

Supplementary Table 1 Risk of bias of included studies

Ref.	Selection bias (random sequence generation)	Selection bias (allocation concealment)	Performance bias	Detection bias	Attrition bias	Reporting bias	Other bias
Lee M, 2024 ¹	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Peters JC, 2024 ²	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk
Okuka N, 2024 ³	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Pereira V, 2024 ⁴	Low risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Salte OBK, 2024 ⁵	Low risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Moravcová K, 2024 ⁶	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Holmberg S, 2024 ⁷	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Low risk	Unclear risk
Eriksson JW, 2024 ⁸	Low risk	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Gonzalez-Gil AM, 2024 ⁹	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Keawtep P, 2024 ¹⁰	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk

Li S, 2024 ¹¹	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Lee DC, 2024 ¹²	Unclear risk	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Sandby K, 2024 ¹³	Low risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Heinonen S, 2023 ¹⁴	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk	Low risk
da Silva CSO, 2023 ¹⁵	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Fallah F, 2023 ¹⁶	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Lauw S, 2023 ¹⁷	Low risk	Unclear risk	High risk	Low risk	Low risk	Low risk	Low risk
Bamgboye M, 2023 ¹⁸	Low risk	Low risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Möller F, 2023 ¹⁹	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
García-Cordero J, 2023 ²⁰	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Zhu R, 2023 ²¹	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Low risk	Unclear risk
Hematinezhad Touli M, 2022 ²²	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk

Kosiborod MN, 2023 ³⁷	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Guo H, 2022 ³⁸	Low risk	Unclear risk	Unclear risk	Low risk	High risk	Low risk	Unclear risk
Yoshino M, 2022 ³⁹	Unclear risk	Unclear risk	Unclear risk	Low risk	unclear risk	Unclear risk	Unclear risk
Goralska J, 2022 ⁴⁰	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Zhaohu H, 2022 ⁴¹	Low risk	Unclear risk	Unclear risk	Low risk	High risk	Low risk	Low risk
Seyam MK, 2022 ⁴²	Low risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Osuna-Prieto FJ, 2022 ⁴³	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Lange UG, 2022 ⁴⁴	Low risk	Unclear risk	High risk	Low risk	Low risk	Unclear risk	Low risk
Mo SJ, 2022 ⁴⁵	Low risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Ataeinosrat A, 2022 ⁴⁶	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk
Salminen P, 2022 ⁴⁷	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Zhang X, 2022 ⁴⁸	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk

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Muñoz-Perez DM, 2021 ⁷³	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Vergara M, 2021 ⁷⁴	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Cai L, 2021 ⁷⁵	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Umphonsathien M, 2022 ⁷⁶	Low risk	Unclear risk	High risk	Low risk	Low risk	Low risk	Low risk
Paul S, 2021 ⁷⁷	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Unclear risk
Jamka M, 2021 ⁷⁸	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk
Trouwborst I, 2021 ⁷⁹	Low risk	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Siu PM, 2021 ⁸⁰	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Moholdt T, 2021 ⁸¹	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Leung GKW, 2021 ⁸²	Low risk	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Cooney C, 2021 ⁸³	Low risk	Low risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk

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Ratajczak M, 2019 ¹³²	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Fatahi S, 2019 ¹³³	Low risk	Unclear risk	High risk	Low risk	Low risk	Unclear risk	Unclear risk
Peradze N, 2019 ¹³⁴	unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Ghasemi E, 2019 ¹³⁵	Low risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Rakvaag E, 2019 ¹³⁶	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Cao L, 2019 ¹³⁷	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Rosqvist F, 2019 ¹³⁸	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Pavić E, 2019 ¹³⁹	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Farr OM, 2019 ¹⁴⁰	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk	Low risk
Kim CO, 2019 ¹⁴¹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Abbaspour N, 2019 ¹⁴²	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Lahelma M, 2019 ¹⁴³	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Haywood CJ, 2019 ¹⁴⁴	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear

							risk
Angelino D, 2019 ¹⁴⁵	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Apiñaniz A, 2019 ¹⁴⁶	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Tuccinardi D, 2019 ¹⁴⁷	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Hernández-Lepe MA, 2019 ¹⁴⁸	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Aller R, 2019 ¹⁴⁹	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk
Smith-Ryan AE, 2019 ¹⁵⁰	Low risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Asano M, 2019 ¹⁵¹	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Clayton ZS, 2019 ¹⁵²	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Bowen J, 2019 ¹⁵³	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Yari Z, 2022 ¹⁵⁴	Low risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Novin ZS, 2018 ¹⁵⁵	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk

Erickson ML, 2019 ¹⁵⁶	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Cho AR, 2019 ¹⁵⁷	Low risk	High risk	Low risk	Low risk	Low risk	Low risk	Low risk
Aller R, 2019 ¹⁵⁸	Low risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Choi HR, 2018 ¹⁵⁹	Low risk	Unclear risk	Unclear risk	Low risk	High risk	Low risk	Low risk
Subih HS, 2018 ¹⁶⁰	Unclear risk	Unclear risk	Unclear risk	Low risk	High risk	Unclear risk	Unclear risk
Headland ML, 2019 ¹⁶¹	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Gorostegi-Anduaga I , 2018 ¹⁶²	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Yousefi R, 2018 ¹⁶³	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Oh M, 2018 ¹⁶⁴	Low risk	Low risk	High risk	Low risk	Low risk	Unclear risk	Low risk
Varsamis P, 2019 ¹⁶⁵	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Loves S, 2018 ¹⁶⁶	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk

Camacho-Cardenosa A, 2018 ¹⁶⁷	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Kakutani R, 2018 ¹⁶⁸	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Oliveira-de-Lira L, 2018 ¹⁶⁹	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Allaire J, 2018 ¹⁷⁰	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Gram AS, 2018 ¹⁷¹	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Azevedo FR, 2018 ¹⁷²	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Fatahi S, 2018 ¹⁷³	Low risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Alcántara-Aragón V, 2018 ¹⁷⁴	Low risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Mundbjerg LH, 2018 ¹⁷⁵	Unclear risk	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
McKay DL, 2018 ¹⁷⁶	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Lee YJ, 2018 ¹⁷⁷	Low risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Padilla-Camberos E, 2018 ¹⁷⁸	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Ramos-Lopez O, 2018 ¹⁷⁹	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear	Unclear

						risk	risk
Mateo-Gallego R, 2018 ¹⁸⁰	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Shrivastava U, 2017 ¹⁸¹	Low risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Wagmacker DS, 2017 ¹⁸²	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Ando Y, 2017 ¹⁸³	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Rock CL, 2017 ¹⁸⁴	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Schiavon CA, 2018 ¹⁸⁵	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Blomquist C, 2018 ¹⁸⁶	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Low risk	Unclear risk
Lima RPA, 2017 ¹⁸⁷	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Ferreira TDS, 2017 ¹⁸⁸	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
O'Doherty AF, 2017 ¹⁸⁹	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Pedley CF, 2018 ¹⁹⁰	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Chung J, 2017 ¹⁹¹	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Fedewa MV, 2018 ¹⁹²	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear	Unclear

						risk	risk
Kleist B, 2017 ¹⁹³	Unclear risk	Unclear risk	Unclear risk	Low risk	High risk	Low risk	Unclear risk
Vella CA, 2017 ¹⁹⁴	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Gulati S, 2017 ¹⁹⁵	Unclear risk	Unclear risk	High risk	Low risk	Low risk	Low risk	Low risk
Rodriguez-Cristobal JJ , 2017 ¹⁹⁶	Low risk	Low risk	Unclear risk	Low risk	High risk	Low risk	Low risk
Vink RG, 2017 ¹⁹⁷	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Vors C, 2017 ¹⁹⁸	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Ribeiro C, 2017 ¹⁹⁹	Low risk	Unclear risk	High risk	Low risk	Low risk	Low risk	Low risk
Ard JD, 2017 ²⁰⁰	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk
Littlefield LA, 2017 ²⁰¹	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk
Houghton D, 2017 ²⁰²	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Trepanowski JF, 2017 ²⁰³	Low risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear	Low risk

						risk	
Fathi Y, 2017 ²⁰⁴	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Juliana N, 2017 ²⁰⁵	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Bonfante IL, 2017 ²⁰⁶	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Heggen E, 2017 ²⁰⁷	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk
Williams EJ, 2017 ²⁰⁸	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Peterli R, 2017 ²⁰⁹	Low risk	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Merra G, 2017 ²¹⁰	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Pal S, 2017 ²¹¹	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Bergeron N, 2016 ²¹²	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Wittmann K, 2016 ²¹³	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Veum VL, 2017 ²¹⁴	Low risk	Low risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Coelho R, 2017 ²¹⁵	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Kirwan JP, 2016 ²¹⁶	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk

Madjd A, 2016 ²¹⁷	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Duncan S, 2016 ²¹⁸	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Lee M, 2016 ²¹⁹	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Normandin E, 2017 ²²⁰	Low risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk	Low risk
de Luis D, 2016 ²²¹	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Madjd A, 2017 ²²²	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Mosikanon K, 2017 ²²³	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Nikseresht M, 2016 ²²⁴	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Raatz SK, 2016 ²²⁵	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Unclear risk
Ruggenenti P, 2017 ²²⁶	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Risstad H, 2016 ²²⁷	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Tomeleri CM, 2016 ²²⁸	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear	Unclear

						risk	risk
Cox AJ, 2017 ²²⁹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Camolas J, 2017 ²³⁰	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Valsesia A, 2016 ²³¹	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Weiss EP, 2016 ²³²	Low risk	Unclear risk	Unclear risk	Low risk	High risk	Low risk	Low risk
Byun MS, 2016 ²³³	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Mensinger JL, 2016 ²³⁴	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Arzola-Paniagua MA , 2016 ²³⁵	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Dempsey PC, 2016 ²³⁶	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Firouzjaei A, 2016 ²³⁷	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Dutour A, 2016 ²³⁸	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Tan S, 2016 ²³⁹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear	Low risk

						risk	
Ma W, 2016 ²⁴⁰	Unclear risk	Unclear risk	Unclear risk	Low risk	unclear risk	Unclear risk	Unclear risk
Rigamonti AE, 2017 ²⁴¹	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk	Low risk
Ji M, 2016 ²⁴²	Unclear risk	Unclear risk	High risk	Low risk	Low risk	Unclear risk	Low risk
Daubenmier J, 2016 ²⁴³	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Razny U, 2015 ²⁴⁴	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Magkos F, 2016 ²⁴⁵	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Hosseini B, 2016 ²⁴⁶	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Li J, 2016 ²⁴⁷	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Stroeve JH, 2016 ²⁴⁸	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk	Low risk
Le T, 2016 ²⁴⁹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Ohara T, 2016 ²⁵⁰	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk

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Romero-Moraleda B , 2015 ²⁶⁴	Unclear risk	Unclear risk	Unclear risk	Low risk	unclear risk	Unclear risk	Unclear risk
Rossi FE, 2016 ²⁶⁵	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Song MY, 2015 ²⁶⁶	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk	Low risk
Soto-Molina H, 2015 ²⁶⁷	Unclear risk	Unclear risk	Low risk	Low risk	High risk	Low risk	Low risk
Mahdavi R, 2015 ²⁶⁸	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Bruun JM, 2015 ²⁶⁹	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Gatterer H, 2015 ²⁷⁰	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Mateo-Gallego R, 2017 ²⁷¹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Xu M, 2015 ²⁷²	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk	Low risk
Cho IJ, 2016 ²⁷³	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Robert SA, 2015 ²⁷⁴	Unclear risk	Unclear risk	Unclear risk	Low risk	unclear risk	Unclear risk	Unclear risk

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Telles S, 2014 ²⁹⁵	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Larsen RN, 2014 ²⁹⁶	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Guo Y, 2014 ²⁹⁷	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Saslow LR, 2014 ²⁹⁸	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Tapsell LC, 2014 ²⁹⁹	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Lowndes J, 2014 ³⁰⁰	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Thorp AA, 2014 ³⁰¹	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Wong AT, 2014 ³⁰²	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Calbet JA, 2015 ³⁰³	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Mirzaei K, 2014 ³⁰⁴	Low risk	Unclear risk	Low risk	Low risk	unclear risk	Unclear risk	Low risk
Mellberg C, 2014 ³⁰⁵	Low risk	Unclear risk	Low risk	Low risk	High risk	Low risk	Low risk

Milsom VA, 2014 ³⁰⁶	Unclear risk	Unclear risk	Unclear risk	Low risk	unclear risk	Unclear risk	Unclear risk
Shirai K, 2013 ³⁰⁷	Unclear risk	Unclear risk	Unclear risk	Low risk	unclear risk	Unclear risk	Unclear risk
Rabinovitz HR, 2014 ³⁰⁸	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Mielgo-Ayuso J, 2014 ³⁰⁹	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Hollander P, 2013 ³¹⁰	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Alves NE, 2014 ³¹¹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Ruth MR, 2013 ³¹²	Low risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Tovar J, 2014 ³¹³	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Croymans DM, 2014 ³¹⁴	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Vetter ML, 2013 ³¹⁵	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk

Vinkers CD, 2014 ³¹⁶	Low risk	Unclear risk	Low risk	Low risk	High risk	Unclear risk	Unclear risk
Botero JP, 2014 ³¹⁷	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Hu X, 2013 ³¹⁸	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Low risk	Unclear risk
Kim SH, 2013 ³¹⁹	Unclear risk	Unclear risk	Low risk	Low risk	High risk	Low risk	Low risk
Bouchonville M, 2014 ³²⁰	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Romero Moraleda B , 2013 ³²¹	Low risk	Unclear risk	Low risk	Low risk	High risk	Unclear risk	Low risk
Ikramuddin S, 2013 ³²²	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Tey S, 2013 ³²³	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Nicklas JM, 2013 ³²⁴	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Stocks T, 2013 ³²⁵	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk	Low risk

Wright OR, 2013 ³²⁶	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Kim SH, 2014 ^{327,328}	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Munro IA, 2013 ³²⁸	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Astell KJ, 2013 ³²⁹	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Tonstad S, 2014 ³³⁰	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Venojärvi M, 2013 ³³¹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Lamprecht M, 2013 ³³²	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Tang M, 2013 ³³³	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk	Low risk
Reimer RA, 2013 ³³⁴	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Fuller NR, 2013 ³³⁵	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Jakubowicz D, 2013 ³³⁶	Low risk	Low risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk

Beebe N, 2013 ³³⁷	Low risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk	Low risk
Unick JL, 2013 ³³⁸	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Mohler ER, 2013 ³³⁹	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Bhutani S, 2013 ³⁴⁰	Unclear risk	Unclear risk	Low risk	Low risk	High risk	Unclear risk	Low risk
Webber KH, 2013 ³⁴¹	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk
Marinik EL, 2013 ³⁴²	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Zhu W, 2013 ³⁴³	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
García-Unciti M, 2012 ³⁴⁴	Unclear risk	Unclear risk	Low risk	Low risk	unclear risk	Unclear risk	Unclear risk
Vix M, 2013 ³⁴⁵	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Klempel MC, 2012 ³⁴⁶	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk

