data collection								< 0.001
Prospetively	6.4 [1.8-13.1]	[0-40.7]	11	3345	6.2 [5.3-7.2]	97.4 [96.4-98.1]	< 0.001	
Retrospectively	0 [0-0.5]	NA	1	320	NA	NA	1	
Country								< 0.001
Brazil	0.6 [0.1-1.6]	NA	1	474	NA	NA	1	
India	0 [0-0.3]	NA	2	687	1	0	0.846	
South Africa	0.6 [0-2.5]	NA	1	170	NA	NA	1	
Sweden	2.3 [1.3-3.4]	NA	1	797	NA	NA	1	
Thailand	23.8 [14.6-34.4]	[0-69.3]	4	542	2 [1.2-3.3]	75.3 [31.5-91.1]	0.007	
Turkey	5.4 [0-36.4]	NA	2	686	11 [7.9-15.1]	99.2 [98.4-99.6]	< 0.001	
Uganda	0.3 [0-1.4]	NA	1	309	NA	NA	1	
Country income level								< 0.001
High-income economies	2.3 [1.3-3.4]	NA	1	797	NA	NA	1	
Low-income economies	0.3 [0-1.4]	NA	1	309	NA	NA	1	
Lower-middle income economies	0 [0-0.3]	NA	2	687	1	0	0.846	
Upper-middle-income economies	11.1 [3-23]	[0-62.5]	8	1872	6.4 [5.4-7.7]	97.6 [96.5-98.3]	< 0.001	
WHO Region								0.032
Africa	0.4 [0-1.3]	NA	2	479	1	0	0.617	
America	0.6 [0.1-1.6]	NA	1	474	NA	NA	1	
Europe	4.2 [0-17.2]	[0-100]	3	1483	8.2 [6.2-10.9]	98.5 [97.4-99.2]	< 0.001	
South-East Asia	12.7 [1.8-30]	[0-82.5]	6	1229	6.8 [5.6-8.3]	97.8 [96.8-98.6]	< 0.001	
Recrutment setting								0.28
Rural	0.3 [0-1.4]	NA	1	309	NA	NA	1	
Urban	6.8 [0-33.7]	NA	2	840	10.4 [7.4-14.5]	99.1 [98.2-99.5]	< 0.001	
HCWs Classificiation								< 0.001
Health associate professionals	38.1 [18.3-60]	NA	1	21	NA	NA	1	
Health professionals	9.5 [0.1-27.7]	[0-98.8]	4	839	5.9 [4.4-7.8]	97.1 [94.9-98.4]	< 0.001	
Other health service providers not elsewhere classified	0 [0-0.3]	NA	2	570	1	0	0.931	
Immunity against HBV								
Study Design								0.639

	Prevalence. % (95%CI)	95% Prediction interval	N Studies	N Participants	H (95%CI)	I ² (95%CI)	P heterogeneit	P difference subtypes
Cohort (Baseline data)	61.6 [40.5-80.6]	[0-100]	4	1311	7.7 [6-9.8]	98.3 [97.3-99]	< 0.001	
Cross sectional	56.3 [48.8-63.7]	[2.4-100]	80	36311	14.2 [13.8-14.7]	99.5 [99.5-99.5]	< 0.001	
Sampling								0.683
Non probabilistic	57 [49.2-64.6]	[2.5-100]	75	35909	14.7 [14.3-15.2]	99.5 [99.5-99.6]	< 0.001	
Probabilistic	54.1 [42.3-65.8]	[15.6-90.1]	9	1713	4.3 [3.5-5.4]	94.7 [91.8-96.5]	< 0.001	
Timing of data collection								< 0.001
Prospetively	54.1 [46.7-61.5]	[2.8-99.5]	74	30643	12.9 [12.4-13.3]	99.4 [99.4-99.4]	< 0.001	
Retrospectively	80.5 [69.2-89.8]	[33.5-100]	9	6154	10.1 [8.9-11.5]	99 [98.7-99.2]	< 0.001	
Country								< 0.001
Australia	80 [78.1-81.9]	NA	1	1758	NA	NA	1	
Bulgaria	73.2 [68.2-78]	NA	1	314	NA	NA	1	
Cameroon	16 [9.4-23.9]	NA	1	100	NA	NA	1	
Denmark	0 [0-9.3]	NA	1	18	NA	NA	1	
France	92 [90.2-93.7]	NA	1	880	NA	NA	1	
Germany	55.9 [50-61.8]	NA	2	323	1.1	12.8	0.284	
Greece	77 [72.7-81]	NA	2	395	1	0	0.851	
India	72.1 [52-88.4]	[4.9-100]	9	1513	7.9 [6.9-9.2]	98.4 [97.9-98.8]	< 0.001	
Iran	82.8 [76.5-88.2]	[62.3-96.6]	8	1035	2 [1.4-2.8]	74.7 [48.9-87.5]	< 0.001	
Italy	74.9 [62.2-85.7]	[26-100]	6	9370	12.8 [11.2-14.6]	99.4 [99.2-99.5]	< 0.001	
Japan	88.6 [85.6-91.3]	NA	1	491	NA	NA	1	
Kenya	47.1 [41.4-52.8]	NA	1	295	NA	NA	1	
Morocco	44.4 [24.7-65]	[0-100]	4	98	1.8 [1.1-3.1]	69.2 [11.3-89.3]	0.021	
North Korea	52.3 [7.7-94.6]	[0-100]	4	571	11.8 [9.9-14.2]	99.3 [99-99.5]	< 0.001	
Norway	5 [4.2-5.9]	NA	1	2546	NA	NA	1	
Poland	53.7 [49.7-57.7]	NA	1	590	NA	NA	1	
Saudi Arabia	66.2 [40-88]	NA	2	683	7 [4.6-10.8]	98 [95.3-99.1]	< 0.001	
South Africa	44.1 [29.1-59.7]	NA	2	572	3.5 [1.9-6.5]	91.7 [71.3-97.6]	< 0.001	
Spain	60.2 [47.1-72.7]	NA	2	271	2.1 [1-4.3]	76.3 [0-94.6]	0.04	
Sweden	73.9 [51.2-91.3]	[0-100]	3	4077	14.5 [12-17.6]	99.5 [99.3-99.7]	< 0.001	
Tanzania	56.9 [52.9-60.8]	NA	1	598	NA	NA	1	
Thailand	29 [15-45.2]	[0-86.8]	5	1707	5.1 [3.9-6.7]	96.1 [93.3-97.7]	< 0.001	
Thaïland	11.4 [7.6-15.8]	NA	1	237	NA	NA	1	
Togo	66.7 [58.9-74]	NA	1	150	NA	NA	1	
Tunisia	51.4 [35-67.8]	[3.4-97.6]	7	1497	6.3 [5.2-7.7]	97.5 [96.3-98.3]	< 0.001	

	Prevalence. % (95%CI)	95% Prediction interval	N Studies	N Participants	H (95%CI)	I ² (95%CI)	P heterogeneit y	P difference subtypes
Turkey	93.9 [91-96.3]	NA	2	381	1	7.6	0.298	
Uganda	38.6 [33.2-44.1]	NA	1	311	NA	NA	1	
United States of America	31.1 [18.2-45.8]	[0-88.3]	13	6841	12.1 [11.1-13.3]	99.3 [99.2-99.4]	< 0.001	
Country income level								0.678
High-income economies	53.1 [42-64.1]	[0.5-100]	40	28814	18.9 [18.2-19.6]	99.7 [99.7-99.7]	< 0.001	
Low-income economies	52.6 [25.7-78.6]	NA	2	461	5.7 [3.5-9.3]	96.9 [92-98.8]	< 0.001	
Lower-middle income economies	57.3 [46.9-67.5]	[10.4-97]	23	4101	6.5 [5.9-7.2]	97.6 [97.1-98.1]	< 0.001	
Upper-middle-income economies	63.7 [50.3-76.2]	[7.7-100]	19	4246	8.4 [7.6-9.2]	98.6 [98.3-98.8]	< 0.001	
WHO Region								0.001
Africa	44.7 [34.7-54.8]	[12.7-79.4]	7	2026	4.5 [3.6-5.7]	95.1 [92.1-97]	< 0.001	
America	31.1 [18.2-45.8]	[0-88.3]	13	6841	12.1 [11.1-13.3]	99.3 [99.2-99.4]	< 0.001	
Eastern Mediterranean	65 [55.7-73.8]	[21.9-97.2]	21	3313	5.1 [4.5-5.8]	96.2 [95.1-97]	< 0.001	
Europe	67.4 [53.9-79.6]	[6.4-100]	22	19165	18.9 [18-19.8]	99.7 [99.7-99.7]	< 0.001	
South-East Asia	53.8 [38.2-69]	[1.7-99.9]	15	3457	8.7 [7.8-9.6]	98.7 [98.4-98.9]	< 0.001	
Western Pacific	64.1 [33.5-89.6]	[0-100]	6	2820	13.8 [12.2-15.7]	99.5 [99.3-99.6]	< 0.001	
Recrutment setting								< 0.001
Rural	38.6 [33.2-44.1]	NA	1	311	NA	NA	1	
Urban	68.4 [57.3-78.6]	[3.8-100]	42	15580	14 [13.4-14.7]	99.5 [99.4-99.5]	< 0.001	
HCWs Classificiation								0.001
Health associate professionals	72.1 [60.3-82.6]	[26.1-99.8]	11	1160	4.1 [3.3-4.9]	93.9 [90.9-95.9]	< 0.001	
Health management and support personnel	29.8 [12.9-50]	[0-96.9]	5	863	5.7 [4.4-7.3]	96.9 [94.9-98.1]	< 0.001	
Health professionals	54 [40.3-67.4]	[1.8-99.9]	21	5679	9.7 [8.9-10.5]	98.9 [98.7-99.1]	< 0.001	
Other health service providers not elsewhere classified	62.7 [47.8-76.5]	[10.4-99.6]	10	9136	13.6 [12.4-15]	99.5 [99.3-99.6]	< 0.001	
Personal care workers in health services	73 [63.1-81.9]	[0-100]	3	299	1.7 [1-3.1]	63.4 [0-89.5]	0.065	
Immunity against HBV due to natural infection								
Study Design								0.817
Case control	8.1 [4-13.4]	NA	1	135	NA	NA	1	
Cross sectional	8.8 [6.5-11.3]	[0-34.3]	61	25102	6.5 [6.1-6.9]	97.6 [97.3-97.9]	< 0.001	
Sampling		_						0.005
Non probabilistic	9.5 [7.1-12.2]	[0-35.9]	57	23243	6.5 [6.1-6.9]	97.6 [97.3-97.9]	< 0.001	