Venojärvi M, 2013 ³⁴⁷	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Ho SS, 2012 ³⁴⁸	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Fayh AP, 2013 ³⁴⁹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Sengupta K, 2012 ³⁵⁰	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Itariu BK, 2012 ³⁵¹	Low risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Whyte LJ, 2013 ³⁵²	Unclear risk	Unclear risk	Unclear risk	Low risk	unclear risk	Unclear risk	Unclear risk
Melanson KJ, 2012 ³⁵³	Unclear risk	Unclear risk	Unclear risk	Low risk	unclear risk	Unclear risk	Unclear risk
Ponce J, 2012 ³⁵⁴	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk
Klempel MC, 2013 ³⁵⁵	Low risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Zhang X, 2012 ³⁵⁶	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Ke B, 2012 ³⁵⁷	Low risk	Unclear risk	Low risk	Low risk	Low risk	Unclear	Low risk

						risk	
Abdi H, 2012 ³⁵⁸	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Foster GD, 2012 ³⁵⁹	Low risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Ebbeling CB, 2012 ³⁶⁰	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Kelly AS, 2012 ³⁶¹	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk	Low risk
Suliburska J, 2012 ³⁶²	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Alizadeh M, 2012 ³⁶³	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Bjermo H, 2012 ³⁶⁴	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Backhouse K, 2012 ³⁶⁵	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk	Low risk
Kim JW, 2012 ³⁶⁶	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Greene NP, 2012 ³⁶⁷	Unclear risk	Unclear risk	Low risk	Low risk	Unclear	unclear	Low risk

					risk	risk	
Boesten JE, 2012 ³⁶⁸	Low risk	Low risk	Low risk	Low risk	High risk	Low risk	Low risk
Chen SC, 2012 ³⁶⁹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Elisha B, 2012 ³⁷⁰	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Maersk M, 2012 ³⁷¹	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Low risk	Unclear risk
Ross AB, 2012 ³⁷²	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Andersson U, 2012 ³⁷³	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Familiari P, 2011 ³⁷⁴	unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Low risk	Low risk
Dillard TH, 2013 ³⁷⁵	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Lee JA, 2012 ³⁷⁶	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk	Low risk
Zunino SJ, 2012 ³⁷⁷	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk

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Dekkers JC, 2011 ³⁸⁸	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Farnetti S, 2011 ³⁸⁹	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Venn BJ, 2010 ³⁹⁰	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Chen SC, 2010 ³⁹¹	Low risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Miyashita M, 2010 ³⁹²	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Morenga LT, 2010 ³⁹³	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Pal S, 2011 ³⁹⁴	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Greenway FL, 2010 ³⁹⁵	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Torres MR, 2010 ³⁹⁶	Low risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Herrera MF, 2010 ³⁹⁷	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Palacios C, 2011 ³⁹⁸	Unclear risk	Unclear risk	Low risk	Low risk	Unclear	Unclear	Unclear

					risk	risk	risk
Ferré R, 2012 ³⁹⁹	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Pal S, 2010 ⁴⁰⁰	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Hermisdorff HH, 2011 ⁴⁰¹	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Plotnikoff RC, 2010 ⁴⁰²	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Papakonstantinou E, 2010 ⁴⁰³	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Wycherley TP, 2010 ⁴⁰⁴	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk
Jorde R, 2010 ⁴⁰⁵	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Hernandez TL, 2010 ⁴⁰⁶	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Low risk
Ibáñez J, 2010 ⁴⁰⁷	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Gripeteg L, 2010 ⁴⁰⁸	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk

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Sun L, 2023 ⁴³⁶	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Quaresma LS, 2023 ⁴³⁷	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Aldubayan MA, 2023 ⁴³⁸	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Cho E, 2023 ⁴³⁹	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Castaldo G, 2023 ⁴⁴⁰	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Low risk	Unclear risk
Ghalichi F, 2023 ⁴⁴¹	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Felipe LA, 2023 ⁴⁴²	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Ragland TJ, 2023 ⁴⁴³	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Cai H, 2023 ⁴⁴⁴	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Turner-McGrievy GM , 2023 ⁴⁴⁵	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Belany P, 2023 ⁴⁴⁶	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Gayathri R, 2023 ⁴⁴⁷	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk

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Roach LA, 2022 ⁴⁶²	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Kleinloog JPD, 2022 ⁴⁶³	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Pavão TP, 2022 ⁴⁶⁴	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Castela I, 2022 ⁴⁶⁵	Low risk	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Chekima K, 2022 ⁴⁶⁶	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Cipryan L, 2022 ⁴⁶⁷	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Ali Sangouni A, 2022 ⁴⁶⁸	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Timmons JF, 2023 ⁴⁶⁹	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Catley D, 2022 ⁴⁷⁰	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Mendelson M, 2022 ⁴⁷¹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Ruban A, 2022 ⁴⁷²	Low risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Li Y, 2022 ⁴⁷³	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Vodouhè M, 2022 ⁴⁷⁴	Unclear risk	Unclear risk	Low risk	Low risk	Unclear	Low risk	Low risk

					risk		
Dimitrov Ulian M, 2022 ⁴⁷⁵	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Low risk	Low risk
Viveros-Watty PE, 2022 ⁴⁷⁶	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Chair SY, 2022 ⁴⁷⁷	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Karandish M, 2022 ⁴⁷⁸	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Lim SL, 2022 ⁴⁷⁹	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Thomsen MN, 2022 ⁴⁸⁰	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Seeberg KA, 2022 ⁴⁸¹	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Ruegsegger GN, 2022 ⁴⁸²	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk	Low risk
Liu B, 2021 ⁴⁸³	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Cao JJ, 2021 ⁴⁸⁴	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Kang C, 2021 ⁴⁸⁵	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Che T, 2021 ⁴⁸⁶	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Miller L, 2021 ⁴⁸⁷	Unclear risk	Unclear risk	Low risk	Low risk	High risk	Low risk	Low risk

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Schroor MM, 2021 ⁵⁰⁰	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Bhoite R, 2021 ⁵⁰¹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
van der Merwe M, 2021 ⁵⁰²	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Walilko E, 2021 ⁵⁰³	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Ng SC, 2022 ⁵⁰⁴	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
do Rosario VA, 2021 ⁵⁰⁵	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk	Low risk
Amaro-Gahete FJ, 2021 ⁵⁰⁶	Low risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk	Low risk
Kim KW, 2021 ⁵⁰⁷	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Jiang W, 2021 ⁵⁰⁸	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
D'Amuri A, 2021 ⁵⁰⁹	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Yilmaz SK, 2021 ⁵¹⁰	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk

Barnard ND, 2022 ⁵¹¹	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk	Low risk
Netto Cândido TL, 2021 ⁵¹²	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Abbott K, 2020 ⁵¹³	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Kruschitz R, 2020 ⁵¹⁴	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk	Low risk
Kahleova H, 2020 ⁵¹⁵	Low risk	Low risk	Low risk	Low risk	High risk	Low risk	Low risk
Cheshmazar E, 2020 ⁵¹⁶	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Bove KB, 2020 ⁵¹⁷	Low risk	Low risk	Low risk	Low risk	High risk	Low risk	Low risk
de Ligt M, 2020 ⁵¹⁸	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk	Low risk
Bratlie M, 2021 ⁵¹⁹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Klomklorm A, 2020 ⁵²⁰	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk	Low risk
Li L, 2020 ⁵²¹	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Cienfuegos S, 2020 ⁵²²	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk

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Lin X, 2020 ⁵³⁸	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Lorkowski SW, 2020 ⁵³⁹	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk	Unclear risk
Tsintzas K, 2020 ⁵⁴⁰	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Dolati S, 2020 ⁵⁴¹	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Edinburgh RM, 2020 ⁵⁴²	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Asgary S, 2020 ⁵⁴³	Low risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Perissiou M, 2020 ⁵⁴⁴	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Kuo YC, 2020 ⁵⁴⁵	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk
Nishimura M, 2020 ⁵⁴⁶	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Gajewska D, 2019 ⁵⁴⁷	Low risk	Unclear risk	Unclear risk	Low risk	High risk	Unclear risk	Low risk
Karimi-Nazari E, 2019 ⁵⁴⁸	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Tanaka Y, 2020 ⁵⁴⁹	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Mollentze WF, 2019 ⁵⁵⁰	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk

Chiang TL, 2019 ⁵⁵¹	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Kraus WE, 2019 ⁵⁵²	Low risk	Low risk	Low risk	Low risk	High risk	Low risk	Low risk
Malik VS, 2019 ⁵⁵³	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Aghasi M, 2019 ⁵⁵⁴	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Hirsh SP, 2019 ⁵⁵⁵	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Byrne CS, 2019 ⁵⁵⁶	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Taylor PJ, 2019 ⁵⁵⁷	Low risk	High risk	Low risk	Low risk	Low risk	Low risk	Low risk
Nunes PRP, 2019 ⁵⁵⁸	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Ejtahed HS, 2019 ⁵⁵⁹	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Schroeder EC, 2019 ⁵⁶⁰	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Rynarzewski J, 2019 ⁵⁶¹	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk	Low risk
Otten J, 2019 ⁵⁶²	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Aliashrafi S, 2019 ⁵⁶³	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Ballin M, 2019 ⁵⁶⁴	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
de Souza RGM, 2018 ⁵⁶⁵	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk

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						risk	
Shlisky JD, 2015 ⁶¹⁶	Low risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Hu T, 2015 ⁶¹⁷	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Low risk	Low risk
de Barros F, 2015 ⁶¹⁸	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Austel A, 2015 ⁶¹⁹	Low risk	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Ding SA, 2015 ⁶²⁰	Low risk	Unclear risk	Unclear risk	Low risk	High risk	Low risk	Low risk
McEvoy CT, 2015 ⁶²¹	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Low risk	Unclear risk
Hosseinpour-Niazi S , 2015 ⁶²²	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Mirtaheri E, 2015 ⁶²³	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Stonehouse W, 2015 ⁶²⁴	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Nowotny B, 2015 ⁶²⁵	Low risk	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Ivey KL, 2015 ⁶²⁶	Low risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk	Low risk

Taghizadeh M, 2015 ⁶²⁷	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Nickols-Richardson SM, 2014 ⁶²⁸	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Zare R, 2014 ⁶²⁹	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Sousa N, 2014 ⁶³⁰	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Hernández-Cordero S, 2014 ⁶³¹	Low risk	Unclear risk	High risk	Low risk	High risk	Low risk	Low risk
Schwander F, 2014 ⁶³²	Low risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Low risk	Low risk
Halperin F, 2014 ⁶³³	Low risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Choi MS, 2014 ⁶³⁴	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk	Low risk
Bozzetto L, 2014 ⁶³⁵	Low risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk	Low risk
Lin PH, 2014 ⁶³⁶	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Geliebter A, 2014 ⁶³⁷	Low risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk	Low risk

[illegible]

Thies F, 2012 ⁶⁵⁰	Unclear risk	Unclear risk	Low risk	Low risk	High risk	Low risk	Low risk
Rizkalla SW, 2012 ⁶⁵¹	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Low risk	Low risk
Tovar J, 2012 ⁶⁵²	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Taniguchi-Fukatsu A , 2012 ⁶⁵³	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk	Low risk
Krebs JD, 2012 ⁶⁵⁴	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Gargari BP, 2011 ⁶⁵⁵	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk	Low risk
Fidler MC, 2011 ⁶⁵⁶	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Khoo J, 2011 ⁶⁵⁷	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Derosa G, 2011 ⁶⁵⁸	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Søvik TT, 2011 ⁶⁵⁹	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk

[illegible]

Frank I, 2011 ⁶⁶⁹	Unclear risk	Unclear risk	High risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Llaneza P, 2011 ⁶⁷⁰	Low risk	Low risk	Low risk	Low risk	Unclear risk	Unclear risk	Low risk
DeFina LF, 2011 ⁶⁷¹	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Sieverdes JC, 2011 ⁶⁷²	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Raben A, 2011 ⁶⁷³	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Bladbjerg EM, 2010 ⁶⁷⁴	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk	Low risk
Li S, 2010 ⁶⁷⁵	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Ilanne-Parikka P, 2010 ⁶⁷⁶	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Low risk	Low risk
Beck EJ, 2010 ⁶⁷⁷	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Hodgson JM, 2010 ⁶⁷⁸	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Michishita T, 2010 ⁶⁷⁹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear	Low risk

						risk	
Blumenthal JA, 2010 ⁶⁸⁰	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Larson-Meyer DE, 2010 ⁶⁸¹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Elhayany A, 2010 ⁶⁸²	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Sluijs I, 2010 ⁶⁸³	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Rizvi ZA, 2024 ⁶⁸⁴	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Horváth J, 2024 ⁶⁸⁵	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Nemati M, 2024 ⁶⁸⁶	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Low risk	Low risk
AlMalki SM, 2024 ⁶⁸⁷	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Suder A, 2024 ⁶⁸⁸	Unclear risk	Low risk	High risk	Low risk	Unclear risk	Low risk	Low risk
Amiri P, 2024 ⁶⁸⁹	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Rodrigo-Carbó C, 2024 ⁶⁹⁰	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Stockton MB, 2024 ⁶⁹¹	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk

Wang Y, 2024 ⁶⁹²	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Ostadrahimi A, 2024 ⁶⁹³	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Turner-McGrievy GM , 2024 ⁶⁹⁴	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Delfan M, 2024 ⁶⁹⁵	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Pammer A, 2024 ⁶⁹⁶	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Low risk	Low risk
Duan Y, 2024 ⁶⁹⁷	Low risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Rolland C, 2009 ⁶⁹⁸	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Foster GD, 2009 ⁶⁹⁹	Low risk	Low risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Low risk
Tsai Ch H, 2009 ⁷⁰⁰	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Fontbonne A, 2009 ⁷⁰¹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk

Shikany JM, 2009 ⁷⁰²	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Frisch S, 2009 ⁷⁰³	Low risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Nieman DC, 2009 ⁷⁰⁴	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Lin WY, 2009 ⁷⁰⁵	Low risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Low risk
Arsenault BJ, 2009 ⁷⁰⁶	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Brochu M, 2009 ⁷⁰⁷	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Aasheim ET, 2009 ⁷⁰⁸	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Assunção ML, 2009 ⁷⁰⁹	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk	Low risk
Shah K, 2009 ⁷¹⁰	Low risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Davis NJ, 2009 ⁷¹¹	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk

Sacks FM, 2009 ⁷¹²	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Digenio AG, 2009 ⁷¹³	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk	Low risk
Kirk E, 2009 ⁷¹⁴	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Hursel R, 2009 ⁷¹⁵	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Andersson K, 2009 ⁷¹⁶	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Layman DK, 2009 ⁷¹⁷	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Kim JY, 2008 ⁷¹⁸	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk
Lasker DA, 2008 ⁷¹⁹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
St-Onge MP, 2008 ⁷²⁰	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Hibi M, 2008 ⁷²¹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk

Treyzon L, 2008 ⁷²²	Low risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Volpe SL, 2008 ⁷²³	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Morgan LM, 2009 ⁷²⁴	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Lindqvist HM, 2009 ⁷²⁵	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Shai I, 2008 ⁷²⁶	Low risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Nakou E, 2008 ⁷²⁷	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Pierce GL, 2008 ⁷²⁸	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk	Low risk
Miyashita M, 2008 ⁷²⁹	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Arciero PJ, 2008 ⁷³⁰	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk

Wycherley TP, 2008 ⁷³¹	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Lockwood CM, 2008 ⁷³²	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Larson-Meyer DE, 2008 ⁷³³	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Schjerve IE, 2008 ⁷³⁴	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk	Low risk
König D, 2008 ⁷³⁵	Low risk	Low risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Borges RL, 2007 ⁷³⁶	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Mutungi G, 2008 ⁷³⁷	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Jensen L, 2008 ⁷³⁸	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Salas-Salvadó J, 2008 ⁷³⁹	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Burton FL, 2008 ⁷⁴⁰	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk

[illegible]

Steck SE, 2007 ⁷⁵¹	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Rock CL, 2007 ⁷⁵²	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Brunerova L, 2007 ⁷⁵³	Unclear risk	Unclear risk	High risk	Low risk	Unclear risk	Unclear risk	Low risk
Maki KC, 2007 ⁷⁵⁴	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Gardner CD, 2007 ⁷⁵⁵	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Lindqvist H, 2007 ⁷⁵⁶	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Aubertin-Leheudre M , 2007 ⁷⁵⁷	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Major GC, 2007 ⁷⁵⁸	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Vincent HK, 2006 ⁷⁵⁹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Bougoulia M, 2006 ⁷⁶⁰	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear	Unclear	Unclear

					risk	risk	risk
Wood RJ, 2007 ⁷⁶¹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Burke LE, 2006 ⁷⁶²	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Vincent HK, 2006 ⁷⁶³	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Low risk
McLaughlin T, 2006 ⁷⁶⁴	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Anderson JW, 2006 ⁷⁶⁵	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Fenkci S, 2006 ⁷⁶⁶	Unclear risk	unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Kuo CS, 2006 ⁷⁶⁷	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Nestel P, 2007 ⁷⁶⁸	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Satoh N, 2006 ⁷⁶⁹	Unclear risk	Unclear risk	Low risk	Low risk	Unclear	Unclear	Low risk

					risk	risk	
Turker I, 2006 ⁷⁷⁰	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk
Ahn CW, 2006 ⁷⁷¹	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk	Low risk
Hackman RM, 2006 ⁷⁷²	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Krebs JD, 2006 ⁷⁷³	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Wood RJ, 2006 ⁷⁷⁴	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk	Low risk
Löfgren P, 2005 ⁷⁷⁵	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Petersen M, 2006 ⁷⁷⁶	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Wang TF, 2005 ⁷⁷⁷	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk	Low risk
Robitaille J, 2005 ⁷⁷⁸	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear	Low risk

						risk	
Noakes M, 2005 ⁷⁷⁹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Poston WS, 2005 ⁷⁸⁰	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Ebbeling CB, 2005 ⁷⁸¹	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Frank LL, 2005 ⁷⁸²	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Berne C, 2005 ⁷⁸³	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Gaullier JM, 2005 ⁷⁸⁴	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Unclear risk
Zemel MB, 2005 ⁷⁸⁵	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Patalay M, 2005 ⁷⁸⁶	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Unclear risk
Pieterse Z, 2005 ⁷⁸⁷	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear	Low risk

						risk	
Derosa G, 2005 ⁷⁸⁸	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Maeda H, 2005 ⁷⁸⁹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Pereira MA, 2004 ⁷⁹⁰	Low risk	Low risk	Low risk	Low risk	High risk	Unclear risk	Low risk
Aude YW, 2004 ⁷⁹¹	Low risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Brinkworth GD, 2004 ⁷⁹²	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Melanson KJ, 2004 ⁷⁹³	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Yesilbursa D, 2005 ⁷⁹⁴	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk
Seshadri P, 2004 ⁷⁹⁵	Low risk	Low risk	High risk	Low risk	Unclear risk	Low risk	Low risk
Miyashita Y, 2004 ⁷⁹⁶	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear	Unclear

						risk	risk
Flechtner-Mors M, 2004 ⁷⁹⁷	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Mhurchu CN, 2004 ⁷⁹⁸	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Esposito K, 2004 ⁷⁹⁹	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Carels RA, 2004 ⁸⁰⁰	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Stern L, 2004 ⁸⁰¹	Low risk	Low risk	Unclear risk	Low risk	Low risk	Low risk	Low risk
Brinkworth GD, 2004 ⁸⁰²	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Albert SG, 2004 ⁸⁰³	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Unclear risk
Rachmani R, 2004 ⁸⁰⁴	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Poston WS, 2003 ⁸⁰⁵	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Bloch KV, 2003 ⁸⁰⁶	Low risk	Low risk	Low risk	Low risk	High risk	Unclear	Low risk

						risk	
Lovejoy JC, 2003 ⁸⁰⁷	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Ash S, 2003 ⁸⁰⁸	Low risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Foster GD, 2003 ⁸⁰⁹	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Melanson K, 2003 ⁸¹⁰	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk
Allison DB, 2003 ⁸¹¹	Low risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Esposito K, 2003 ⁸¹²	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Lantz H, 2003 ⁸¹³	Low risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
James AP, 2003 ⁸¹⁴	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Hirose K, 2002 ⁸¹⁵	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk

Sharman MJ, 2024 ⁸¹⁶	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Bakris G, 2002 ⁸¹⁷	Unclear risk	Unclear risk	Unclear risk	Low risk	High risk	Unclear risk	Low risk
Hanefeld M, 2002 ⁸¹⁸	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Dunstan DW, 2002 ⁸¹⁹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Larsen TM, 2002 ⁸²⁰	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Nieman DC, 2002 ⁸²¹	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Anderson JW, 2002 ⁸²²	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Miles JM, 2002 ⁸²³	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Kelley DE, 2002 ⁸²⁴	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk

Heilbronn LK, 2002 ⁸²⁵	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Janssen I, 2002 ⁸²⁶	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Yip I, 2001 ⁸²⁷	Low risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Gokcel A, 2001 ⁸²⁸	Unclear risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Volpe SL, 2001 ⁸²⁹	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Dumont M, 2001 ⁸³⁰	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Boozer CN, 2001 ⁸³¹	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Birketvedt GS, 2000 ⁸³²	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Richelsen B, 2000 ⁸³³	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk

Halimi S, 2000 ⁸³⁴	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Wadden TA, 2001 ⁸³⁵	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Fujioka K, 2000 ⁸³⁶	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Ditschuneit HH, 2002 ⁸³⁷	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Fogelholm M, 2000 ⁸³⁸	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Donnelly JE, 2000 ⁸³⁹	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Low risk
Golay A, 2000 ⁸⁴⁰	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Mori TA, 1999 ⁸⁴¹	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Vidgren HM, 1999 ⁸⁴²	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk	Low risk
Roger P, 1999 ⁸⁴³	Unclear risk	Unclear risk	Low risk	Low risk	Unclear	Unclear	Unclear

					risk	risk	risk
Pittler MH, 1999 ⁸⁴⁴	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Ditschuneit HH, 1999 ⁸⁴⁵	Low risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Andersen RE, 1999 ⁸⁴⁶	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Davidson MH, 1999 ⁸⁴⁷	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Charles MA, 1998 ⁸⁴⁸	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Riddle MC, 1998 ⁸⁴⁹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Marckmann P, 1998 ⁸⁵⁰	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Sjöström L, 1998 ⁸⁵¹	Low risk	Low risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Agurs-Collins TD, 1997 ⁸⁵²	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear	Low risk

						risk	
Kraemer WJ, 1997 ⁸⁵³	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Rössner S, 1997 ⁸⁵⁴	Unclear risk	Unclear risk	High risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Pontiroli AE, 1996 ⁸⁵⁵	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Golay A, 1996 ⁸⁵⁶	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk
Pascale RW, 1995 ⁸⁵⁷	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
DeFronzo RA, 1995 ⁸⁵⁸	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk
O'Kane M, 1994 ⁸⁵⁹	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Giugliano D, 1993 ⁸⁶⁰	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Unclear risk	Low risk
Puddey IB, 1992 ⁸⁶¹	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear	Low risk

						risk	
Wolever TM, 1992 ⁸⁶²	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Golay A, 1992 ⁸⁶³	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk
Jalkanen L, 1991 ⁸⁶⁴	Unclear risk	Unclear risk	Unclear risk	Low risk	Unclear risk	Unclear risk	Unclear risk
Nieman DC, 1990 ⁸⁶⁵	Unclear risk	Unclear risk	Unclear risk	Low risk	Low risk	Unclear risk	Low risk
Lalor BC, 1990 ⁸⁶⁶	Unclear risk	Unclear risk	Low risk	Low risk	Low risk	Unclear risk	Low risk

Supplementary Table 2 Baseline characteristics of included trials

Ref.	Country	Treatment	No. of patients	Mean Age (years)	Female (%)	Mean Baseline BMI (kg/m²)	All-cause mortality	Cardiovascular death	Non-fatal myocardial infarction	Non-fatal stroke
Lee M, 2024 ¹	korea	others	93	53.5	100	26.4	/	/	/	/
Peters JC, 2024 ²	USA	others	20	35.8	70	30.9	/	/	/	/
Okuka N, 2024 ³	Serbia	others	48	39.19	100		/	/	/	/
Pereira V, 2024 ⁴	Portugal	diet	112	45	72.3	34	/	/	/	/
Salte OBK, 2024 ⁵	Norway	surgery	60	48	73	54.9	/	/	/	/
Moravcová K, 2024 ⁶	Czech Republic	others	100	43.3	71	43.3	/	/	/	/
Holmberg S, 2024 ⁷	Sweden	diet	176	56.5	79.5	32.8	/	/	/	/
Eriksson JW, 2024 ⁸	Sweden	surgery + diet	24	42	91.67	39.8	/	/	/	/
Gonzalez-Gil AM , 2024 ⁹	USA	exercise + medicine	83	72.4	0	37.0	/	/	/	/

Keawtep P, 2024 ¹⁰	Thailand	diet + exercise	92	52.84	100	29.06	/	/	/	/
Li S, 2024 ¹¹	China	exercise	54	36.82	55.56	29.95	/	/	/	/
Lee DC, 2024 ¹²	USA	exercise	406	50	53	31.2	/	/	/	/
Sandby K, 2024 ¹³	Denmark	diet	80	58	0	32.4	/	/	/	/
Heinonen S, 2023 ¹⁴	Finland	surgery	119	46.8	70.59	44.2	/	/	/	/
da Silva CSO, 2023 ¹⁵	Brazil	diet	24	38.29	100	29.08	/	/	/	/
Fallah F, 2023 ¹⁶	Iran	medicine	45	38.2	100	32.9	/	/	/	/
Lauw S, 2023 ¹⁷	China	others	55	42.4	74.55	28.8	/	/	/	/
Bamgboye M, 2023 ¹⁸	USA	others	353	42.69	67	32.32	/	/	/	/
Möller F, 2023 ¹⁹	Sweden	surgery	34	39.1	46.81	54.5	/	/	/	/
García-Cordero J , 2023 ²⁰	Spain	diet	29	45.2	41.38	30.1	/	/	/	/
Zhu R, 2023 ²¹	Denmark	diet + exercise	2165	55	67.9	33.9	/	/	/	/
Hematinezhad Touli M, 2022 ²²	Iran	others	40		0	29.1	/	/	/	/

Nora CL, 2023 ²³	USA	others	29	27.6	48.28	30.6	/	/	/	/
Sun J, 2023 ²⁴	China	diet	298	34	69.21	30.3	/	/	/	/
Taha MM, 2023 ²⁵	Egypt	exercise	53	48.64	100	34.4	/	/	/	/
Perin L, 2023 ²⁶	Brasil	diet	85	35.9	89.41	32.7	/	/	/	/
Zhang N, 2023 ²⁷	China	diet + exercise	746	70.1	53.9	27.67	/	/	/	/
Elsayed MM, 2023 ²⁸	Egypt	others	76	67.83	50	34.55	/	/	/	/
Cabrera-Rode E, 2023 ²⁹	Cuba	others	160	43	86.88	33.1	/	/	/	/
Maaloul R, 2023 ³⁰	Tunisia	diet + exercise	20	31.8	0	33.1	/	/	/	/
Muñoz-Pérez DM , 2023 ³¹	Colombia	diet	44	50.8	77.27	35.59	/	/	/	/
Saeidi A, 2023 ³²	Iran	others	68	27.6	0	33.6	/	/	/	/
Quist JS, 2023 ³³	Denmark	exercise	90	36	52	29.6	/	/	/	/
Delgado-Floody P , 2022 ³⁴	Chile	exercise	18	41.3	100	44.2	/	/	/	/
Ghorbani Y, 2023 ³⁵	Canada	others	28	46.4	78.57	44	/	/	/	/

Garvey WT, 2022 ³⁶	USA	medicine	304	47.3	77.63	38.5	0.70%	/	/	/
Kosiborod MN, 2023 ³⁷	USA	medicine	2764	46.22	75	38.2	/	/	/	/
Guo H, 2022 ³⁸	China	diet	69	39.2	72.5	29.3	/	/	/	/
Yoshino M, 2022 ³⁹	USA	lifestyle	18	51.8	94.44	37.3	/	/	/	/
Goralska J, 2022 ⁴⁰	Poland	others	62	47.5	24.35	33.6	/	/	/	/
Zhaohu H, 2022 ⁴¹	China	medicine	309	51.8	38.51	29.9	/	/	/	/
Seyam MK, 2022 ⁴²	Arabia	diet + exercise	70	30.3	0	35.2	/	/	/	/
Osuna-Prieto FJ, 2022 ⁴³	Spain	exercise	24	40.2	0	31.6	/	/	/	/
Lange UG, 2022 ⁴⁴	Germany	diet	69	46.7	68.12	47.5	/	/	/	/
Mo SJ, 2022 ⁴⁵	Korea	others	59	37.49	22.03	26.84	/	/	/	/
Ataeinosrat A, 2022 ⁴⁶	Iran	exercise	44	27.5	0	35.7	/	/	/	/
Salminen P, 2022 ⁴⁷	Finland	surgery	240	48.5	69.58	45.9	/	/	/	/
Zhang X, 2022 ⁴⁸	USA	others	93	42	58.06	32.6	/	/	/	/
Senkus KE, 2022 ⁴⁹	USA	diet + exercise	163	70.2	62	33.6	/	/	/	/
Haji-Ghazi Tehrani L,	Iran	diet	48	32.1	100	33.3	/	/	/	/