	Prevalence. % (95%CI)	95% Prediction interval	N Studies	N Participants	H (95%CI)	I ² (95%CI)	P heterogeneit	P difference subtypes
Probabilistic	2.7 [0.4-6.7]	[0-26.7]	5	1994	4.3 [3.2-5.8]	94.6 [90.2-97]	< 0.001	
Timing of data collection								0.001
Prospetively	8.7 [6.4-11.4]	[0-34.6]	54	24312	6.8 [6.4-7.3]	97.8 [97.6-98.1]	< 0.001	
Retrospectively	20.5 [13.1-29]	NA	2	102	1	0	0.485	
Country								< 0.001
Australia	1.4 [0-5.8]	NA	1	73	NA	NA	1	
Brazil	5.4 [1.9-10.4]	[0-29.1]	5	1480	3.1 [2.1-4.4]	89.4 [78.1-94.9]	< 0.001	
Cameroon	2.6 [0-7.7]	NA	1	77	NA	NA	1	
Canada	3.5 [0-17.7]	[0-100]	3	861	3.9 [2.5-6]	93.3 [83.8-97.2]	< 0.001	
Denmark	8.2 [3.2-15.2]	NA	1	85	NA	NA	1	
Ethiopia	45.3 [36.7-54]	[14.4-78.3]	4	385	1.6 [1-2.7]	60.2 [0-86.7]	0.056	
France	18.8 [10-29.3]	NA	1	64	NA	NA	1	
India	0 [0-0.4]	NA	1	437	NA	NA	1	
Indonesia	14.6 [11.5-17.9]	NA	1	467	NA	NA	1	
Iran	2 [1.4-2.8]	NA	1	1628	NA	NA	1	
Italy	0 [0-0.4]	[0-1.7]	5	1284	1.2 [1-2]	35.3 [0-75.7]	0.186	
Libya	25.9 [22-30]	NA	1	459	NA	NA	1	
New Zealand	12.8 [1-34.6]	NA	2	1454	9.3 [6.5-13.4]	98.9 [97.7-99.4]	< 0.001	
North Korea	20.7 [17.4-24.1]	NA	1	571	NA	NA	1	
Poland	15.5 [13.3-17.9]	NA	1	961	NA	NA	1	
Saudi Arabia	20.5 [13.1-29]	NA	2	102	1	0	0.485	
Sierra Leone	1.6 [0.6-3]	NA	1	447	NA	NA	1	
South Africa	11.3 [1.7-27.5]	NA	2	484	4.5 [2.6-7.7]	95 [84.8-98.3]	< 0.001	
Sweden	2.3 [1.3-3.4]	NA	1	797	NA	NA	1	
Thailand	8.4 [0.4-24.8]	NA	2	1491	7.4 [4.9-11.2]	98.2 [95.8-99.2]	< 0.001	
Tunisia	15.3 [13.5-17.2]	NA	1	1497	NA	NA	1	
Turkey	18.6 [14.8-22.7]	NA	1	366	NA	NA	1	
Uganda	1.3 [0-4.9]	NA	2	620	2.7 [1.3-5.3]	85.9 [43.3-96.5]	0.008	
United Kingdom	0.6 [0.1-1.5]	NA	1	507	NA	NA	1	
United States of America	10.1 [7.2-13.5]	[0.5-28.6]	20	8640	4.4 [3.8-5]	94.8 [93.2-96.1]	< 0.001	
Country income level								0.419
High-income economies	7.6 [5.1-10.5]	[0-31.7]	39	15399	6 [5.6-6.5]	97.3 [96.8-97.7]	< 0.001	
Low-income economies	20 [4.9-41.5]	[0-94.4]	7	1452	8.7 [7.4-10.2]	98.7 [98.2-99]	< 0.001	
Lower-middle income economies	3.8 [0-21.7]	[0-100]	3	2011	10 [7.8-12.8]	99 [98.4-99.4]	< 0.001	

	Prevalence. %	95% Prediction	N	N	H (95%CI)	I ² (95%CI)	P	P difference
	(95%CI)	interval	Studies	Participants			heterogeneit v	subtypes
Upper-middle-income economies	9.2 [5.1-14.3]	[0-35.1]	13	6375	6.1 [5.3-7.1]	97.3 [96.5-98]	< 0.001	
WHO Region								0.163
Africa	15.8 [5.6-29.7]	[0-75.4]	10	2013	7.4 [6.4-8.5]	98.2 [97.5-98.6]	< 0.001	
America	8.5 [6-11.4]	[0-27.8]	28	10981	4.7 [4.2-5.3]	95.5 [94.4-96.4]	< 0.001	
Eastern Mediterranean	15 [4.9-29.2]	[0-76.9]	5	3686	9.2 [7.6-11]	98.8 [98.3-99.2]	< 0.001	
Europe	3.3 [0.5-8.4]	[0-32.7]	11	4064	6.7 [5.8-7.7]	97.8 [97-98.3]	< 0.001	
South-East Asia	6.1 [0.7-16.2]	[0-75]	4	2395	7.7 [6.1-9.8]	98.3 [97.3-99]	< 0.001	
Western Pacific	11.2 [3.7-21.9]	[0-74.6]	4	2098	6.2 [4.7-8.2]	97.4 [95.5-98.5]	< 0.001	
Recrutment setting								0.005
Rural	2.7 [0.4-6.7]	[0-33.5]	4	1640	3.8 [2.7-5.5]	93.2 [85.8-96.7]	< 0.001	
Urban	10.4 [6.8-14.7]	[0-40.4]	29	13179	7.2 [6.6-7.8]	98.1 [97.7-98.4]	< 0.001	
HCWs Classificiation								< 0.001
Health associate professionals	21.5 [9.8-36]	[0-76.7]	6	847	4.5 [3.4-5.8]	95 [91.6-97.1]	< 0.001	
Health management and support personnel	27.5 [7.1-54.4]	[0-100]	4	337	5.1 [3.7-6.9]	96.1 [92.7-97.9]	< 0.001	
Health professionals	7.1 [4.1-10.7]	[0-29.2]	20	9126	5.7 [5.1-6.4]	96.9 [96.1-97.6]	< 0.001	
Other health service providers not elsewhere classified	0.6 [0-4.3]	[0-98.3]	3	1351	2.4 [1.4-4.2]	82.8 [47.4-94.4]	0.003	
Personal care workers in health services	18.3 [8.9-30]	NA	2	1059	1.9 [1-3.9]	71.4 [0-93.6]	0.062	

HBV: Hepatitis B virus; CI: confidence interval; NA: not applicable; UNSD: United Nations Statistics Division, WHO: World Health Organization.