2022 ⁵⁰										
Murphy R, 2022 ⁵¹	New Zealand	surgery	103	46	51.75	42.8	/	/	/	/
Lockard B, 2022 ⁵²	USA	diet	51	34.5	100	34.0	/	/	/	/
de Luis D, 2022 ⁵³	Spain	diet	319	47.2	74.7	37.9	/	/	/	/
Ilich JZ, 2022 ⁵⁴	USA	others	97	55.8	100	31	/	/	/	/
Ruggenenti P, 2022 ⁵⁵	Italy	diet	103	63.9	21.4	32.2	/	3.40%	/	3.40%
Sohn M, 2022 ⁵⁶	korea	others	81	46.7	60.49	27.2	/	/	/	/
Li S, 2022 ⁵⁷	China	diet	53	36.8	0	29.43	/	/	/	/
Lugones-Sánchez C , 2022 ⁵⁸	Spain	diet + exercise	650	48.3	68.46	33	/	/	/	/
Kim MJ, 2022 ⁵⁹	korea	diet	104	38.7	100	25.5	/	/	/	/
Sánchez E, 2021 ⁶⁰	Spain	diet	30	40.4	73.33	37.9	/	/	/	/
Eskandaros MS, 2022 ⁶¹	Egypt	surgery	121	46.87	65.29	45.84	/	/	/	/
Mateos R, 2022 ⁶²	Spain	others	60	38.3	28.33	30.2	/	/	/	/
de Oliveira Fialho CG, 2022 ⁶³	Brazil	others	24	33.1	100	34.3	/	/	/	/

Grangeiro É D, 2021 ⁶⁴	Brazil	diet	40	29.05	100	30.33	/	/	/	/
Schiavo L, 2022 ⁶⁵	Italy	diet	70	42	37.14	48.8	/	/	/	/
Haidari F, 2021 ⁶⁶	Iran	diet	63	35.3	100	34.8	/	/	/	/
Kafyra M, 2021 ⁶⁷	Greece	diet	202	47	70.29	31.34	/	/	/	/
Lee YK, 2021 ⁶⁸	korea	exercise	24	56.8	100	25.7	/	/	/	/
de Sousa ART, 2021 ⁶⁹	Brazil	surgery	61	42.39	100	47.09	/	/	/	/
Rajaie H, 2021 ⁷⁰	Iran	others	81	38.97	100		/	/	/	/
Félix-Soriano E, 2021 ⁷¹	Spain	exercise	71	58.51	100	30.62	/	/	/	/
Astbury NM, 2021 ⁷²	UK	diet	179	50.8	55	36.9	/	/	/	/
Muñoz-Perez DM , 2021 ⁷³	Colombia	diet	44	50.8	77.27	35.6	/	/	/	/
Vergara M, 2021 ⁷⁴	USA	diet	208	40	60		/	/	/	/
Cai L, 2021 ⁷⁵	China	diet + exercise	44	24.82	34.09	27.59	/	/	/	/
Umphonsathien M , 2022 ⁷⁶	Thailand	diet	40	49.6	72.5	30.1	/	/	/	/
Paul S, 2021 ⁷⁷	Australia	others	10	50	0	32.1	/	/	/	/

Jamka M, 2021 ⁷⁸	Poland	exercise	101	55	100	35.92	/	/	/	/
Trouwborst I, 2021 ⁷⁹	The Netherlands	diet	782	41.5	64.7	34.4	/	/	/	/
Siu PM, 2021 ⁸⁰	Hong Kong	exercise	543	61.9	77.9	25.6	/	/	/	/
Moholdt T, 2021 ⁸¹	Australia	exercise	24	35.67	0	30.87	/	/	/	/
Leung GKW, 2021 ⁸²	Australia	diet	19	41	68.42	30.7	/	/	/	/
Cooney C, 2021 ⁸³	Ireland	diet	54	57.5	53.7	30.7	/	/	/	/
Azizi S, 2021 ⁸⁴	Iran	others	45	48.69	35.56	29.03	/	/	/	/
Biteli P, 2021 ⁸⁵	Brazil	exercise	70	60.6	100		/	/	/	/
Naing S, 2020 ⁸⁶	USA	medicine	18	53.5	50	36.47	/	/	/	/
de Melo CM, 2021 ⁸⁷	Brazil	diet	37	40.7	0	34.6	/	/	/	/
Han Y, 2022 ⁸⁸	korea	others	383	48.9	57.96	27.5	/	/	/	/
de Luis D, 2021 ⁸⁹	Spain	diet	269	50.2	74	37.3	/	/	/	/
Noer ER, 2020 ⁹⁰	Indonesia	diet	43	19.2	90.7	30	/	/	/	/
Höchsmann C, 2021 ⁹¹	USA	lifestyle	803	49.4	84.4	37.2	/	/	/	/
Lopes AL, 2021 ⁹²	Brazil	diet	+ 12	25.6	0	32.34	/	/	/	/

exercise										
Wheeler MJ, 2020 ⁹³	Australia	exercise	67	67	52.24	31.2	/	/	/	/
Hajizadeh-Sharafabad F, 2021 ⁹⁴	Iran	others	45	53.82	60	34.11	/	/	/	/
Zhang T, 2020 ⁹⁵	China	others	24	39.9	0	28.1	/	/	/	/
Wongpipit W, 2021 ⁹⁶	China	others	18	22	0	30	/	/	/	/
Rondanelli M, 2020 ⁹⁷	Italy	others	54	51.5	48.15	29.34	/	/	/	/
Glaysheer MA, 2021 ⁹⁸	UK	others	140	52	45	36.2	/	/	/	/
Fechner E, 2020 ⁹⁹	The Netherlands	diet	40	61.4	52.5	29.4	/	/	/	/
Yousefi R, 2021 ¹⁰⁰	Iran	others	40	34.23	82.5	31.84	/	/	/	/
Park W, 2020 ¹⁰¹	korea	exercise	20	68.8	0	26.1	/	/	/	/
Brennan AM, 2020 ¹⁰²	USA	exercise	61	68.6	63.93	36.3	/	/	/	/
Jung K, 2020 ¹⁰³	korea	exercise	32	47.5	100	25.9	/	/	/	/
Heiston EM, 2021 ¹⁰⁴	USA	diet + exercise	25	47	100	37.6	/	/	/	/
Sun J, 2020 ¹⁰⁵	China	exercise	300	21.71	0	30.85	/	/	/	/

Haidari F, 2020 ¹⁰⁶	Iran	diet	38	36.05	100	33.23	/	/	/	/
Haidari F, 2020 ¹⁰⁷	Iran	others	60	31.61	100	33.45	/	/	/	/
Vogel C, 2020 ¹⁰⁸	Brazil	others	29	37.21	0	32.59	/	/	/	/
Michalczyk MM , 2020 ¹⁰⁹	Poland	diet	91	42	100	32.86	/	/	/	/
Moszak M, 2020 ¹¹⁰	Poland	others	81	49.1	62.96	39.6	/	/	/	/
Batista-Jorge GC , 2020 ¹¹¹	Brazil	others	22		0	35.69	/	/	/	/
Colleluori G, 2020 ¹¹²	USA	others	23	51.7	0	40.6	/	/	/	/
Poon ET, 2020 ¹¹³	Hong Kong	exercise	24	48.1	0	25.9	/	/	/	/
Basciani S, 2020 ¹¹⁴	Italy	diet	48	56.2	60.42	35.9	/	/	/	/
Psota TL, 2020 ¹¹⁵	USA	lifestyle	101	38.9	100	30.8	/	/	/	/
Ghanim H, 2020 ¹¹⁶	USA	medicine	64	46	62.5	31.7	/	/	/	/
Santos A, 2020 ¹¹⁷	Brazil	diet	149	39.63	85.23	45.77	/	/	/	/
Bakker N, 2020 ¹¹⁸	The Netherlands	others	56	46.7	100	42	/	/	/	/
Kim J, 2020 ¹¹⁹	korea	exercise	25	71.04	100		/	/	/	/

López-Gómez JJ , 2020 ¹²⁰	Spain	diet	112	61.02	72.3	39.56	/	/	/	/
Sadowska-Krępa E , 2020 ¹²¹	Poland	diet + exercise	39	58.7	0	31.6	/	/	/	/
Hannon BA, 2020 ¹²²	USA	others	115	35.7	63	33.1	/	/	/	/
Michael DR, 2020 ¹²³	UK	others	220	45.91	60.45	29.06	/	/	/	/
Kuszewski JC, 2020 ¹²⁴	Australia	others	152	65.6	54.61	30.8	/	/	/	/
Meslier V, 2020 ¹²⁵	Italy	diet	82	43	52.44	31.1	/	/	/	/
Razmpoosh E, 2020 ¹²⁶	Iran	diet	65	36.5	100	31.5	/	/	/	/
Headland ML, 2020 ¹²⁷	Australia	diet	109	54.9	94	33	/	/	/	/
Bittel AJ, 2020 ¹²⁸	USA	exercise	10	50	0	33	/	/	/	/
Hadi A, 2019 ¹²⁹	Iran	others	59	35.55	33.9	30.87	/	/	/	/
Dellis D, 2020 ¹³⁰	Greece	diet	70	50	52.86	33.67	/	/	/	/
Porter Starr KN , 2019 ¹³¹	USA	diet	80	60	90	37.3	/	/	/	/
Ratajczak M, 2019 ¹³²	Poland	exercise	39	50	100	35.5	/	/	/	/
Fatahi S, 2019 ¹³³	Iran	others	99	53.5	100	33.29	/	/	/	/

Peradze N, 2019 ¹³⁴	USA	medicine	20		0	35.3	/	/	/	/
Ghasemi E, 2019 ¹³⁵	Iran	exercise	30	22.37	100	27.5	/	/	/	/
Rakvaag E, 2019 ¹³⁶	Denmark	diet	65	64.5	52.31	29.36	/	/	/	/
Cao L,, 2019 ¹³⁷	China	exercise	28	64.2	100	27.1	/	/	/	/
Rosqvist F,, 2019 ¹³⁸	Sweden	others	60	42	38.33	28	/	/	/	/
Pavić E, 2019 ¹³⁹	Croatia	diet	124	47.6	74.19	41.6	/	/	/	/
Farr OM, 2019 ¹⁴⁰	USA	medicine	40	55	0	35.76	/	/	/	/
Kim CO, 2019 ¹⁴¹	korea	others	78	35.5	60.26	25.81	/	/	/	/
Abbaspour N, 2019 ¹⁴²	USA	others	48	29.8	39.58	31.3	/	/	/	/
Lahelma M, 2019 ¹⁴³	Finland	exercise	53		47.17	28	/	/	/	/
Haywood CJ, 2019 ¹⁴⁴	Australia	diet	117	70.2	61.54	40.1	/	/	/	/
Angelino D, 2019 ¹⁴⁵	Italy	others	41	53	60.98	30.9	/	/	/	/
Apiñaniz A, 2019 ¹⁴⁶	Spain	others	110	38.5	71.82	32.7	/	/	/	/
Tuccinardi D, 2019 ¹⁴⁷	USA	others	10	50.7	40	36.8	/	/	/	/
Hernández-Lepe MA, 2019 ¹⁴⁸	Mexico	others	52	26	0	30.2	/	/	/	/
Aller R, 2019 ¹⁴⁹	Spain	diet	269	49.8	74.1	34.9	/	/	/	/

Smith-Ryan AE , 2019 ¹⁵⁰	USA	diet	42	35.3	50	32.8	/	/	/	/
Asano M, 2019 ¹⁵¹	Japan	diet	60	46.3	48.33	26.4	/	/	/	/
Clayton ZS, 2019 ¹⁵²	USA	others	45	37.4	61.22	33.0	/	/	/	/
Bowen J, 2019 ¹⁵³	Australia	others	76	60.7	40.79	33.8	/	/	/	/
Yari Z, 2022 ¹⁵⁴	Iran	others	46	45	50	30.72	/	/	/	/
Novin ZS, 2018 ¹⁵⁵	Iran	others	42	34.19	100	31.05	/	/	/	/
Erickson ML, 2019 ¹⁵⁶	USA	lifestyle	16	66.1	68.75	35.9	/	/	/	/
Cho AR, 2019 ¹⁵⁷	korea	diet + exercise	31	36.7	48.39	27.3	/	/	/	/
Aller R, 2019 ¹⁵⁸	Spain	diet	362	49.1	72.15	36.4	/	/	/	/
Choi HR, 2018 ¹⁵⁹	korea	diet	37	26.7	35.14	29.2	/	/	/	/
Subih HS, 2018 ¹⁶⁰	Jordan	others	45		100	38.4	/	/	/	/
Headland ML, 2019 ¹⁶¹	Australia	diet	332	49.3	83.1	33.5	/	/	/	/
Gorostegi-Anduaga I, 2018 ¹⁶²	Spain	diet + exercise	167	53.7	35.33		/	/	/	/
Yousefi R, 2018 ¹⁶³	Iran	others	38	39.98	81.58	32.83	/	/	/	/

Oh M, 2018 ¹⁶⁴	korea	diet + exercise	45	36.5	57.78	27.4	/	/	/	/
Varsamis P, 2019 ¹⁶⁵	Australia	others	28	23	53.57	31	/	/	/	/
Loves S, 2018 ¹⁶⁶	Netherlands	medicine	16		0	35.2	/	/	/	/
Camacho-Cardenosa A, 2018 ¹⁶⁷	Spain	exercise	59	40.89	100	28.98	/	/	/	/
Kakutani R, 2018 ¹⁶⁸	Japan	others	80	49.8	16.25	27.14	/	/	/	/
Oliveira-de-Lira L , 2018 ¹⁶⁹	Brazil	others	75	34.07	100		/	/	/	/
Allaire J., 2018 ¹⁷⁰	Canada	others	138	52	70	29.4	/	/	/	/
Gram AS, 2018 ¹⁷¹	Denmark	exercise	90	34.58	48.89	29.87	/	/	/	/
Azevedo FR, 2018 ¹⁷²	Brazil	surgery	20	51	0	31.9	/	/	/	/
Fatahi S, 2018 ¹⁷³	Iran	diet	75	36.9	100	32.4	/	/	/	/
Alcántara-Aragón V, 2018 ¹⁷⁴	Spain	others	183	44.5	83.6	34.75	/	/	/	/
Mundbjerg LH, 2018 ¹⁷⁵	Denmark	surgery	60	42.3	70	43	/	/	/	/
McKay DL, 2018 ¹⁷⁶	USA	others	26	59.7	19.23	29.2	/	/	/	/