Part	Supplementary Table 9. Univariable and n	nultivariable meta-regression a	nalysis on tl			us serological markers in he	alth care wo		-1
Probable Probable	Variables				e Model			Multivariable Mod	21
Sept 1985		Estimate	P-Value		OR(95% CI)	Estimate	P-Value	OR [95% CI]	
Comment				0.120					26.84%
Commentment			1	0.129	1				
Section									
Manuschiere		0.085 [-0.044-0.215]	0.198	0.508	1.09 [0.96 - 1.24]				1
Thing for other many	Non probabilistic		1	0.500	1				
Properties		0.011 [-0.021-0.043]	0.508	0.905	1.01 [0.98 - 1.04]				-
Description			1	0.805	1				+
The process	Retrospectively	-0.009 [-0.078-0.06]	0.805		0.99 [0.92 - 1.06]				
Accordance Acc				0					_
Amount of the control Amou		0.163 [0.129-0.198]	0		1.18 [1.14 - 1.22]				
March Marc	Lower-middle income economies	0.101 [0.074-0.128]	0		1.11 [1.08 - 1.14]				
AND		0.059 [0.03-0.088]	0	0	1.06 [1.03 - 1.09]				4
Annula			1	U	1		1	1	
Enging	America								
Second									-
Western Frobe									
Board		-0.108 [-0.1470.069]	0		0.9 [0.86 - 0.93]	-0.108[-0.1470.069]	0		
Water Company Compan			1	0.082	1				_
Company Comp		-0.071 [-0.15-0.009]	0.082		0.93 [0.86 - 1.01]				
Belief mangement of support proceed SOTT (2006 A 1907 SOTE 100 SOTE 100	HCWs Classificiation	,		0.109					
Region presents and		0.027 (0.024 0.100)	0.210		1				
Other both sorting proteins of relocated canded Other (1998-1491) Other both sorting proteins of relocations Other (1998-1491) Other Other (1998-1491) O				1					-
Resonal one works in what an access Control (Resonal Age 1866 1 1 1 1 1 1 1 1 1		-0.014 [-0.09-0.062]	0.718		0.99 [0.91 - 1.06]				
Counce (BW) reflection (a) filter 1 1 1 1 1 1 1 1 1 1	Personal care workers in health services			0.022					4
Control (BMY effection by 1889 of 1987) 111		1	1	0.032	 		_		4
Monte of Mellin age Varin Oxford INV Infection Oxford Inv Inv Infection Oxford Inv	Current HBV infection (Ag HBs +)				1.12 [1.01 - 1.24]				
Active March Mar	Mean or Median age Years								
Sampling	Acute HBV infection	0.0009 [0.0001-0.0017]	0.027	-	-				12.08%
No. optobablisis			<u>L</u>	0.145	<u> </u>		ш	<u> </u>	
Times Control Contro	Non probabilistic	0.000 0.000	1		1			1	1
Properties 1		-0.207 [-0.485-0.071]	0.145	0.205	0.81 [0.62 - 1.07]	-1.6609[-3.02210.2997]	0.0168	0.19 [0.05 - 0.74]	-
Marcine Med 1978			1	0.203	1				
High-incore commiss		-0.24 [-0.612-0.131]	0.205		0.79 [0.54 - 1.14]				
Law income accounts				0.139					
Layer models income concenses 0.155 (0.596 0.155) 0.025 0.038 (0.55.1.1) 0.005 0.0		-0.084 [-0.627-0.459]	0.761		0.92 [0.53 - 1.58]				
WHO Pagins		-0.125 [-0.595-0.345]			0.88 [0.55 - 1.41]				
Advisor		0.195 [-0.213-0.603]	0.35		1.22 [0.81 - 1.83]				4
America			1	0.294	1				+
Recrotion Setting		0.005 [-0.504-0.514]	0.984		1.01 [0.6 - 1.67]				+
Recruitment setting	Europe	0.129 [-0.251-0.509]	0.507		1.14 [0.78 - 1.66]				
Roral		0.289 [-0.056-0.633]	0.1	0.528	1.34 [0.95 - 1.88]				+
Man			1	0.520	1				+
Health associate predictionates	Urban	0.197 [-0.416-0.811]	0.528		1.22 [0.66 - 2.25]				
Health professionals			1	0.025	1			1	
Month Menth Merite provides not obsorbed classified 0.001 0.001 0.002		-0.354 [-0.805-0.097]	0.124		0.7 [0.45 - 1.1]	-0.0704[-0.5973-0.4565]	0.7934	0.93 [0.55 - 1.58]	+
Gender	Other health service providers not elsewhere classified	-0.641 [-1.1220.16]	0.009		0.53 [0.33 - 0.85]			0.24 [0.1 - 0.62]	
Immunity against HBV						0.0522[0.002.0.1027]	0.0416	105[1 111]	+
Sub-Design	Immunity against HBV	-0.0104 [-0.01850.0015]	0.010		0.99 [0.98 - 1]	0.0323[0.002-0.1027]	0.0410	1.05[1-1.11]	+
Cross sectional	Study Design			0.753					
Sampling		0.054 [0.202 0.292]	0.752		0.05 (0.69, 1.22.)				+
No probabilistic		-0.034 [-0.392-0.263]	0.733	0.754	0.93 [0.08 - 1.33]				+
Timing of data collection			1		1				
Prospetively		-0.038 [-0.275-0.2]	0.754	0.009	0.96 [0.76 - 1.22]		+	1	+
Retrospectively		<u> </u>	1	5.000	1				
High-income economies	Retrospectively	0.287 [0.075-0.499]	0.008		1.33 [1.08 - 1.65]				4
Low-income economies			1	0.743	.		+	1	+
Lower-middle income economies 0.04 0.15 0.053 0.272 1.11 0.92 - 1.34		-0.005 [-0.488-0.479]	0.985	1	1 [0.61 - 1.61]		1	1	+
Martica	Lower-middle income economies	0.04 [-0.136-0.215]	0.659		1.04 [0.87 - 1.24]				_
Africa		0.105 [-0.083-0.293]	0.272	0.000	1.11 [0.92 - 1.34]		+	1	+
America		<u> </u>	1	3.007	1				
Europe	America								
South-East Asin 0.092 [0.182-0.367] 0.599 1.1 [0.83 - 1.44]				1					-
Mestern Pacific 0.197 [-0.135-0.53] 0.245 1.22 [0.87 - 1.7]					1.1 [0.83 - 1.44]				1
Rural	Western Pacific				1.22 [0.87 - 1.7]				
Urban		1		0.427	ļ .	1	-	1	4
Health associate professionals		0.301 [-0.442-1.044]	0.427		1.35 [0.64 - 2.84]		+	1	+
Health management and support personnel	HCWs Classificiation	,		0.029					I
Health professionals		-0.43 [-0.715 0.145]	0.002	1	0.65[0.40_0.97]	-0.43[-0.715_0.145]	0.002	0.65[0.40_0.07]	+
Other health service providers not elsewhere classified 0.093 [322-0.136] 0.425 0.91 [0.72 - 1.15] 0.093[322-0.136] 0.425 0.91 [0.72 - 1.15] 0.093[322-0.136] 0.425 0.91 [0.72 - 1.15] 0.033[-0.313-0.378] 0.853 1.03 [0.73 - 1.46] 0.033[-0.313-0.378] 0.853 1.03 [0.73 - 1.46] 0.033[-0.313-0.378] 0.853 1.03 [0.73 - 1.46] 0.033[-0.313-0.378] 0.853 1.03 [0.73 - 1.46] 0.033[-0.313-0.378] 0.853 1.03 [0.73 - 1.46] 0.033[-0.313-0.378] 0.853 1.03 [0.73 - 1.46] 0.033[-0.313-0.378] 0.853 1.03 [0.73 - 1.46] 0.033[-0.313-0.378] 0.853 1.03 [0.73 - 1.46] 0.033[-0.313-0.378] 0.853 1.03 [0.73 - 1.46] 0.033[-0.313-0.378] 0.853 1.03 [0.73 - 1.46] 0.033[-0.313-0.378] 0.853 1.03 [0.73 - 1.46] 0.05 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.06 0.07 0.04 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07 0.07									+
Mean or Median age Years	Other health service providers not elsewhere classified	-0.093 [-0.322-0.136]	0.425		0.91 [0.72 - 1.15]	-0.093[-0.322-0.136]	0.425	0.91 [0.72 - 1.15]	1
Gender				1		0.033[-0.313-0.378]	0.853	1.03 [0.73 - 1.46]	4
Immunity against HBV due to natural infection				 			-	 	+
Case control 1 <t< td=""><td>Immunity against HBV due to natural infection</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.00%</td></t<>	Immunity against HBV due to natural infection								0.00%
Cross sectional 0.011 [-0.315-0.337] 0.947 1.01 [0.73 - 1.4] 0 Sampling 0.043 0.043 1 1 Probabilistic 0.151 [-0.298-0.005] 0.043 0.86 [0.74 - 1] 0 Timing of data collection 0.177 0.177 0 0 Prospetively 0.17 [-0.077-0.416] 0.177 0.19 [0.93 - 1.52] 0 Country income level 0.07 0.07 0 0 0 High-income economies 0.173 [0.033-0.312] 0.015 1.19 [1.03 - 1.37] 0				0.947			1		
Sampling		0.011 [-0.315-0.337]	0.947	1	1.01 [0.73 - 1.4]		+	1	+
Non probabilistic				0.043		<u> </u>		<u> </u>	
Timing of data collection	Non probabilistic	0.4845.0.000	1		1				
Prospetively 1 <t< td=""><td></td><td>-0.151 [-0.2980.005]</td><td>0.043</td><td>0.177</td><td>U.86 [U.74 - 1]</td><td></td><td></td><td></td><td>4</td></t<>		-0.151 [-0.2980.005]	0.043	0.177	U.86 [U.74 - 1]				4
Retrospectively 0.17 [-0.077-0.416] 0.177 1.19 [0.93 - 1.52] Country income level 0.07 0.07 High-income economies 1 0.03 1 Low-income economies 0.173 [0.033-0.312] 0.015 1.19 [1.03 - 1.37]	Prospetively	1	1		1				
High-income economies 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Retrospectively	0.17 [-0.077-0.416]	0.177		1.19 [0.93 - 1.52]				4
Low-income economies 0.173 [0.033-0.312] 0.015 [1.19 [1.03 - 1.37]			1	0.07	.				
		0.173 [0.033-0.312]	0.015		1.19 [1.03 - 1.37]				
power overeg power power power with Asket	Lower-middle income economies	-0.082 [-0.282-0.119]	0.423		0.92 [0.75 - 1.13]				

Upper-middle-income economies	0.027 [-0.08-0.134]	0.625		1.03 [0.92 - 1.14]				
WHO Region			0.046					
Africa	1			1	1		1	
America	-0.105 [-0.226-0.016]	0.09		0.9 [0.8 - 1.02]	-0.105[-0.226-0.016]	0.09	0.9 [0.8 - 1.02]	
Eastern Mediterranean	-0.006 [-0.186-0.174]	0.945		0.99 [0.83 - 1.19]	-0.006[-0.186-0.174]	0.945	0.99 [0.83 - 1.19]	
Europe	-0.217 [-0.360.074]	0.003		0.8 [0.7 - 0.93]	-0.217[-0.360.074]	0.003	0.8 [0.7 - 0.93]	
South-East Asia	-0.155 [-0.346-0.035]	0.11		0.86 [0.71 - 1.04]	-0.155[-0.346-0.035]	0.11	0.86 [0.71 - 1.04]	
Western Pacific	-0.065 [-0.257-0.127]	0.506		0.94 [0.77 - 1.14]	-0.065[-0.257-0.127]	0.506	0.94 [0.77 - 1.14]	
Recrutment setting			0.065					
Rural	1			1				
Urban	0.165 [-0.01-0.34]	0.065		1.18 [0.99 - 1.4]				
HCWs Classificiation			0)				
Health associate professionals	1			1				
Health management and support personnel	0.068 [-0.129-0.266]	0.497		1.07 [0.88 - 1.3]				
Health professionals	-0.211 [-0.3510.07]	0.003		0.81 [0.7 - 0.93]				
Other health service providers not elsewhere classified	-0.378 [-0.5940.162]	0.001		0.69 [0.55 - 0.85]				
Personal care workers in health services	-0.049 [-0.297-0.199]	0.699		0.95 [0.74 - 1.22]				
Infection Status			0.212					
Acutely infected (Ag HBs + IgM anti-HBc +)	1			1				
Immune due to natural infection (Ac anti-HBs + Ac anti- HBc +)	0.093 [-0.053-0.24]	0.212		1.1 [0.95 - 1.27]				
Mean or Median age Years	-0.0088 [-0.0206-0.0029]	0.1415		0.99 [0.98 - 1]				
Gender	-0.0016 [-0.0048-0.0017]	0.3454		1[1-1]				