Lee YJ, 2018 ¹⁷⁷	korea	diet	75	45.1	65.33	27.3	/	/	/	/
Padilla-Camberos E, 2018 ¹⁷⁸	Mexico	others	28	33.3	39.29	35.2	/	/	/	/
Ramos-Lopez O, 2018 ¹⁷⁹	Spain	diet	107	46.8	66.36	31.8	/	/	/	/
Mateo-Gallego R, 2018 ¹⁸⁰	Spain	diet	76	44	100	32.8	/	/	/	/
Shrivastava U, 2017 ¹⁸¹	India	others	267	37.1	14.23	28.21	/	/	/	/
Wagmacker DS, 2017 ¹⁸²	Brazil	exercise	66	24	100	29	/	/	/	/
Ando Y, 2017 ¹⁸³	Japan	others	17	47	17.65	25.7	/	/	/	/
Rock CL, 2017 ¹⁸⁴	USA	others	100	52.7	58	32.4	/	/	/	/
Schiavon CA, 2018 ¹⁸⁵	Brazil	surgery	100	43.8	76	36.9	/	/	/	/
Blomquist C, 2018 ¹⁸⁶	Sweden	diet	56	60.5	100	32.5	/	/	/	/
Lima RPA, 2017 ¹⁸⁷	Brazil	others	40		100	30.5	/	/	/	/
Ferreira TDS, 2017 ¹⁸⁸	Brazil	others	16	34.31	100	34.2	/	/	/	/
O'Doherty AF, 2017 ¹⁸⁹	UK	others	11	31.5	0	29.9	/	/	/	/

Pedley CF, 2018 ¹⁹⁰	USA	lifestyle	301	58	57		/	/	/	/
Chung J, 2017 ¹⁹¹	korea	exercise	36	48.95	100	25.08	/	/	/	/
Fedewa MV, 2018 ¹⁹²	USA	exercise	44	20.4	100	29.8	/	/	/	/
Kleist B, 2017 ¹⁹³	Germany	diet + exercise	82	39.4	56.1	31.9	/	/	/	/
Vella CA, 2017 ¹⁹⁴	USA	exercise	17	26.2	59	31.6	/	/	/	/
Gulati S, 2017 ¹⁹⁵	India	others	122		57.38	30.4	/	/	/	/
Rodriguez-Cristobal JJ, 2017 ¹⁹⁶	Spain	others	846	56.53	77.19	34.1	/	/	/	/
Vink RG, 2017 ¹⁹⁷	The Netherlands	diet	16	48.8	62.5	32.4	/	/	/	/
Vors C, 2017 ¹⁹⁸	France	others	8	31	0	33	/	/	/	/
Ribeiro C, 2017 ¹⁹⁹	Brazil	others	78	36	69.23	31.8	/	/	/	/
Ard JD, 2017 ²⁰⁰	USA	lifestyle	409	46.5	100	38.6	/	/	/	/
Littlefield LA, 2017 ²⁰¹	USA	exercise	9	43	0	31.8	/	/	/	/
Houghton D, 2017 ²⁰²	UK	exercise	27	54	0	31	/	/	/	/
Trepanowski JF ,	USA	diet	100	44	14	35	/	/	/	/

2017 ²⁰³										
Fathi Y, 2017 ²⁰⁴	Iran	others	133	35.58	100	29.04	/	/	/	/
Juliana N, 2017 ²⁰⁵	Malaysia	others	31	49.8	100	30.2	/	/	/	/
Bonfante IL, 2017 ²⁰⁶	Brazil	exercise	22	49.13	0	30.86	/	/	/	/
Heggen E, 2017 ²⁰⁷	Norway	others	108	51	73.15	30.5	/	/	/	/
Williams EJ, 2017 ²⁰⁸	Australia	others	56	59.7	57.14	35.8	/	/	/	/
Peterli R, 2017 ²⁰⁹	Switzerland	surgery	128	43	72	44	/	/	/	/
Merra G, 2017 ²¹⁰	Italy	diet	54	44.6	70	31.31	/	/	/	/
Pal S, 2017 ²¹¹	Australia	others	107	49.14	57.48	32.38	/	/	/	/
Bergeron N, 2016 ²¹²	USA	others	52	44.1	61.54	30.7	/	/	/	/
Wittmann K, 2016 ²¹³	Germany	others	75	77	100	24.1	/	/	/	/
Veum VL, 2017 ²¹⁴	Norway	diet	38		0	33.9	/	/	/	/
Coelho R, 2017 ²¹⁵	Brasil	others	15	31	100	31	/	/	/	/
Kirwan JP, 2016 ²¹⁶	USA	diet	33	39	81.82	33.1	/	/	/	/
Madjd A, 2016 ²¹⁷	Iran	exercise	75	29.5	100	32	/	/	/	/
Duncan S, 2016 ²¹⁸	Australia	others	313	54	43.77	32.8	/	/	/	/

Lee M, 2016 ²¹⁹	korea	others	63	30.59	37.5	27.87	/	/	/	/
Normandin E, 2017 ²²⁰	USA	diet + exercise	126	69.5	56.35	30.6	/	/	/	/
de Luis D, 2016 ²²¹	Spain	diet	29	45.8	58.62	33.17	/	/	/	/
Madjd A, 2017 ²²²	Iran	diet	81	34.79	100	33.02	/	/	/	/
Mosikanon K, 2017 ²²³	Thailand	others	44	41.27	70.45	27.71	/	/	/	/
Nikseresht M, 2016 ²²⁴	Iran	exercise	33	39.66	0		/	/	/	/
Raatz SK, 2016 ²²⁵	USA	others	19	51.6	57.89	29.2	/	/	/	/
Ruggenenti P, 2017 ²²⁶	Italy	diet	70	59.8	14.9	29.8	/	/	/	/
Risstad H, 2016 ²²⁷	Norway	surgery	113	39.7	64.6	53.4	/	/	/	/
Tomeleri CM, 2016 ²²⁸	Brazil	exercise	38	68.2	100	27.5	/	/	/	/
Cox AJ, 2017 ²²⁹	Australia	others	115	35.5	66.96	26.3	/	/	/	/
Camolas J, 2017 ²³⁰	Portugal	lifestyle	94	44.86	80.85	43.14	/	/	/	/
Valsesia A, 2016 ²³¹	Switzerland	diet	383	42	0	34.3	/	/	/	/
Weiss EP, 2016 ²³²	USA	diet + exercise	52	57	75	27.7	/	/	/	/
Byun MS, 2016 ²³³	korea	others	166		51.8	25.16	/	/	/	/

Mensingher JL, 2016 ²³⁴	USA	others	80		100	38	/	/	/	/
Arzola-Paniagua MA, 2016 ²³⁵	Mexico	medicine	84	38.7	83.33	35.1	/	/	/	/
Dempsey PC, 2016 ²³⁶	Australia	exercise	24	62	41.67	62	/	/	/	/
Firouzjaei A, 2016 ²³⁷	China	medicine	39	41.33	58.97	27.9	/	/	/	/
Dutour A, 2016 ²³⁸	France	medicine	44	52	52	36.1	/	/	/	/
Tan S, 2016 ²³⁹	China	exercise	26	50.3	100	28.2	/	/	/	/
Ma W, 2016 ²⁴⁰	USA	diet	768	50.7	63.8	32.6	/	/	/	/
Rigamonti AE, 2017 ²⁴¹	Italy	surgery	10	38.8	60	46	/	/	/	/
Ji M, 2016 ²⁴²	China	medicine	166	53.85	61.45	27.7	/	/	/	/
Daubenmier J, 2016 ²⁴³	USA	others	194	47.5	82.47	35.5	/	/	/	/
Razny U, 2015 ²⁴⁴	Poland	diet	48	47	79.17	34.75	/	/	/	/
Magkos F, 2016 ²⁴⁵	USA	others	33	44	81.82	37.9	/	/	/	/
Hosseini B, 2016 ²⁴⁶	Iran	others	42		0	31.8	/	/	/	/
Li J, 2016 ²⁴⁷	USA	diet	34	53.5	67.65	30.9	/	/	/	/
Stroeve JH, 2016 ²⁴⁸	Denmark	diet	558	42	64.16	32.7	/	/	/	/
Le T, 2016 ²⁴⁹	USA	diet	245	50	100	33.5	/	/	/	/

Ohara T, 2016 ²⁵⁰	Japan	others	74	49.1	50	26.4	/	/	/	/
Juraschek SP, 2016 ²⁵¹	USA	diet	163	52.6	52	32.3	/	/	/	/
Henson J, 2016 ²⁵²	UK	exercise	22	66.6	100	32.9	/	/	/	/
Loftus HL, 2015 ²⁵³	Australia	others	30	41.4	70.73	32.5	/	/	/	/
Besnier F, 2015 ²⁵⁴	France	diet + exercise	136	30.1	100	33.1	/	/	/	/
Said M, 2017 ²⁵⁵	Saudi Arabia	exercise	32	30.12	100	32.6	/	/	/	/
Fisher G, 2015 ²⁵⁶	USA	exercise	28	20	0	29.5	/	/	/	/
Barbour JA,, 2015 ²⁵⁷	Australia	others	61	65	52.46	31	/	/	/	/
Ribeiro AS, 2016 ²⁵⁸	UK	others	28	23.1	100	29.5	/	/	/	/
Rozati M, 2015 ²⁵⁹	USA	others	41	72	65.85	29	/	/	/	/
Yang J, 2015 ²⁶⁰	China	surgery	64	40.9	65.63	32.1	/	/	/	/
Pi-Sunyer X, 2015 ²⁶¹	USA	medicine	3731	45.1	78.5	38.3	/	/	/	/
Osama AJ, 2015 ²⁶²	Saudi Arabia	exercise	100	36.76	44	33	/	/	/	/
Chen IJ, 2016 ²⁶³	Taiwan	others	77	44.5	100	30.5	/	/	/	/

Romero-Moraleda B, 2015 ²⁶⁴	Spain	exercise	173	38.2	53.33	30.45	/	/	/	/
Rossi FE, 2016 ²⁶⁵	Brazil	exercise	70	61	100	28.89	/	/	/	/
Song MY, 2015 ²⁶⁶	korea	others	28	29.34	100	36.03	/	/	/	/
Soto-Molina H, 2015 ²⁶⁷	Mexico	medicine	156	38.9	85.26	35.1	/	/	/	/
Mahdavi R, 2015 ²⁶⁸	Iran	others	84	40.3	100	32.3	/	/	/	/
Bruun JM, 2015 ²⁶⁹	Denmark	others	47	38.6	63.83	32.1	/	/	/	/
Gatterer H, 2015 ²⁷⁰	Germany	others	27	51.3	68.75	37.1	/	/	/	/
Mateo-Gallego R , 2017 ²⁷¹	Spain	diet	91	44	100	37.7	/	/	/	/
Xu M, 2015 ²⁷²	USA	diet	743	51.1	39	32.66	/	/	/	/
Cho IJ, 2016 ²⁷³	korea	others	41	40	53.66	27.1	/	/	/	/
Robert SA, 2015 ²⁷⁴	Malaysia	medicine	42	34	0	35.9	/	/	/	/
Ghafouri K, 2015 ²⁷⁵	UK	exercise	10	35.9	0	30.4	/	/	/	/
Alencar MK, 2015 ²⁷⁶	USA	others	10	52	100	39.1	/	/	/	/
Fuller NR, 2015 ²⁷⁷	Australia	diet	140	59.8	55	34.6	/	/	/	/
McFarlin BK, 2015 ²⁷⁸	USA	others	14	22	100	31	/	/	/	/

Macías-Cervantes MH, 2015 ²⁷⁹	Mexico	diet + exercise	43	42.6	0	28.9	/	/	/	/
Risstad H, 2015 ²⁸⁰	Norway	surgery	60	35.6	70	55	/	/	1.67%	/
Dodevska MS, 2016 ²⁸¹	Serbia	diet	50	57.66	62	32.07	/	/	/	/
Rezaeipour M, 2014 ²⁸²	Ukraine	diet + exercise	30	58.8	0	30.65	/	/	/	/
Bajerska J, 2015 ²⁸³	Poland	others	44	53	61.36	35	/	/	/	/
Yamauchi K, 2014 ²⁸⁴	Japan	lifestyle	18	57.2	50	28	/	/	/	/
Moreira AP, 2016 ²⁸⁵	Brazil	diet	65	27	0	29.9	/	/	/	/
Cases J, 2015 ²⁸⁶	France	others	17	40.7	52.94	31.2	/	/	/	/
Worsley R, 2015 ²⁸⁷	Australia	medicine	117	53.2	100	32.8	/	/	/	/
Hoddy KK, 2014 ²⁸⁸	USA	others	59	45	84.75	34	/	/	/	/
Tay J, 2014 ²⁸⁹	Australia	diet	115	58	42.61	34.6	/	/	/	/
Foraker RE, 2014 ²⁹⁰	USA	diet	79	41.4	100	30.3	/	/	/	/
Choo J, 2014 ²⁹¹	korea	exercise	110	43.1	100	28.5	/	/	/	/
van Nielen M, 2014 ²⁹²	The Netherlands	others	15	61	100		/	/	/	/

Moreira Alves RD , 2014 ²⁹³	Brazil	others	69	27.3	0	29.8	/	/	/	/
Bracale R, 2014 ²⁹⁴	Italy	others	13	36.3	100	48	/	/	/	/
Telles S, 2014 ²⁹⁵	India	exercise	68	33.2	51.47	36.4	/	/	/	/
Larsen RN, 2014 ²⁹⁶	Australia	exercise	19	53.8	42	31.2	/	/	/	/
Guo Y, 2014 ²⁹⁷	China	others	64	37	48.44	34.2	/	/	/	/
Saslow LR, 2014 ²⁹⁸	USA	diet	34	59.7	73.53	36.8	/	/	/	/
Tapsell LC, 2014 ²⁹⁹	Australia	diet	112	48.9	75.22	29.98	/	/	/	/
Lowndes J, 2014 ³⁰⁰	USA	diet	65	39.12	47.69	28.58	/	/	/	/
Thorp AA, 2014 ³⁰¹	Australia	others	23	48.2	26.09	29.6	/	/	/	/
Wong AT, 2014 ³⁰²	Australia	others	25	60	48	34	/	/	/	/
Calbet JA, 2015 ³⁰³	Spain	diet +	15	41	0	30.4	/	/	/	/
	Sweden	exercise								
Mirzaei K, 2014 ³⁰⁴	Iran	medicine	94	40.2	75.53	35.2	/	/	/	/
Mellberg C, 2014 ³⁰⁵	Sweden	diet	70	59.9	100	32.7	/	/	/	/
Milsom VA, 2014 ³⁰⁶	USA	others	112	48.01	89.29	31.44	/	/	/	/