Africa (68 Studies) Abiola, 2016 – Nigeria	Positive	Total	Prevalence (%) 95% CI Weight 2.08 [0.05; 11.07] 0.3%
Ajayi, 2007 – Nigeria Alese, 2016 – Nigeria Alese, 2016 – Nigeria Amsalu, 2016 – Ethiopia	18 0 1 2	420 +- 30 +	4.29[2.56; 6.69]0.4%0.00[0.00; 11.57]0.2%1.25[0.03; 6.77]0.3%1.32[0.16; 4.67]0.4%
Belo, 2000 – Nigeria	43	167 ————————————————————————————————————	25.75 [19.30; 33.08] 0.4%
Bilounga Ndongo, 2018 – Cameroon	108		5.92 [4.88; 7.10] 0.5%
Birguel, 2011 – Cameroon	17		18.28 [11.02; 27.65] 0.3%
Braka, 2006 – Uganda	8	94 	8.51 [3.75; 16.08] 0.3%
Braka, 2006 – Uganda	3		11.11 [2.35; 29.16] 0.2%
Braka, 2006 – Uganda	4		6.78 [1.88; 16.46] 0.3%
Braka, 2006 – Uganda	4	49 ————————————————————————————————————	8.16 [2.27; 19.60] 0.3%
Braka, 2006 – Uganda	7		12.73 [5.27; 24.48] 0.3%
Deby, 2015 – Republic of the Congo	6		5.31 [1.97; 11.20] 0.4%
Demsiss, 2018 – Ethiopia	17		4.17 [2.45; 6.59] 0.4%
Dorkenoo, 2014 – Togo Erhabor, 2007 – Nigeria Fritzche, 2013 – Cameroon	64 0 2	150 ————————————————————————————————————	42.67 [34.64; 50.99] 0.4% 0.00 [0.00; 24.71] 0.1% 4.17 [0.51; 14.25] 0.3% 6.25 [0.16; 30.23] 0.2%
Fritzche, 2013 – Cameroon Fritzche, 2013 – Cameroon Fritzche, 2013 – Cameroon Fritzche, 2013 – Cameroon	1 4 7	37 	6.25 [0.16; 30.23] 0.2% 2.70 [0.07; 14.16] 0.2% 10.00 [2.79; 23.66] 0.3% 7.29 [2.98; 14.45] 0.3%
Gebremariam, 2019 – Ethiopia	15	332 -	4.52[2.55; 7.34]0.4%2.50[0.92; 5.36]0.4%2.98[1.44; 5.41]0.4%7.50[2.80; 15.61]0.3%
Hebo, 2019 – Ethiopia	6	240 -	
Kateera, 2015 – Rwanda	10	336 -	
Kefenie, 1989 – Ethiopia	6	80 	7.50 [2.80; 15.61] 0.3%
Kefenie, 1989 – Ethiopia	8		9.30 [4.10; 17.51] 0.3%
Kefenie, 1989 – Ethiopia	19		10.11 [6.20; 15.33] 0.4%
Kefenie, 1989 – Ethiopia	2		6.45 [0.79; 21.42] 0.2%
Kefenie, 1989 – Ethiopia	3	34 	8.82 [1.86; 23.68] 0.2%
Kisangau, 2019 – Kenya	13		4.41 [2.37; 7.42] 0.4%
Kyelem, 2015 – Burkina Faso	36		12.63 [9.01; 17.06] 0.4%
Lule, 1989 – Kenya	29		18.12 [12.49; 24.98] 0.4%
Lungosi, 2019 – Democratic Republic of the Congo Massaquoi, 2018 – Sierra Leone Mosendane, 2012 – South Africa	18 36 3	97 ————————————————————————————————————	18.12 [12.49; 24.98] 0.4% 18.56 [11.38; 27.73] 0.3% 8.05 [5.70; 10.98] 0.4% 1.76 [0.37; 5.07] 0.4%
Mueller, 2015 – Tanzania Noah, 2013 – Cameroon Noah, 2013 – Cameroon	43 0 9 7	598 - 21 - 178 - 711 +	7.19 [5.25; 9.56] 0.4% 0.00 [0.00; 16.11] 0.2% 5.06 [2.34; 9.38] 0.4% 0.98 [0.40; 2.02] 0.4%
Obiri–Yeboah, 2019 – Ghana Odemuyiwa, 2001 – Nigeria Okwesili, 2015 – Nigeria Ola, 2012 – Nigeria	26 25 11	234	0.98 [0.40; 2.02] 0.4% 11.11 [7.39; 15.86] 0.4% 13.44 [8.89; 19.20] 0.4% 12.50 [6.41; 21.27] 0.3%
Olubuyide, 1997 – Nigeria	10	22	45.45 [24.39; 67.79] 0.2% 28.57 [13.22; 48.67] 0.2% 14.49 [10.00; 20.04] 0.4%
Olubuyide, 1997 – Nigeria	8	28	
Pellissier, 2012 – Niger	30	207 ——	
Qin, 2018 – Sierra Leone	21	211 ——	9.95 [6.27; 14.81] 0.4%
Romieu, 1989 – Senegal	138	775 ——	17.81 [15.18; 20.69] 0.4%
Shao, 2018 – Tanzania	5	81 ——	6.17 [2.03; 13.82] 0.3%
Shao, 2018 – Tanzania	5	56 ——	8.93 [2.96; 19.62] 0.3%
Shao, 2018 – Tanzania Shao, 2018 – Tanzania Sondlane, 2016 – South Africa	7 4 30	130 	5.38[2.19; 10.78]0.4%10.81[3.03; 25.42]0.2%9.55[6.54; 13.36]0.4%
Tatsilong, 2016 – Cameroon	0	17 ————————————————————————————————————	0.00 [0.00; 19.51] 0.2%
Tatsilong, 2016 – Cameroon	6		25.00 [9.77; 46.71] 0.2%
Tatsilong, 2016 – Cameroon	2		9.52 [1.17; 30.38] 0.2%
Tatsilong, 2016 – Cameroon	3		10.71 [2.27; 28.23] 0.2%
Tufa, 2016 – Cameroon Tufon, 2016 – Cameroon Windsor, 1984 – South Africa	41	643 +	6.38 [4.61; 8.55] 0.4%
	6	127 +	4.72 [1.75; 10.00] 0.4%
	14	423 +	3.31 [1.82; 5.49] 0.4%
Yizengaw, 2018 – Ethiopia	1	120 	0.83 [0.02; 4.56] 0.4%
Yizengaw, 2018 – Ethiopia	4		1.87 [0.51; 4.72] 0.4%
Yizengaw, 2018 – Ethiopia	1		4.35 [0.11; 21.95] 0.2%
Zibara, 2010 – Uganda	3	79 	3.80 [0.79; 10.70] 0.3%
Zibara, 2010 – Uganda	1		4.55 [0.12; 22.84] 0.2%
Zibara, 2010 – Uganda	1		4.00 [0.10; 20.35] 0.2%
Zibara, 2010 – Uganda	13		6.63 [3.58; 11.07] 0.4%
Zibara, 2010 – Uganda Random effect meta–analysis Heterogeneity: $I^2 = 88.9\%$ [86.6%; 90.8%], $\tau^2 = 0.0110$, μ	6	23 ————————————————————————————————————	26.09 [10.23; 48.41] 0.2% 7.51 [5.98; 9.17] 22.2%
America (47 Studies) Baldinger, 1986 – United States of America Bass, 1982 – United States of America	0 7	70 	0.00 [0.00; 5.13] 0.3% 8.43 [3.46; 16.61] 0.3%
Bass, 1962 – United States of America Bass, 1982 – United States of America Bellissimo–Rodrigues, 2006 – Brazil Berris, 1978 – Canada	7 2 1 1	15 + 135 + 288 +	13.33 [1.66; 40.46] 0.1% 0.74 [0.02; 4.06] 0.4% 0.35 [0.01; 1.92] 0.4%
Carneiro, 2003 – Brazil Ciorla, 2005 – Brazil Favero, 1981 – United States of America	0 13 275	2000 · 2419 • 11745 ·	0.00[0.00; 0.18]0.5%0.54[0.29; 0.92]0.5%2.34[2.08; 2.63]0.5%
Feldman, 1975 – United States of America Figueroa, 1994 – Jamaïca Fligner, 1989 – United States of America Froesner, 1975 – United States of America	3 30 0 6	236 + 562 + 85 + 470 +	1.27[0.26; 3.67]0.4%5.34[3.63; 7.53]0.4%0.00[0.00; 4.25]0.3%1.28[0.47; 2.76]0.4%
Gershon, 2007 – United States of America Gibas, 1992 – United States of America Grady, 1975 – United States of America	0 8 47	588 + 837 + 757 +	0.00[0.00; 0.63]0.4%0.96[0.41; 1.87]0.4%6.21[4.60; 8.17]0.4%
Grady, 1982 – United States of America Gutierrez, 2005 – Brazil Hadler, 1985 – United States of America Hakre, 1995 – Belize	7 3 33 3	1377 • 320 ÷ 5697 · 330 ÷	0.51 [0.20; 1.04] 0.5% 0.94 [0.19; 2.72] 0.4% 0.58 [0.40; 0.81] 0.5% 0.91 [0.19; 2.63] 0.4%