Shirai K, 2013 ³⁰⁷	Japan	diet	229	51.1	55.02	30.4	/	/	/	/
Rabinovitz HR, 2014 ³⁰⁸	Israel	diet	59	60.7	64.41	32.4	/	/	/	/
Mielgo-Ayuso J , 2014 ³⁰⁹	Spain	others	78		100	34	/	/	/	/
Hollander P, 2013 ³¹⁰	USA	medicine	424	53.9	54	36.6	/	/	/	/
Alves NE, 2014 ³¹¹	Brazil	diet	22	35.04	100	28.72	/	/	/	/
Ruth MR, 2013 ³¹²	USA	diet	55	42.5	89	36.5	/	/	/	/
Tovar J, 2014 ³¹³	Sweden	diet	64	61.6	100	28.8	/	/	/	/
Croymans DM, 2014 ³¹⁴	USA	exercise	36	21	0	31.4	/	/	/	/
Vetter ML, 2013 ³¹⁵	USA	lifestyle	390	51.5	79.7	38.5	/	/	/	/
Vinkers CD, 2014 ³¹⁶	The Netherlands	others	143	55.69	40.56	29.59	/	/	/	/
Botero JP, 2014 ³¹⁷	Brazil	exercise	32	35	100	31.97	/	/	/	/
Hu X, 2013 ³¹⁸	china	others	39	23.2	68.75	25.9	/	/	/	/
Kim SH, 2013 ³¹⁹	USA	medicine	51	58	64.7	31.9	/	/	/	/
Bouchonville M , 2014 ³²⁰	USA	exercise	107	70	62.62	37.2	/	/	/	/

Romero Moraleda B, 2013 ³²¹	Spain	exercise	96	36.2	50	33.64	/	/	/	/
Ikramuddin S, 2013 ³²²	USA	surgery	120	49	60	34.6	/	/	/	/
Tey S, 2013 ³²³	new Zealand	others	107	42.5	57	30.6	/	/	/	/
Nicklas JM, 2013 ³²⁴	USA	diet	710	52	61		/	/	/	/
Stocks T, 2013 ³²⁵	Denmark	diet	585	37.1	75.38	35.5	/	/	/	/
Wright OR, 2013 ³²⁶	Australia	others	16	53.1	0	32.8	/	/	/	/
Kim SH, 2014 ^{327,328}	korea	lifestyle	35	48.4	45.71	28.2	/	/	/	/
Munro IA, 2013 ³²⁸	Australia	others	33	40.58	66.67	32.54	/	/	/	/
Astell KJ, 2013 ³²⁹	Australia	others	33	46.6	78.79	32.2	/	/	/	/
Tonstad S, 2014 ³³⁰	USA	diet	173	48.4	73.99	36.5	/	/	/	/
Venojärvi M, 2013 ³³¹	Finland	exercise	115	54.5	0	29.6	/	/	/	/
Lamprecht M, 2013 ³³²	Austria	others	42	41	100	34.5	/	/	/	/
Tang M, 2013 ³³³	USA	diet	43	48	0	31.7	/	/	/	/
Reimer RA, 2013 ³³⁴	Japan	others	56		55.36	27.0	/	/	/	/

Fuller NR, 2013 ³³⁵	Australia	surgery	66	45.9	66.67	36.4	/	/	/	/
Jakubowicz D, 2013 ³³⁶	Israel	diet	93	45.8	100	32.4	/	/	/	/
Beebe N, 2013 ³³⁷	USA	diet + exercise	26	61.5	100	34.3	/	/	/	/
Unick JL, 2013 ³³⁸	USA	lifestyle	2503		0	35.9	/	/	/	/
Mohler ER, 2013 ³³⁹	USA	diet	121	45.7	65	35.8	/	/	/	/
Bhutani S, 2013 ³⁴⁰	USA	diet + exercise	83	44	98.39	35	/	/	/	/
Webber KH, 2013 ³⁴¹	USA	others	50	46	86	35.1	/	/	/	/
Marinik EL, 2013 ³⁴²	USA	medicine	16	49.5	50	33	/	/	/	/
Zhu W, 2013 ³⁴³	China	others	43	20.2	90.7	25.9	/	/	/	/
García-Unciti M , 2012 ³⁴⁴	Spain	diet + exercise	34	50	100	34.9	/	/	/	/
Vix M, 2013 ³⁴⁵	France	surgery	100	35.18	82	46.25	/	/	/	/
Klempel MC, 2012 ³⁴⁶	USA	diet	54	47	100	35	/	/	/	/
Venojärvi M, 2013 ³⁴⁷	Finland	exercise	115	54	0	29.6	/	/	/	/
Ho SS, 2012 ³⁴⁸	Australia	exercise	64	53	84.38	32.9	/	/	/	/

Fayh AP, 2013 ³⁴⁹	Brazil	diet + exercise	48	31.9	66.7	34.8	/	/	/	/
Sengupta K, 2012 ³⁵⁰	India	medicine	41	39.5	70.7	33.7	/	/	/	/
Itariu BK, 2012 ³⁵¹	Austria	others	55	38.5	83.64	46.6	/	/	/	/
Whyte LJ, 2013 ³⁵²	UK	exercise	10	26.9	0	29.9	/	/	/	/
Melanson KJ, 2012 ³⁵³	USA	diet	157	38.7	87.9	31.34	/	/	/	/
Ponce J, 2012 ³⁵⁴	USA	surgery	30	40.8	86.7	35	/	/	/	/
Klempel MC, 2013 ³⁵⁵	USA	diet	32	42.8	100	35.4	/	/	/	/
Zhang X, 2012 ³⁵⁶	USA	diet	734	50.9	61.17	32.7	/	/	/	/
Ke B, 2012 ³⁵⁷	China	diet + medicine	85	46.1	49.41	28.6	/	/	/	/
Abdi H, 2012 ³⁵⁸	Iran	others	169	38	0	31.78	/	/	/	/
Foster GD, 2012 ³⁵⁹	USA	diet	123	46.8	91.06	34	/	/	/	/
Ebbeling CB, 2012 ³⁶⁰	USA	diet	21	30.3	38	34.4	/	/	/	/
Kelly AS, 2012 ³⁶¹	USA	medicine	50	58.5	76	35.6	/	/	/	/
Suliburska J, 2012 ³⁶²	Poland	others	46	50.41	50	32.76	/	/	/	/
Alizadeh M, 2012 ³⁶³	Iran	diet	68	35.3	100		/	/	/	/

Bjermo H, 2012 ³⁶⁴	Sweden	others	61		0	30.8	/	/	/	/
Backhouse K, 2012 ³⁶⁵	UK	medicine	30	57.8	100	33	/	/	/	/
Kim JW, 2012 ³⁶⁶	korea	exercise	30	53.46	100	25.08	/	/	/	/
Greene NP, 2012 ³⁶⁷	USA	exercise	18	45	44.44	31.9	/	/	/	/
Boesten JE, 2012 ³⁶⁸	The Netherlands	medicine	222	59.2	39.64	32.2	/	/	/	/
Chen SC, 2012 ³⁶⁹	Taiwan	others	63	32.8	66.7	27.81	/	/	/	/
Elisha B, 2012 ³⁷⁰	Canada	diet + exercise	132	57.2	100	35	/	/	/	/
Maersk M, 2012 ³⁷¹	Denmark	others	47	39	63.83	32.1	/	/	/	/
Ross AB, 2012 ³⁷²	UK	others	267	45.7	50.45	30.2	/	/	/	/
Andersson U, 2012 ³⁷³	Sweden	others	31	57	70.97	35.3	/	/	/	/
Familiari P, 2011 ³⁷⁴	Italy	surgery	67	41	70.15	41.5	/	/	/	/
Dillard TH, 2013 ³⁷⁵	Canada	surgery	26		75	41.9	/	/	/	/
Lee JA, 2012 ³⁷⁶	korea	exercise	16	54.5	100	25.16	/	/	/	/
Zunino SJ, 2012 ³⁷⁷	USA	others	20	31	65	34.4	/	/	/	/

Timmers S, 2011 ³⁷⁸	The Netherlands	others	11	31.59	0	31.59	/	/	/	/
Balducci S, 2012 ³⁷⁹	Italy	exercise	73	60.6	45.2	31.3	/	/	/	/
Valente EA, 2011 ³⁸⁰	USA	diet + exercise	27	66.6	59.26	31.7	/	/	/	/
Farina MG, 2012 ³⁸¹	Italy	surgery	50	35	78	41.8	/	/	/	/
Leichtle AB, 2011 ³⁸²	Israel	diet	90	53	0	28.7	/	/	/	/
Petry NM, 2011 ³⁸³	USA	surgery	56	45.7	87.5	34.1	/	/	/	/
Brown AL, 2011 ³⁸⁴	UK	others	137	49.4	0	31.5	/	/	/	/
Kim EK, 2011 ³⁸⁵	korea	others	22	38.6	68.18	27.7	/	/	/	/
Pfeuffer M, 2011 ³⁸⁶	Germany	others	81		0	28.3	/	/	/	/
Lyon M, 2011 ³⁸⁷	France	others	59	37.2	53.33	30.5	/	/	/	/
Dekkers JC, 2011 ³⁸⁸	The Netherlands	lifestyle	276	44	30.8	29.7	/	/	/	/
Farnetti S, 2011 ³⁸⁹	Italy	others	12	41	100	32.8	/	/	/	/
Venn BJ, 2010 ³⁹⁰	UK	diet	108	42	86.11	35.4	/	/	/	/
Chen SC, 2010 ³⁹¹	Taiwan	exercise	104	58.3	46.73	33.4	/	/	/	/

Miyashita M, 2010 ³⁹²	Japan	exercise	10	46	0	31.6	/	/	/	/
Morenga LT, 2010 ³⁹³	New Zealand	diet	83	41.7	100	32.6	/	/	/	/
Pal S, 2011 ³⁹⁴	Australia	diet	57	43	61.4	34.4	/	/	/	/
Greenway FL, 2010 ³⁹⁵	USA	medicine	1742	44.2	85	36.2	/	/	/	/
Torres MR, 2010 ³⁹⁶	Brazil	diet	50	40.4	90	32.2	/	/	/	/
Herrera MF, 2010 ³⁹⁷	Mexico	surgery	22	38.3	81.82	44.7	/	/	/	/
Palacios C, 2011 ³⁹⁸	USA	others	24	37.7	80	38.4	/	/	/	/
Ferré R, 2012 ³⁹⁹	Spain	lifestyle	142	54.1	74.6	31.6	/	/	/	/
Pal S, 2010 ⁴⁰⁰	Australia	others	20		100		/	/	/	/
Hermisdorff HH , 2011 ⁴⁰¹	Spain	diet	30	36	43.33	32.5	/	/	/	/
Plotnikoff RC, 2010 ⁴⁰²	Canada	exercise	48	55	66.67	35	/	/	/	/
Papakonstantinou E, 2010 ⁴⁰³	Greece	diet	17	46	70.59	34	/	/	/	/
Wycherley TP, 2010 ⁴⁰⁴	Australia	diet + exercise	59	56.1	0	35.4	/	/	/	/

Jorde R, 2010 ⁴⁰⁵	Norway	others	438	47.5	64.2	34.7	/	/	/	/
Hernandez TL, 2010 ⁴⁰⁶	USA	diet	32	43.1	68.75	36.3	/	/	/	/
Ibáñez J, 2010 ⁴⁰⁷	Spain	exercise	34	50	100	34.9	/	/	/	/
Gripeteg L, 2010 ⁴⁰⁸	Sweden	diet	169	41.3	64.5	41.6	/	/	/	/
Tapsell L, 2010 ⁴⁰⁹	Australia	diet	122	44.4	0	31	/	/	/	/
Armendáriz-Anguiano AL, 2011 ⁴¹⁰	Mexico	diet	54	35.4	67.2	31.6	/	/	/	/
Amare F, 2024 ⁴¹¹	Ethiopia	exercise	20	49.15	0	27.67	/	/	/	/
Chen CY, 2024 ⁴¹²	Taiwan	others	53	59.8	100	26.7	/	/	/	/
Chandake S, 2024 ⁴¹³	India	others	48	43.5	70.8	30.96	/	/	/	/
Baba Y, 2024 ⁴¹⁴	Japan	others	40	47.75	80	26.78	/	/	/	/
Sooriyaarachchi P , 2024 ⁴¹⁵	Sri Lanka	others	50	36.1	78	31	/	/	/	/
Lee Y, 2024 ⁴¹⁶	korea	others	21	30.24	100	24.59	/	/	/	/
Elahikhah M, 2024 ⁴¹⁷	Iran	others	41	36.95	100	34.37	/	/	/	/
Dotimas LG, 2024 ⁴¹⁸	USA	others	39	26.5	43.59	27.3	/	/	/	/
Govindasamy K ,	India	exercise	60		0	30.04	/	/	/	/

2024 ⁴¹⁹										
Shin SM, 2024 ⁴²⁰	korea	others	100	48.02	85	27.43	/	/	/	/
Mongkolsucharitkul P, 2024 ⁴²¹	Thailand	others	41	50	58.5	30	/	/	/	/
Laouani A, 2024 ⁴²²	Tunisia	others	43	41.32	100	34.54	/	/	/	/
Khan G, 2024 ⁴²³	Pakistan	others	60		40	31.43	/	/	/	/
Diao Z, 2024 ⁴²⁴	Iran	diet	120	42.51	39.17	28.29	/	/	/	/
López-Yerena A , 2023 ⁴²⁵	Spain	others	40	40.8	32.5	31.16	/	/	/	/
Aghabeiglooei Z , 2023 ⁴²⁶	Iran	diet	60	35.2	100	31.34	/	/	/	/
Tricò D, 2024 ⁴²⁷	Italy	diet	23	67.2	47.8	29.4	/	/	/	/
Lincoff AM, 2023 ⁴²⁸	USA	medicine	17604	61.6	27.7	33.3	/	/	/	/
Zhang X, 2023 ⁴²⁹	USA	lifestyle	40	50	90	36.1	/	/	/	/
Luo Y, 2023 ⁴³⁰	China	diet	1348	55	52.3	24.2	/	/	/	/
Sordi AF, 2023 ⁴³¹	Brazil	others	35	47	24.24	31.4	/	/	/	/
Carter S, 2023 ⁴³²	Australia	others	140	47.5	70	30.7	/	/	/	/

Clina JG, 2023 ⁴³³	USA	diet	106	54.8	75.47	38.8	/	/	/	/
Niu Y, 2023 ⁴³⁴	China	exercise	81	18.52	0	26.25	/	/	/	/
Grohmann T, 2023 ⁴³⁵	UK	others	14	57.7	71.43	35.9	/	/	/	/
Sun L, 2023 ⁴³⁶	China	medicine	39	47.17	66.67	26.48	/	/	/	/
Quaresma LS, 2023 ⁴³⁷	Brazil	others	20		100	34.2	/	/	/	/
Aldubayan MA , 2023 ⁴³⁸	Denmark	others	82	45	68	32	/	/	/	/
Cho E, 2023 ⁴³⁹	korea	others	100	50	37	28.2	/	/	/	/
Castaldo G, 2023 ⁴⁴⁰	Italy	others	60	37.77	80	46.59	/	/	/	/
Ghalichi F, 2023 ⁴⁴¹	Iran	others	44	52.39	22.73	36.71	/	/	/	/
Felipe LA, 2023 ⁴⁴²	Brazil	surgery	32	42.44	100	46.32	/	/	/	/
Ragland TJ, 2023 ⁴⁴³	USA	diet + exercise	25	48.6	100	37.6	/	/	/	/
Cai H, 2023 ⁴⁴⁴	China	others	156	40.9	36.54	30	/	/	/	/
Turner-McGrievy GM, 2023 ⁴⁴⁵	USA	diet	159	48.3	79		/	/	/	/
Belany P, 2023 ⁴⁴⁶	USA	diet	37	33	51	30.6	/	/	/	/

Gayathri R, 2023 ⁴⁴⁷	India	others	352	38	0	28.4	/	/	/	/
Cruvinel BAC, 2023 ⁴⁴⁸	Brasil	others	30	49	60	32.78	/	/	/	/
Hassan RHA, 2023 ⁴⁴⁹	Egypt	others	10	34.5	100		/	/	/	/
Carvalho APSd , 2023 ⁴⁵⁰	Brazil	diet	87	43.18	100	36.6	/	/	/	/
Sohn M, 2023 ⁴⁵¹	korea	others	99	40.2	57.58	27.4	/	/	/	/
Rondanelli M, 2022 ⁴⁵²	Italy	others	28	58.75	100	31.55	/	/	/	/
Rebello CJJ, 2022 ⁴⁵³	USA	others	36	45	77.78	34.18	/	/	/	/
Xu R, 2022 ⁴⁵⁴	China	diet	48	21.3	56.25	25.86	/	/	/	/
Reis PCdSG, 2022 ⁴⁵⁵	Brazil	others	35	48.29	100	31.1	/	/	/	/
Colak D, 2022 ⁴⁵⁶	Slovenia	surgery	26	50.7	73.08	47.8	/	/	/	/
Freer CL, 2022 ⁴⁵⁷	Australia	exercise	29	67.3	44.83	31.9	/	/	/	/
Yin W, 2022 ⁴⁵⁸	China	others	99	47.3	59.6	29.15	/	/	/	/
Coker MS, 2022 ⁴⁵⁹	USA	others	29	68.3	58.62	32.3	/	/	/	/
Mohammadi-Sartang M, 2023 ⁴⁶⁰	Iran	others	84	43.6	67.86	30.3	/	/	/	/
Jamshed H, 2022 ⁴⁶¹	USA	diet	90	43	80	39.6	/	/	/	/

Roach LA, 2022 ⁴⁶²	Australia	others	124	53	55.65	30	/	/	/	/
Kleinloog JPD, 2022 ⁴⁶³	The Netherlands	exercise	17	67	0	30.3	/	/	/	/
Pavão TP, 2022 ⁴⁶⁴	Brazil	others	18	37.4	61.1	28.96	/	/	/	/
Castela I, 2022 ⁴⁶⁵	Norway	diet	28	39.3	78.57	35.4	/	/	/	/
Chekima K, 2022 ⁴⁶⁶	Malaysia	others	40	26.4	57.5	29.4	/	/	/	/
Cipryan L, 2022 ⁴⁶⁷	Czechia	diet + exercise	91	43	70.33	30	/	/	/	/
Ali Sangouni A , 2022 ⁴⁶⁸	Iran	others	71	50	43.67	27.38	/	/	/	/
Timmons JF, 2023 ⁴⁶⁹	Ireland	exercise	18	25.7	0	27.7	/	/	/	/
Catley D, 2022 ⁴⁷⁰	South Africa	others	494	67.7	88.66	34.54	/	/	/	/
Mendelson M, 2022 ⁴⁷¹	France	exercise	60	54	31.67	31.5	/	/	/	/
Ruban A, 2022 ⁴⁷²	UK	surgery	170	51.8	46	36.3	/	/	/	/
Li Y, 2022 ⁴⁷³	China	others	69	30.9	0	31.32	/	/	/	/
Vodouhè M, 2022 ⁴⁷⁴	Canada	others	56		61	33	/	/	/	/
Dimitrov Ulian M ,	Brazil	others	55	33	100	33.6	/	/	/	/

2022 ⁴⁷⁵											
Viveros-Watty PE , 2022 ⁴⁷⁶	Mexico	others	45	21.54	68.89	31.79	/	/	/	/	/
Chair SY, 2022 ⁴⁷⁷	China	diet	101	35.23	63.33	26.56	/	/	/	/	/
Karandish M, 2022 ⁴⁷⁸	Iran	others	82	36.04	68.29	30.21	/	/	/	/	/
Lim SL, 2022 ⁴⁷⁹	Singapore	others	148	53.1	39.86	29.8	/	/	/	/	/
Thomsen MN, 2022 ⁴⁸⁰	Denmark	diet	67	66.7	47.76	33.4	/	/	/	/	/
Seeberg KA, 2022 ⁴⁸¹	Norway	surgery	100	46.5	65	42	/	/	/	/	/
Ruegsegger GN , 2022 ⁴⁸²	USA	diet	12	35.9	0	32.4	/	/	/	/	/
Liu B, 2021 ⁴⁸³	Australia	diet	76	51	100	32.1	/	/	/	/	/
Cao JJ, 2021 ⁴⁸⁴	USA	others	102	40.6	75.49	34.6	/	/	/	/	/
Kang C, 2021 ⁴⁸⁵	China	medicine	159	48.49	45.28	27.334	/	/	/	/	/
Che T, 2021 ⁴⁸⁶	China	others	120	48.5	45.83	26.25	/	/	/	/	/
Miller L, 2021 ⁴⁸⁷	USA	others	22	42.5	68.18	32.5	/	/	/	/	/
Batrakoulis A, 2021 ⁴⁸⁸	Greece	exercise	35	36.4	100	29.1	/	/	/	/	/
Chang WL, 2021 ⁴⁸⁹	Malaysia	others	49	29	65.3	25.25	/	/	/	/	/

Serna A, 2022 ⁴⁹⁰	Spain	others	33	33.76	51.5	28.2	/	/	/	/
Delgado-Floody P , 2021 ⁴⁹¹	Chile	exercise	26	40.14	100	41.77	/	/	/	/
Falkenhain K, 2021 ⁴⁹²	USA	others	155	41	71	34	/	/	/	/
Said MA, 2021 ⁴⁹³	Saudi Arabia	exercise	57	21.74	0	36.21	/	/	/	/
Ahmadniay Motlagh H, 2021 ⁴⁹⁴	Sweden	others	52	39.81	100	30.78	/	/	/	/
Te Morenga L, 2021 ⁴⁹⁵	New Zealand	others	41	33.9	48.78	31.6	/	/	/	/
Shikishima Y, 2021 ⁴⁹⁶	Japan	others	38	46.6	50	25.2	/	/	/	/
Liddle DM, 2021 ⁴⁹⁷	Canada	others	44	45.4	68.18	33.4	/	/	/	/
Wang J, 2021 ⁴⁹⁸	USA	others	95	47.7	74.74	30.9	/	/	/	/
Grytten E, 2021 ⁴⁹⁹	Norway	others	39	56	41.03	29.2	/	/	/	/
Schroor MM, 2021 ⁵⁰⁰	The Netherlands	diet	18	65	0	30.5	/	/	/	/
Bhoite R, 2021 ⁵⁰¹	India	others	100	51	49	28.7	/	/	/	/

van der Merwe M , 2021 ⁵⁰²	USA	others	57	36.18	100	30.55	/	/	/	/
Waliko E, 2021 ⁵⁰³	Poland	diet	35	41.5	88.57	33.6	/	/	/	/
Ng SC, 2022 ⁵⁰⁴	China	others	61	55.5	70.49	32.1	/	/	/	/
do Rosario VA, 2021 ⁵⁰⁵	Australia	others	16	65.9	81.25	30.6	/	/	/	/
Amaro-Gahete FJ , 2021 ⁵⁰⁶	Spain	exercise	12	42.5	0	32.3	/	/	/	/
Kim KW, 2021 ⁵⁰⁷	korea	others	120	36.88	100	28.53	/	/	/	/
Jiang W, 2021 ⁵⁰⁸	China	others	254	31.85	41.34	32.42	/	/	/	/
D'Amuri A, 2021 ⁵⁰⁹	Italy	exercise	32	38.5	47	35.6	/	/	/	/
Yilmaz SK, 2021 ⁵¹⁰	Turkey	diet	60	33.2	100	32.5	/	/	/	/
Barnard ND, 2022 ⁵¹¹	USA	diet	62	57.4	77.42	34	/	/	/	/
Netto Cândido TL , 2021 ⁵¹²	Brazil	diet	52	26.81	100	29.9	/	/	/	/
Abbott K, 2020 ⁵¹³	Australia	others	61	51.5	63.93	32.9	/	/	/	/
Kruschitz R, 2020 ⁵¹⁴	Austria	surgery	50	42	80	44	/	/	/	/
Kahleova H, 2020 ⁵¹⁵	USA	diet	223	54.4	87	33.4	/	/	/	/

Cheshmazar E, 2020 ⁵¹⁶	Iran	others	55	37.63	66.1	32.33	/	/	/	/
Bove KB, 2020 ⁵¹⁷	Denmark	others	56	63.7	100	30.1	/	/	/	/
de Ligt M, 2020 ⁵¹⁸	Netherlands	others	41	62	41.46	29	/	/	/	/
Bratlie M, 2021 ⁵¹⁹	Norway	others	63	45.5	55.38	32.3	/	/	/	/
Klomklorm A, 2020 ⁵²⁰	Thailand	others	36	41.6	91.67	28.3	/	/	/	/
Li L, 2020 ⁵²¹	UK	others	15	28.7	66.67	28.3	/	/	/	/
Cienfuegos S, 2020 ⁵²²	USA	others	58	46	91.38	37	/	/	/	/
Jamar G, 2020 ⁵²³	Brazil	others	35	46.5	60	34.4	/	/	/	/
Goss AM, 2020 ⁵²⁴	USA	diet	34	70.2	64.71	34.3	/	/	/	/
Jafari-Maskouni S , 2020 ⁵²⁵	Iran	others	52	51.29	67.31	28.97	/	/	/	/
Takagi T, 2020 ⁵²⁶	Japan	others	24	46.7	0	28.8	/	/	/	/
Remie CME, 2020 ⁵²⁷	Netherlands	others	12	59	58.33	30.2	/	/	/	/
Joris PJ, 2020 ⁵²⁸	The Netherlands	others	59	60	32.2	28.5	/	/	/	/
Smeets E, 2021 ⁵²⁹	The Netherlands	diet	18	65	0	30.5	/	/	/	/

Campa F, 2020 ⁵³⁰	Italy	exercise	39	56.5	100	37.1	/	/	/	/
Reimer RA, 2020 ⁵³¹	Canada	others	290	54.8	68.28	39.9	/	/	/	/
Rock CL, 2020 ⁵³²	USA	others	100	55.6	62	32.8	/	/	/	/
Vors C, 2020 ⁵³³	France	others	58	59	100	29.7	/	/	/	/
Lopez HL, 2020 ⁵³⁴	USA	others	65	35.2	50.77	28.5	/	/	/	/
AlFaris NA, 2020 ⁵³⁵	Saudi Arabia	diet	78		100	35.1	/	/	/	/
Chow LS, 2020 ⁵³⁶	USA	others	20	45.5	85	34.1	/	/	/	/
Marco-Benedí V , 2020 ⁵³⁷	Spain	diet	73	55.6	56.2	32.8	/	/	/	/
Lin X, 2020 ⁵³⁸	Canada	others	26	45.5	65.38	34.1	/	/	/	/
Lorkowski SW, 2020 ⁵³⁹	USA	surgery	90	49.43	67.78	36.33	/	/	/	/
Tsintzas K, 2020 ⁵⁴⁰	UK	diet	8	46.4	0	32.3	/	/	/	/
Dolati S, 2020 ⁵⁴¹	Iran	others	40	38.43	100	27.47	/	/	/	/
Edinburgh RM, 2020 ⁵⁴²	UK	exercise	30		0	30.9	/	/	/	/
Asgary S, 2020 ⁵⁴³	Iran	others	40	32.58	55	29.65	/	/	/	/
Perissiou M, 2020 ⁵⁴⁴	Australia	diet	+ 64	35.3	32.81	30.3	/	/	/	/

exercise										
Kuo YC, 2020 ⁵⁴⁵	Taiwan	exercise	28	37.6	75	30.75	/	/	/	/
Nishimura M, 2020 ⁵⁴⁶	Japan	others	67	49.85	85.19	24.8	/	/	/	/
Gajewska D, 2019 ⁵⁴⁷	Poland	others	150	60.7	50.67	32.8	/	/	/	/
Karimi-Nazari E , 2019 ⁵⁴⁸	Iran	others	75	57.92	64	29.05	/	/	/	/
Tanaka Y, 2020 ⁵⁴⁹	Japan	others	96	41.4	49	26.1	/	/	/	/
Mollentze WF, 2019 ⁵⁵⁰	South Africa	diet	18	55.09	0	40.7	/	/	/	/
Chiang TL, 2019 ⁵⁵¹	Taiwan	exercise	32	19.72	0	30.38	/	/	/	/
Kraus WE, 2019 ⁵⁵²	USA	diet	218	38	69.72	25.2	/	/	/	/
Malik VS, 2019 ⁵⁵³	India	others	166	37.1	45	28.1	/	/	/	/
Aghasi M, 2019 ⁵⁵⁴	Iran	others	83	53.6	53.01	29.08	/	/	/	/
Hirsh SP, 2019 ⁵⁵⁵	USA	diet	22	41	68.18	27.3	/	/	/	/
Byrne CS, 2019 ⁵⁵⁶	UK	others	23	60	57		/	/	/	/
Taylor PJ, 2019 ⁵⁵⁷	Australia	others	20	60.55	50	34.22	/	/	/	/
Nunes PRP, 2019 ⁵⁵⁸	Brazil	exercise	26	62.6	100	31	/	/	/	/
Ejtahed HS, 2019 ⁵⁵⁹	Iran	medicine	36	36	100	34	/	/	/	/