Hollinger, 1977 – United States of America	8	304 →	2.63[1.14; 5.12]0.4%0.00[0.00; 1.22]0.4%25.22[22.84; 27.72]0.5%
Iserson, 1984 – United States of America	0	300 ←	
Iserson, 1985 – United States of America	316	1253 →	
Kessler, 1985 – United States of America	5	301 ←	1.66[0.54; 3.83]0.4%0.00[0.00; 1.50]0.4%0.52[0.06; 1.85]0.4%0.00[0.00; 1.49]0.4%
Kessler, 1985 – United States of America	0	244 ←	
King, 1987 – Canada	2	388 ←	
Kuhls, 1987 – United States of America	0	246 ←	
Kunches, 1983 – United States of America	1	87 +	1.15 [0.03; 6.24] 0.3%
Lanphear, 1993 – United States of America	16		0.34 [0.19; 0.55] 0.5%
Levy, 1977 – United States of America	2		0.77 [0.09; 2.76] 0.4%
Lewis, 1973 – United States of America	8	1052	0.76 [0.33; 1.49] 0.4%
Leyden, 1985 – United States of America	3		0.51 [0.11; 1.49] 0.4%
Ly, 2014 – United States of America	3		1.90 [0.39; 5.45] 0.4%
Malm, 1986 – Canada	0		0.00 [0.00; 4.35] 0.3%
Malm, 1986 – Canada	0	27 · · · · · · · · · · · · · · · · · · ·	0.00 [0.00; 4.33] 0.3%
Malm, 1986 – Canada	0		0.00 [0.00; 12.77] 0.2%
Méndez–Sánchez, 2006 – Mexico	0		0.00 [0.00; 0.98] 0.4%
Mosley, 1975 – United States of America	9		0.72 [0.33; 1.37] 0.5%
Palmer, 1983 – Mexico Pattison, 1975 – United States of America Pepe, 1986 – United States of America	1 6 2	767 + 513 + 338 +	0.13 [0.00; 0.72] 0.4% 1.17 [0.43; 2.53] 0.4% 0.59 [0.07; 2.12] 0.4%
Reingold, 1988 – United States of America	9	434 +	2.07 [0.95; 3.90] 0.4%
Smith, 1976 – United States of America	3	174 +	1.72 [0.36; 4.96] 0.4%
Smith, 1976 – United States of America	1	125 +	0.80 [0.02; 4.38] 0.4%
Snydman, 1984 – United States of America	11	2109 •	0.52 [0.26; 0.93] 0.5%
Thomas, 1993 – United States of America Werman, 1997 – United States of America Wickliffe, 1978 – United States of America	1 0 0	943 → 107 ← 54 ←	0.11[0.00; 0.59]0.4%0.00[0.00; 3.39]0.4%0.00[0.00; 6.60]0.3%
Williams, 1974 – United States of America Random effect meta–analysis Heterogeneity: $I^2 = 96.6\%$ [96.1%; 97.1%], $\tau^2 = 0.0081$, μ	2 0 < 0.0001	304 ← 45507 ◊	0.66 [0.08; 2.36] 0.4% 0.89 [0.39; 1.56] 19.0%
Eastern Mediterranean (59 Studies) Abdul Mujeeb, 1994 – Pakistan Abdul Mujeeb, 1994 – Pakistan	7 1	35 — 	20.00 [8.44; 36.94] 0.2% 5.00 [0.13; 24.87] 0.2%
Abdul Mujeeb, 1994 – Pakistan	10	145 	6.90 [3.36; 12.32] 0.4%
Ahmad Akhoundi, 2015 – Iran	7		0.43 [0.17; 0.88] 0.5%
Al– Sohaibani, 1995 – Saudi arabia	10		4.44 [2.15; 8.02] 0.4%
Al– Sohaibani, 1995 – Saudi arabia	13	205	6.34 [3.42; 10.60] 0.4%
Alqahtani, 2014 – saudi arabia	1	300 ←	0.33 [0.01; 1.84] 0.4%
Alqahtani, 2014 – saudi arabia	0	300 ←	0.00 [0.00; 1.22] 0.4%
Bahmani, 2010 – Iran	7	160 ←	4.38 [1.78; 8.81] 0.4%
Bahmani, 2010 – Iran	1	37 ————————————————————————————————————	2.70 [0.07; 14.16] 0.2%
Bahmani, 2010 – Iran	0		0.00 [0.00; 18.53] 0.2%
Bahmani, 2010 – Iran	1		1.09 [0.03; 5.91] 0.3%
Bahmani, 2010 – Iran	0	25 +	0.00 [0.00; 13.72] 0.2%
Bahmani, 2010 – Iran	0		0.00 [0.00; 23.16] 0.1%
Daw, 2000 – Libya	10		2.18 [1.05; 3.97] 0.4%
Djeriri, 2008 – Morocco	0		0.00 [0.00; 16.11] 0.2%
Djeriri, 2008 – Morocco	0	11 	0.00 [0.00; 28.49] 0.1%
Djeriri, 2008 – Morocco	0		0.00 [0.00; 6.60] 0.3%
Djeriri, 2008 – Morocco	0		0.00 [0.00; 26.46] 0.1%
Djeriri, 2008 – Morocco	2	133 - 36 	1.50 [0.18; 5.33] 0.4%
Djeriri, 2008 – Morocco	1		2.78 [0.07; 14.53] 0.2%
El-Hazmi, 2008 – Saudi Arabia	0		0.00 [0.00; 3.13] 0.4%
Elduma, 2011 – Sudan	4	106 	3.77 [1.04; 9.38] 0.4%
Elduma, 2011 – Sudan	6		8.22 [3.08; 17.04] 0.3%
Elduma, 2011 – Sudan	0		0.00 [0.00; 14.82] 0.2%
Elmaghloub, 2017 – Egypt	3		1.14 [0.24; 3.30] 0.4%
Elmaghloub, 2017 – Egypt Elmaghloub, 2017 – Egypt Elmukashfi, 2012 – Sudan	2 3 10	34 	5.88[0.72; 19.68]0.2%1.26[0.26; 3.62]0.4%5.56[2.70; 9.98]0.4%
Elmukashfi, 2012 – Sudan	0	72 +	0.00 [0.00; 4.99] 0.3%
Elmukashfi, 2012 – Sudan	0		0.00 [0.00; 8.41] 0.3%
Elmukashfi, 2012 – Sudan	1		6.67 [0.17; 31.95] 0.1%
Elmukashfi, 2012 – Sudan	15		4.66 [2.63; 7.57] 0.4%
Elzouki, 2014 – Libya Elzouki, 2014 – Libya Elzouki, 2014 – Libya	1 1 1	70 	1.43[0.04; 7.70]0.3%7.69[0.19; 36.03]0.1%4.00[0.10; 20.35]0.2%
Elzouki, 2014 – Libya	1	134 +- 188 61 765 +	0.75 [0.02; 4.09] 0.4%
Elzouki, 2014 – Libya	4		2.13 [0.58; 5.36] 0.4%
Elzouki, 2014 – Libya	2		3.28 [0.40; 11.35] 0.3%
Goldsmith, 1989 – Egypt	24		3.14 [2.02; 4.63] 0.4%
Memon, 2012 – Pakistan	10	1051 +	0.95[0.46; 1.74]0.4%4.62[0.96; 12.90]0.3%5.26[1.73; 11.86]0.3%
Mujeeb, 1998 – Pakistan	3	65 +	
Rehman, 1996 – Pakistan	5	95 +	
Saqib, 2016 – Pakistan	0	36 +	0.00 [0.00; 9.74] 0.2%
Saqib, 2016 – Pakistan	0		0.00 [0.00; 2.98] 0.4%
Saqib, 2016 – Pakistan	0		0.00 [0.00; 8.41] 0.3%
Saqib, 2016 – Pakistan	2		2.20 [0.27; 7.71] 0.3%
Sarwar, 2008 – Pakistan	7	100 	7.00 [2.86; 13.89] 0.3%
Sarwar, 2008 – Pakistan	0		0.00 [0.00; 21.80] 0.1%
Shabanah, 2019 – Saudi Arabia	0		0.00 [0.00; 2.62] 0.4%
Zayet, 2019 – Tunisia	2	190 + 382 + 45 + 160 + 1	1.05 [0.13; 3.75] 0.4%
Zayet, 2019 – Tunisia	8		2.09 [0.91; 4.08] 0.4%
Zayet, 2019 – Tunisia	0		0.00 [0.00; 7.87] 0.3%
Zayet, 2019 – Tunisia	1		0.62 [0.02; 3.43] 0.4%
Zayet, 2019 – Tunisia	11	442 +	2.49 [1.25; 4.41] 0.4%
Zayet, 2019 – Tunisia	6	161 +	3.73 [1.38; 7.93] 0.4%
Zayet, 2019 – Tunisia	2	117 +	1.71 [0.21; 6.04] 0.4%
Zuhaib Khan, 2016 – Pakistan Zuhaib Khan, 2016 – Pakistan Random effect meta–analysis Heterogeneity: $I^2 = 71.2\%$ [62.6%; 77.8%], $\tau^2 = 0.0034$, μ	4 4 0 < 0.0001	626 + 626 + 111 76 •	0.64[0.17; 1.63]0.4%0.64[0.17; 1.63]0.4%1.39[0.86; 2.01]18.9%
Europe (51 Studies) Aldershvile, 1978 – Denmark	0	1338 "	0.00 [0.00; 0.28] 0.5%
Ammon, 2000 – Germany	0	108 ←	0.00 [0.00; 3.36] 0.4%
Ammon, 2000 – Germany	2	215 ←	0.93 [0.11; 3.32] 0.4%
Antoniello, 1989 – Italy	16	335 ←	4.78 [2.75; 7.64] 0.4%
Bacârea, 2017 – Romania	7	524 +	1.34 [0.54; 2.73] 0.4%
Blanloeil, 1985 – France	2	863 •	0.23 [0.03; 0.83] 0.4% 2.02 [1.35; 2.91] 0.5% 2.27 [0.62; 5.72] 0.4%
Butsashvili, 2012 – Georgia	28	1386 •	
Dentico, 1991 – Italy	4	176 •	
Donchin, 1992 – Israel	14	783 + 2274 1439 + 590 +	1.79 [0.98; 2.98] 0.4%
Eskandarani, 2014 – Denmark	0		0.00 [0.00; 0.16] 0.5%
Fisker, 2003 – Denmark	13		0.90 [0.48; 1.54] 0.5%
Ganczak, 2010 – Poland	3		0.51 [0.10; 1.48] 0.4%
Garzillo, 2020 – Italy	0	158 ←	0.00[0.00; 2.31]0.4%0.00[0.00; 1.27]0.4%0.00[0.00; 0.72]0.4%
Garzillo, 2020 – Italy	0	288 ←	
Garzillo, 2020 – Italy	0	510 ←	
Gourbran, 1976 – United Kingdom	0	80 ←	0.00 [0.00; 4.51] 0.3%
Hansson, 1977 – Sweden	0	16 ←	0.00 [0.00; 20.59] 0.2%
Hardt, 1979 – Denmark	0	224 ←	0.00 [0.00; 1.63] 0.4%
Himmelreich, 2013 – Germany	16	449 ←	3.56 [2.05; 5.72] 0.4%
Hirschowitz, 1980 – United Kingdom Hofmann, 1988 – Austria Hurlen, 1980 – Norway	16 5 210 1	310 + 36000 · 388 +	1.61[0.53; 3.72]0.4%0.58[0.51; 0.67]0.5%0.26[0.01; 1.43]0.4%
Ingerslev, 1988 – Denmark Irmark, 2010 – Turkey Janzen, 1978 – Germany Kondili, 2007 – Albania	0 1 83 1	128 ← 223 ← 3770	0.00 [0.00; 2.84] 0.4% 0.45 [0.01; 2.47] 0.4% 2.20 [1.76; 2.72] 0.5% 4.55 [0.12; 22.84] 0.2%
Kondili, 2007 – Albania Kondili, 2007 – Albania Kosgeroglu, 2004 – Turkey	1 32 6 16	366 - 92 - 595 -	8.74 [6.06; 12.12] 0.4% 6.52 [2.43; 13.66] 0.3% 2.69 [1.54; 4.33] 0.4%
Kunst, 1973 – Netherlands Kuruuzum, 2008 – Turkey Marena, 1996 – Italy	12 5 1	768 + 366 + 165 +	1.56[0.81; 2.71]0.4%1.37[0.45; 3.16]0.4%0.61[0.02; 3.33]0.4%
Ozsoy, 2003 – Turkey	5	80 	6.25 [2.06; 13.99] 0.3%
Ozsoy, 2003 – Turkey	6		3.53 [1.31; 7.52] 0.4%
Ozsoy, 2003 – Turkey	5		2.28 [0.75; 5.25] 0.4%
Panis, 1986 – Greece	4		0.96 [0.26; 2.44] 0.4%
Pecenková, 1978 – Czech Republic	23	473 ←	4.86[3.11; 7.21]0.4%0.00[0.00; 2.46]0.4%0.00[0.00; 1.66]0.4%
Platkov, 2003 – Israel	0	148 ←	
Rapisarda, 2019 – Italy	0	220 ←	
Rybacki, 2013 – Poland	6	520 +	1.15[0.42; 2.49]0.4%0.00[0.00; 1.15]0.4%9.94[7.56; 12.78]0.4%3.20[0.88; 7.99]0.4%
Saç, 2019 – Turkey	0	320 +	
Shidrawi, 2004 – Yemen	54	543 +	
Sinclair, 1987 – United Kingdom	4	125 +	
Skinhøj, 1984 – Denmark	3	186 ←	1.61[0.33; 4.64]0.4%0.00[0.00; 1.86]0.4%0.49[0.06; 1.76]0.4%
Skinhøj, 1984 – Denmark	0	196 ←	
Smith, 1987 – United Kingdom	2	408 ←	
Spada, 2016 – Italy	0	640	0.00 [0.00; 0.57] 0.4%
Topka, 2012 – Greece	1		0.46 [0.01; 2.55] 0.4%
Topuridze, 2010 – Georgia	6		2.02 [0.74; 4.35] 0.4%
Vedeo, 2013 – United Kingdom	20		8.73 [5.42; 13.17] 0.4%
Vedeo, 2013 – United Kingdom Weiss, 1994 – Israel Random effect meta–analysis Heterogeneity: $I^2 = 92\%$ [90.3%; 93.4%], $\tau^2 = 0.0037$, $p < 0.0037$	9	480 * 60835 *	1.88 [0.86; 3.53] 0.4% 1.12 [0.72; 1.59] 20.6%
South-East Asia (23 Studies) Batra, 2015 – India Chiarakul, 2007 – Thailand	7	471 +	1.49 [0.60; 3.04] 0.4%
	14	326 ←	4.29 [2.37; 7.10] 0.4%
Chiarakul, 2007 – Thailand Chiarakul, 2007 – Thailand Chiarakul, 2007 – Thailand	1 13 1	21 +	4.76[0.12; 23.82]0.2%7.10[3.84; 11.84]0.4%8.33[0.21; 38.48]0.1%
Duseja, 2002 – India	61	3556 • 308 — 86 — 69 — • —	1.72 [1.31; 2.20] 0.5%
Elavia, 1992 – India	30		9.74 [6.67; 13.61] 0.4%
Elavia, 1992 – India	7		8.14 [3.34; 16.05] 0.3%
Elavia, 1992 – India	8		11.59 [5.14; 21.57] 0.3%
Ganju, 2000 – India	10	200 -	5.00 [2.42; 9.00] 0.4%
Goel, 2017 – India	0	479 -	0.00 [0.00; 0.77] 0.4%
Jha, 2012 – India	1	72 -	1.39 [0.04; 7.50] 0.3%
Kardam, 2014 – India	0	90 ←	0.00 [0.00; 4.02] 0.3%
Kardam, 2014 – India	3	150 ←	2.00 [0.41; 5.73] 0.4%
Luksamijarulkul, 2001 – Thailand	13	380 ←	3.42 [1.83; 5.78] 0.4%
Shah, 2017 – India	6	1347 •	0.45 [0.16; 0.97] 0.5%
Shrestha, 2006 – Nepal	2	145 +	1.38[0.17; 4.89]0.4%0.40[0.01; 2.21]0.4%0.97[0.60; 1.48]0.5%
Singh, 2010 – India	1	250 ←	
Sukriti, 2008 – India	21	2162 •	
Sukriti, 2008 – India	8	510 +	1.57 [0.68; 3.07] 0.4%
Taishete , 2016 – India	11	437 +	2.52 [1.26; 4.46] 0.4%
Techasathit, 2005 – Thailand	17	1165 +	1.46 [0.85; 2.33] 0.5%
Wijayadi, 2018 – Indonesia	29	467 +	6.21 [4.20; 8.80] 0.4%
Random effect meta–analysis Heterogeneity: $I^2 = 88.7\%$ [84.4%; 91.8%], $\tau^2 = 0.0039$, ρ		12886 ♦	6.21 [4.20; 8.80] 0.4% 2.29 [1.41; 3.34] 8.8%
Western Pacific (26 Studies) Bidivale, 1992 – Malaysia Fukumoto, 1989 – Japan Goh, 1988 – China	5	217 -	2.30 [0.75; 5.29] 0.4%
	21	1020 +	2.06 [1.28; 3.13] 0.4%
	31	693 -	4.47 [3.06; 6.29] 0.4%
Kashiwagi, 1985 – Japan	13	224 	5.80 [3.13; 9.72] 0.4%
Kashiwagi, 1985 – Japan	11		4.21 [2.12; 7.42] 0.4%
Kashiwagi, 1985 – Japan	5		3.52 [1.15; 8.03] 0.4%
Kashiwagi, 1985 – Japan	3	235 +	1.28 [0.26; 3.69] 0.4% 0.00 [0.00; 2.58] 0.4% 3.15 [2.39; 4.06] 0.5% 1.77 [0.22; 6.25] 0.4%
Nagao, 2008 – Japan	0	141 ←	
Shim, 2011 – South Korea	57	1812 +	
Shin, 2006 – North Korea	2	113 ←	
Shin, 2006 – North Korea Shin, 2006 – North Korea Song, 1999 – South Korea	3 0 3	113 	2.65 [0.55; 7.56] 0.4% 0.00 [0.00; 6.38] 0.3% 0.92 [0.19; 2.66] 0.4%
Tan, 1992 – Malaysia	0	32 +	0.00 [0.00; 10.89] 0.2%
Tan, 1992 – Malaysia	8		5.48 [2.40; 10.51] 0.4%
Tan, 1992 – Malaysia	1		0.65 [0.02; 3.56] 0.4%
Tan, 1992 – Malaysia	5		4.76 [1.56; 10.76] 0.4%
Tan, 1992 – Malaysia Tan, 1992 – Malaysia Tan, 1992 – Malaysia	4 35 11	162 	2.47[0.68; 6.20]0.4%4.98[3.49; 6.86]0.4%1.49[0.75; 2.65]0.4%
Taylor, 1991 – Fiji	8	210 + 1167 + 109 + -	3.81 [1.66; 7.37] 0.4%
Taylor, 1991 – Fiji	65		5.57 [4.32; 7.04] 0.5%
Taylor, 1991 – Fiji	8		7.34 [3.22; 13.95] 0.4%

15

39

6

2

242

904

107

10134

126 -

153326 V

10 20 30 40 50 60

6.20

4.31

5.61

3.00

1.59

1.59

2.39

[3.51; 10.02]

[3.09; 5.85]

[2.09; 11.81] 0.4%

[2.29; 3.80] 10.2%

[0.19; 5.62] 0.4%

[0.02; 4.72] 0.4%

[2.01; 2.79] 100.0%

0.4%

0.4%

Taylor, 1991 – Fiji

Taylor, 1991 – Fiji

Woodfield, 1976 - Papua New Guinea

Heterogeneity: $I^2 = 73.1\%$ [60.4%; 81.8%], $\tau^2 = 0.0018$, p < 0.0001

Overall random effect meta–analysis Residual heterogeneity: $I^2 = 91.3\%$ [90.5%; 92.0%], p = 0

Random effect meta-analysis

Unclear or Not reported (1 Study)

Berris, 1978 - Multiple countries

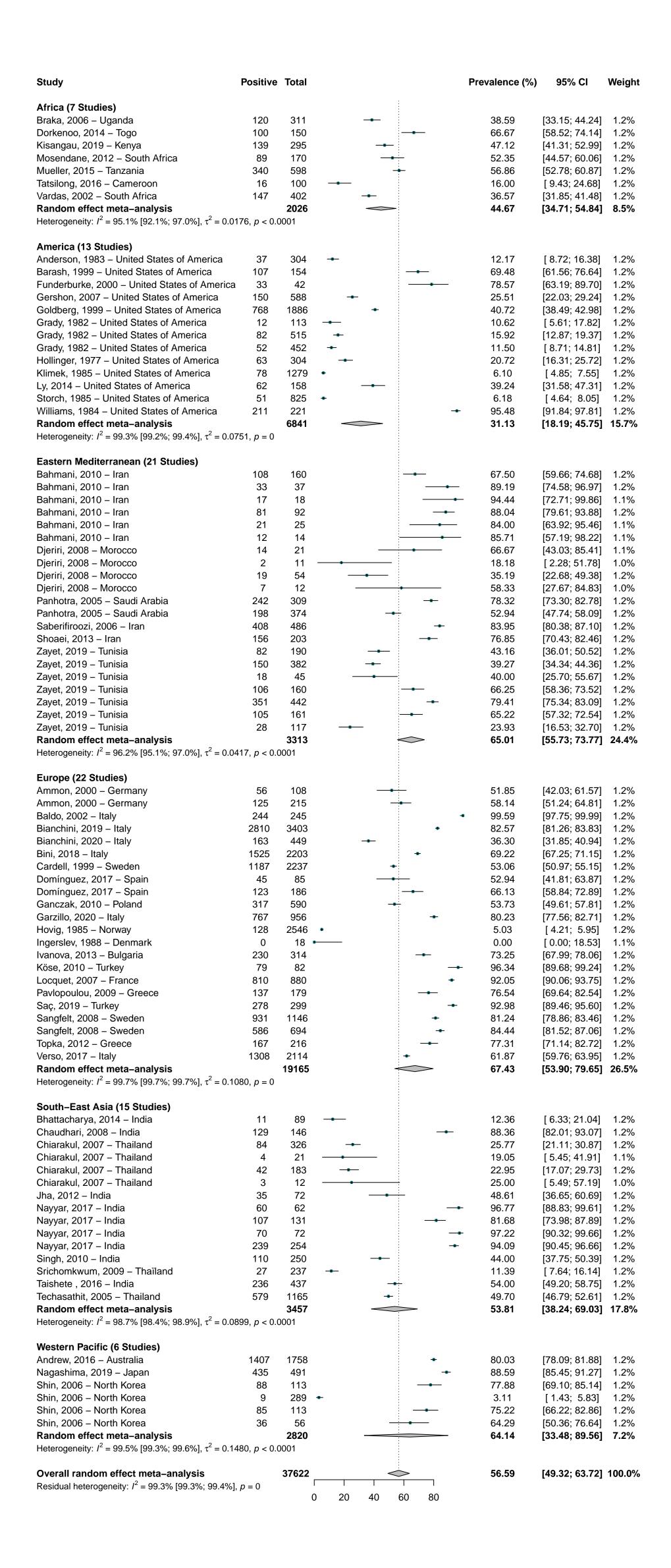
Random effect meta-analysis

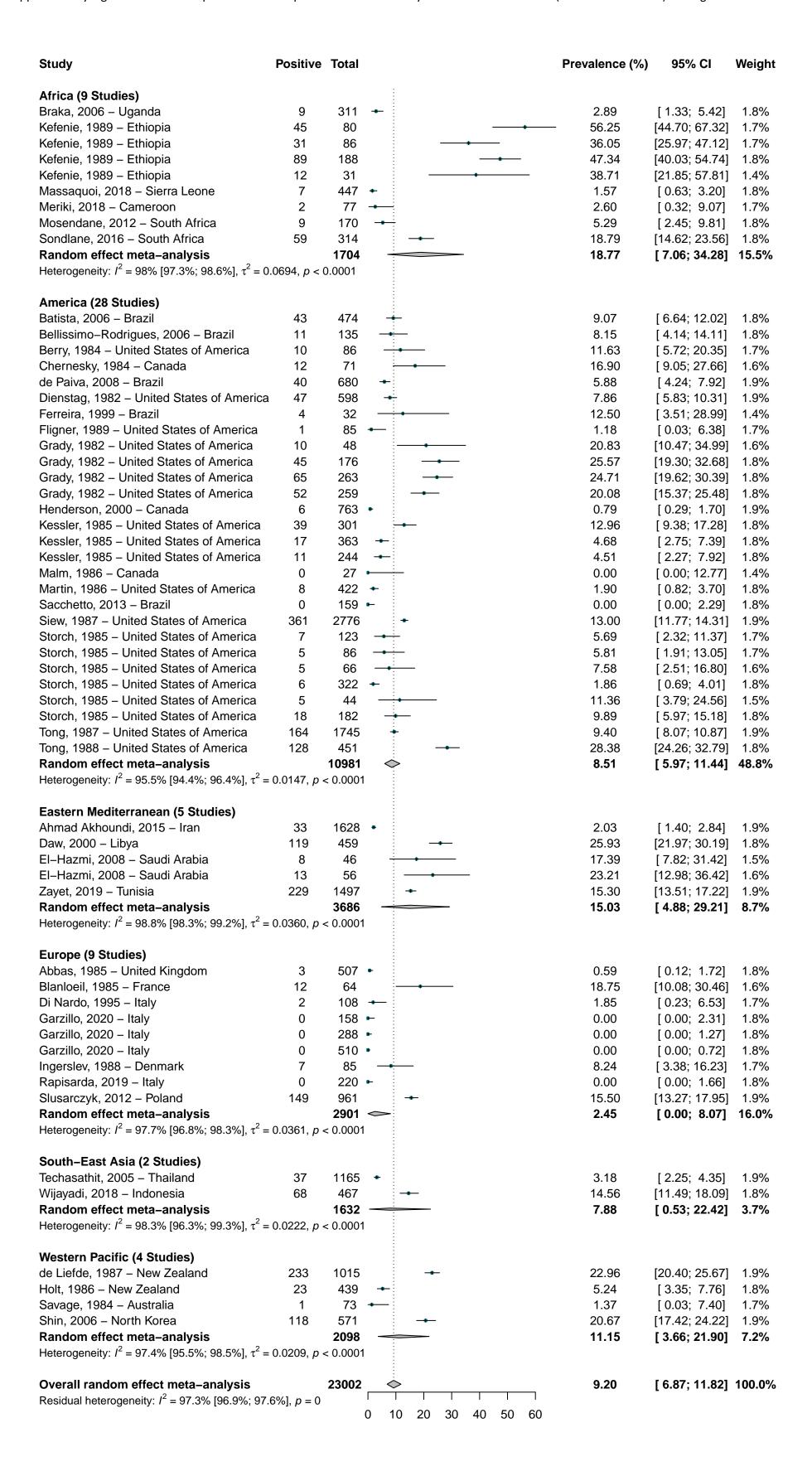
Heterogeneity: not applicable

Supplementary Figure 2: Global seroprevalence of Hepatitis B Virus current infections (HBeAg) among Healthcare Workers

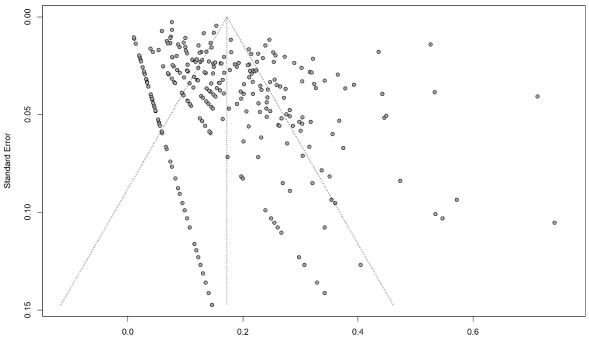
Study	Positive	Total	Prevalence (%)	95% CI	Weight
Eastern Mediterranean (1 Study)					
Alqahtani, 2014 – saudi arabia	0	300	0.00	[0.00; 1.22]	30.5%
Random effect meta-analysis		300	0.00	[0.00; 0.57]	30.5%
Heterogeneity: not applicable					
Europe (2 Studies)					
Kosgeroglu, 2004 – Turkey	10	595	 1.68	[0.81; 3.07]	33.3%
Marinho, 1999 – Portugal	1	3513 🖶	0.03	[0.00; 0.16]	36.2%
Random effect meta-analysis		4108	0.52	[0.00; 3.36]	69.5%
Heterogeneity: $I^2 = 96.1\%$ [89.2%; 98.6%],	$\tau^2 = 0.0061$, <i>p</i> < 0.0001			
Overall random effect meta-analysis		4408	0.28	[0.00; 1.74]	100.0%
Residual heterogeneity: $I^2 = 96.1\%$ [89.2%]	; 98.6%], <i>p</i>				
		0 0.5 1 1.5 2 2.5	5 3		

Study	Positive	e Total		Prevalence (%)	95% CI	Weight
Africa (2 Studies)		:				
Braka, 2006 - Uganda	1	309 🗷		0.32	[0.01; 1.79]	8.8%
Mosendane, 2012 - South Africa	1	170 🖶		0.59	[0.01; 3.23]	8.6%
Random effect meta-analysis		479 ♦		0.39	[0.00; 1.26]	17.4%
Heterogeneity: $I^2 = 0\%$, $\tau^2 = 0$, $p = 0.6172$						
America (1 Study)						
Batista, 2006 - Brazil	3	474 🗷		0.63	[0.13; 1.84]	8.9%
Random effect meta-analysis		474 ⋄		0.63	[0.08; 1.60]	8.9%
Heterogeneity: not applicable						
Europe (3 Studies)						
Kuruuzum, 2008 – Turkey	68	366	-	18.58	[14.73; 22.95]	8.8%
Saç, 2019 – Turkey	0	320 🖪		0.00	[0.00; 1.15]	8.8%
Struve , 1992 – Sweden	18	797 🗷		2.26	[1.34; 3.55]	8.9%
Random effect meta-analysis		1483 <		4.20	[0.00; 17.17]	26.6%
Heterogeneity: $I^2 = 98.5\%$ [97.4%; 99.2%]	$\tau^2 = 0.036$	9, <i>p</i> < 0.000	1			
South-East Asia (6 Studies)						
Chiarakul, 2007 - Thailand	52	326	-	15.95	[12.15; 20.39]	8.8%
Chiarakul, 2007 - Thailand	8	21		38.10	[18.11; 61.56]	6.6%
Chiarakul, 2007 - Thailand	38	183		20.77	[15.13; 27.37]	8.6%
Chiarakul, 2007 - Thailand	6	12		50.00	[21.09; 78.91]	5.5%
Singh, 2010 – India	0	250 🖪		0.00	[0.00; 1.46]	8.7%
Taishete , 2016 – India	0	437 🖪		0.00	[0.00; 0.84]	8.9%
Random effect meta-analysis		1229 <		12.66	[1.80; 29.97]	47.1%
Heterogeneity: $I^2 = 97.8\%$ [96.8%; 98.6%]	$\tau^2 = 0.062$	3, <i>p</i> < 0.000	1			
Overall random effect meta-analysis		3665	>	5.38	[1.43; 11.26]	100.0%
Residual heterogeneity: $I^2 = 97.8\%$ [97.0%]	%; 98.4%], <i>p</i>	0.0001 0	20 40 60			



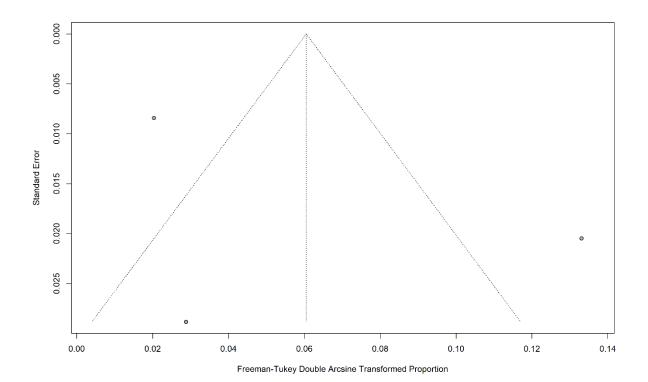


Supplementary Figure 6. Funnel plot for publication of global seroprevalence of Hepatitis B current infection (HBsAg) in healthcare workers

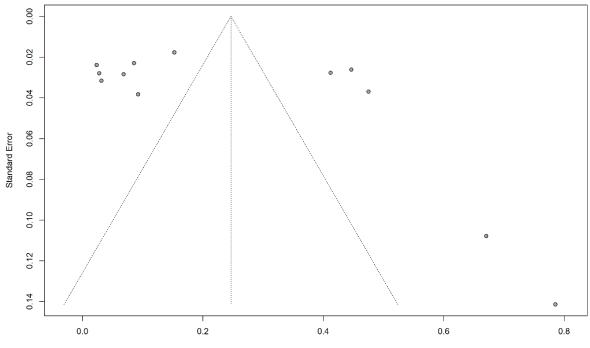


Freeman-Tukey Double Arcsine Transformed Proportion

Supplementary Figure 7. Funnel plot for publication of global seroprevalence of Hepatitis B current infection (HBeAg) in healthcare workers

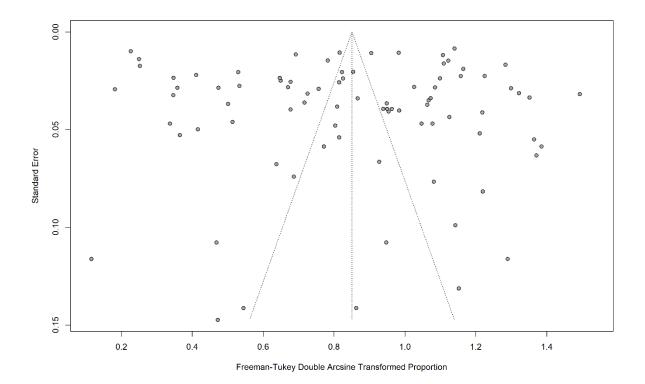


Supplementary Figure 8. Funnel plot for publication of global seroprevalence of Hepatitis B acute infection in healthcare workers



Freeman-Tukey Double Arcsine Transformed Proportion

Supplementary Figure 9. Funnel plot for publication of global seroprevalence of immunity (natural or due to vaccination) against HBV in healthcare workers



Supplementary Figure 10. Funnel plot for publication of global seroprevalence of immunity due to natural against HBV in healthcare workers