Schroeder EC, 2019 ⁵⁶⁰	USA	exercise	69	58	61	32.4	/	/	/	/
Rynarzewski J, 2019 ⁵⁶¹	Germany	others	12	68	75	33.5	/	/	/	/
Otten J, 2019 ⁵⁶²	Sweden	diet + exercise	22	60	36.36	31	/	/	/	/
Aliashrafi S, 2019 ⁵⁶³	Iran	others	44	35.04	77.4		/	/	/	/
Ballin M, 2019 ⁵⁶⁴	Sweden	exercise	72	70.7	52	29.2	/	/	/	/
de Souza RGM, 2018 ⁵⁶⁵	Brazil	others	46		100	32.92	/	/	/	/
Amozadeh H, 2018 ⁵⁶⁶	Iran	others	39	28.11	100	33.36	/	/	/	/
Galvão Cândido F , 2018 ⁵⁶⁷	Brazil	others	41	27	100	30.1	/	/	/	/
Zapata-Lamana R , 2018 ⁵⁶⁸	Chile	exercise	52	23.3	100	33.8	/	/	/	/
Dollerup OL, 2018 ⁵⁶⁹	Denmark	others	40	59	0	32.9	/	/	/	/
González-Sarrías A , 2018 ⁵⁷⁰	Spain	others	49	45.7	34.69	30.4	/	/	/	/
Kim J, 2018 ⁵⁷¹	korea	others	90	38.4	70	28.4	/	/	/	/
Berk KA, 2018 ⁵⁷²	The	others	158	53.7	55.7	36.3	/	/	/	/

	Netherlands									
Madjd A, 2018 ⁵⁷³	UK	others	71	31.9	100	33.7	/	/	/	/
Khezri SS, 2018 ⁵⁷⁴	Iran	others	39	43.7	82.05	32.1	/	/	/	/
Engel S, 2018 ⁵⁷⁵	Denmark	others	60	38.4	66.67	31.8	/	/	/	/
Bendtsen LQ, 2018 ⁵⁷⁶	Denmark	others	80	44	86.25	31.2	/	/	/	/
Jaacks LM, 2018 ⁵⁷⁷	USA	diet	20	51.4	73.3		/	/	/	/
Kempf K, 2018 ⁵⁷⁸	Germany	others	180	45	55	33.2	/	/	/	/
Mraovic T, 2018 ⁵⁷⁹	Serbia	diet	97	32	100	30.14	/	/	/	/
Saito S, 2017 ⁵⁸⁰	Japan	others	114	52	21.05	26.9	/	/	/	/
Aoe S, 2017 ⁵⁸¹	Japan	others	98		0	27.6	/	/	/	/
Gokulakrishnan K , 2017 ⁵⁸²	India	lifestyle	150	44.5	39.4	28	/	/	/	/
Mousa A, 2017 ⁵⁸³	Australia	others	54	31.9	35.19	30.9	/	/	/	/
Saslow LR, 2017 ⁵⁸⁴	USA	diet + lifestyle	25	55.7	68		/	/	/	/
Schauer PR, 2017 ⁵⁸⁵	USA	surgery +	134	49	66	37	/	/	/	0.70%

medicine										
Paquette M, 2017 ⁵⁸⁶	Canada	others	41	59	56.1	31	/	/	/	/
Taghizadeh M, 2017 ⁵⁸⁷	Iran	others	50	33.7	100	32.4	/	/	/	/
Melchart D, 2017 ⁵⁸⁸	Germany	others	166	50.6	74.1	31.7	/	/	/	/
Blædel T, 2016 ⁵⁸⁹	Denmark	others	21	32.9	0	29.3	/	/	/	/
Alqurashi RM, 2016 ⁵⁹⁰	UK	others	23	46	0	27.6	/	/	/	/
O'Neil PM, 2016 ⁵⁹¹	USA	others	563		71		/	/	/	/
Kim H, 2016 ⁵⁹²	Japan	others	139	81.2	100	25.1	/	/	/	/
Tovar J, 2016 ⁵⁹³	Sweden	diet	47		74.47	27.8	/	/	/	/
Madjd A, 2016 ⁵⁹⁴	UK	others	80	33.61	100	32.16	/	/	/	/
Li X, 2016 ⁵⁹⁵	China	others	298	59.5	47.99	26.76	/	/	/	/
Jamal SN, 2016 ⁵⁹⁶	Malaysia	lifestyle	194	40.5	72.7	32.4	/	/	/	/
Wolf E, 2016 ⁵⁹⁷	Germany	others	79	43	63.83	48.4	/	/	/	/
Kong Z, 2016 ⁵⁹⁸	China	exercise	26	21	100	25.7	/	/	/	/
Most J, 2016 ⁵⁹⁹	Netherlands	others	38	38	47.37	29.7	/	/	/	/
Welsh P, 2016 ⁶⁰⁰	UK	others	151	52.5	44.37	30.5	/	/	/	/

Järvi A, 2016 ⁶⁰¹	Sweden	others	62		0	31.8	/	/	/	/
Weiland A, 2016 ⁶⁰²	Germany	others	119	62.5	0	30.6	/	/	/	/
Dejgaard TF, 2016 ⁶⁰³	Denmark	medicine	100	48	35	30.1	/	/	/	/
Higashikawa F, 2016 ⁶⁰⁴	japan	others	62	53.6	62.9	27.1	/	/	/	/
Nelson K, 2016 ⁶⁰⁵	Australia	others	10	46.6	40	30.8	/	/	/	/
Madjd A, 2016 ⁶⁰⁶	Iran	others	89	31.99	100	32.09	/	/	/	/
Madjd A, 2015 ⁶⁰⁷	Iran	others	71	31.9	100	33.7	/	/	/	/
Rebello CJ, 2015 ⁶⁰⁸	USA	others	28	54.7	71.43	33.1	/	/	/	/
Perez A, 2015 ⁶⁰⁹	USA	lifestyle + medicine	92	45.1	100	33.3	/	/	/	/
Tapsell LC, 2015 ⁶¹⁰	Australia	lifestyle	377	45	74	32	/	/	/	/
Tripkovic L, 2015 ⁶¹¹	UK	others	10	39.8	0	30.2	/	/	/	/
Chambers ES, 2015 ⁶¹²	UK	others	49	54.4	61.22		/	/	/	/
Liu Y, 2015 ⁶¹³	France	others	52		64.52	31.4	/	/	/	/
Mingrone G, 2015 ⁶¹⁴	Italy	surgery	53		0	44.6	/	/	/	/
Davinelli S, 2015 ⁶¹⁵	Italy	others	42		30.95	28.7	/	/	/	/
Shlisky JD, 2015 ⁶¹⁶	USA	diet	104	33.7	100	29.2	/	/	/	/

Hu T, 2015 ⁶¹⁷	USA	diet	148	46.8	88.5		/	/	/	/
de Barros F, 2015 ⁶¹⁸	Brazil	surgery	50	36.72	92	47.43	/	/	/	/
Austel A, 2015 ⁶¹⁹	Germany	diet	212	52.51	82.08	30.09	/	/	/	/
Ding SA, 2015 ⁶²⁰	USA	surgery	40	51	45	36.5	/	/	/	/
McEvoy CT, 2015 ⁶²¹	Ireland	others	92	56	64.13	31	/	/	/	/
Hosseinpour-Niazi S, 2015 ⁶²²	Iran	others	62	58.1	77.42	27.8	/	/	/	/
Mirtaheri E, 2015 ⁶²³	Iran	others	58	34.8	57.81	33.2	/	/	/	/
Stonehouse W, 2015 ⁶²⁴	Australia	others	28	56.8	0	30	/	/	/	/
Nowotny B, 2015 ⁶²⁵	Germany	others	37	54	54.05	34.7	/	/	/	/
Ivey KL, 2015 ⁶²⁶	Australia	others	156	67	38.46	31	/	/	/	/
Taghizadeh M, 2015 ⁶²⁷	Iran	others	78	36.5	76.92	31.3	/	/	/	/
Nickols-Richardson SM, 2014 ⁶²⁸	USA	diet	60	35.9	100	31	/	/	/	/
Zare R, 2014 ⁶²⁹	Iran	others	88	37.22	100	31.11	/	/	/	/
Sousa N, 2014 ⁶³⁰	Portugal	exercise	48	69.1	0	27.1	/	/	/	/
Hernández-Cordero	Mexico	others	240	33.4	100	31.2	/	/	/	/

S, 2014 ⁶³¹										
Schwander F, 2014 ⁶³²	Switzerland	diet	17	44.1	0	38.8	/	/	/	/
Halperin F, 2014 ⁶³³	USA	surgery	38	51.7	60.52	36.3	/	/	/	/
Choi MS, 2014 ⁶³⁴	korea	others	45	48.68	51.11	25.07	/	/	/	/
Bozzetto L, 2014 ⁶³⁵	Italy	others	38	59	17.78	30	/	/	/	/
Lin PH, 2014 ⁶³⁶	China	others	123	38.21	60.16	28.32	/	/	/	/
Geliebter A, 2014 ⁶³⁷	USA	others	36	33.9	50	32.8	/	/	/	/
Rondanelli M, 2014 ⁶³⁸	Italy	others	55	54.1	54.5	30.7	/	/	/	/
Liu X, 2013 ⁶³⁹	China	diet	49	47.9	100	26.7	/	/	/	/
Kashyap SR, 2013 ⁶⁴⁰	USA	surgery	54	48.4	59.3	36.1	/	/	/	/
Mishra S, 2013 ⁶⁴¹	USA	others	291	45.2	83.16	35	/	/	/	/
Liang Z, 2013 ⁶⁴²	China	surgery	54	51.15	30.69	30.37	/	/	/	/
Munro IA, 2013 ⁶⁴³	Australia	others	39	46.13	76.92	32.42	/	/	/	/
de Bock M, 2013 ⁶⁴⁴	New Zealand	others	45	46.4	0	28	/	/	/	/
Cho SH, 2013 ⁶⁴⁵	korea	others	53	42.44	84.91	27.55	/	/	/	/
Azadbakht L, 2013 ⁶⁴⁶	Iran	diet	60	42.1	100	27	/	/	/	/

Salehpour A, 2012 ⁶⁴⁷	Iran	others	85	37	100	29.8	/	/	/	/
Buchowski MS, 2012 ⁶⁴⁸	USA	diet	40	30.3	100	32	/	/	/	/
Munro IA, 2012 ⁶⁴⁹	Australia	others	32	41.3	81.25	32.8	/	/	/	/
Thies F, 2012 ⁶⁵⁰	UK	others	225	51.1	60.44	26.6	/	/	/	/
Rizkalla SW, 2012 ⁶⁵¹	France	diet	13	45	38.46	31.86	/	/	/	/
Tovar J, 2012 ⁶⁵²	Sweden	diet	44	63.3	81.82	28.5	/	/	/	/
Taniguchi-Fukatsu A, 2012 ⁶⁵³	Japan	others	11	45.2	36.36	27.6	/	/	/	/
Krebs JD, 2012 ⁶⁵⁴	New Zealand	diet	419	58	60	36.6	/	/	/	/
Gargari BP, 2011 ⁶⁵⁵	Iran	others	48	58.2	0	28.6	/	/	/	/
Fidler MC, 2011 ⁶⁵⁶	USA	medicine	3179	43.8	79.8	36.9	/	/	/	/
Khoo J, 2011 ⁶⁵⁷	Australia	diet	31	59.7	0	35.3	/	/	/	/
Derosa G, 2011 ⁶⁵⁸	Italy	medicine	246	52	50	33.1	/	/	/	/
Søvik TT, 2011 ⁶⁵⁹	Sweden Norway	surgery	60	35.6	70	55	/	/	/	/
Shah M, 2011 ⁶⁶⁰	USA	exercise	33	49.7	90.9	41.9	/	/	/	/

Tanaka T, 2011 ⁶⁶¹	Japan	others	117	54.2	49.57	30.4	/	/	/	/
Te Morenga LA , 2011 ⁶⁶²	New Zealand	diet	83	41.9	100	33.9	/	/	/	/
Cho JK, 2011 ⁶⁶³	korea	exercise	35	45.4	100	25.6	/	/	/	/
Kreider RB, 2011 ⁶⁶⁴	USA	diet + exercise	90	41.4	100	33.5	/	/	/	/
Harvie MN, 2011 ⁶⁶⁵	UK	diet	107	40.0	100	30.6	/	/	/	/
Njike VY, 2011 ⁶⁶⁶	USA	others	116	52.2	84.48	30.3	/	/	/	/
Choquette S, 2011 ⁶⁶⁷	Canada	others	79	58.7	100	29.9	/	/	/	/
Larsen RN, 2011 ⁶⁶⁸	Australia	diet	99	59.2	48.48		/	/	/	/
Frank I, 2011 ⁶⁶⁹	Switzerland	exercise	26	33	76.92	31.3	/	/	/	/
Llaneza P, 2011 ⁶⁷⁰	Spain	others	87	56.7	100	35	/	/	/	/
DeFina LF, 2011 ⁶⁷¹	USA	others	128	46.3	68.75	32.6	/	/	/	/
Sieverdes JC, 2011 ⁶⁷²	USA	others	164	46.8	80.5	33.3	/	/	/	/
Raben A, 2011 ⁶⁷³	Denmark	others	23	35.4	82.61	28.2	/	/	/	/
Bladbjerg EM, 2010 ⁶⁷⁴	Denmark	diet	131	28.2	58	31.5	/	/	/	/
Li S, 2010 ⁶⁷⁵	China	others	120	31	0	24.5	/	/	/	/

Ilanne-Parikka P , 2010 ⁶⁷⁶	Finland	exercise	486	55.4	66.7	31.2	/	/	/	/
Beck EJ, 2010 ⁶⁷⁷	Australia	others	56	37.4	100	29.3	/	/	/	/
Hodgson JM, 2010 ⁶⁷⁸	Australia	others	74	57.9	64.86	30.6	/	/	/	/
Michishita T, 2010 ⁶⁷⁹	Japan	others	41	37.6	53.66	25.7	/	/	/	/
Blumenthal JA, 2010 ⁶⁸⁰	USA	diet + exercise	144	52	67	33.1	/	/	/	/
Larson-Meyer DE , 2010 ⁶⁸¹	USA	diet + exercise	35	39	55.56	27.8	/	/	/	/
Elhayany A, 2010 ⁶⁸²	Israel	diet	179	55	48	31.4	/	/	/	/
Sluijs I, 2010 ⁶⁸³	Netherlands	others	346	58.4	51.7	27.9	/	/	/	/
Rizvi ZA, 2024 ⁶⁸⁴	Pakistan	diet	90	48.8	37.78	29.38	/	/	/	/
Horváth J, 2024 ⁶⁸⁵	Hungary	exercise	40	57.81	72.5	42.74	/	/	/	/
Nemati M, 2024 ⁶⁸⁶	Iran	others	68	27	0	32.6	/	/	/	/
AlMalki SM, 2024 ⁶⁸⁷	Saudi Arabia	others	93	30.3	69.89	30.8	/	/	/	/

Suder A, 2024 ⁶⁸⁸	Poland	diet + exercise	44	34.7	0	32	/	/	/	/
Amiri P, 2024 ⁶⁸⁹	Iran	others	50	39.12	50	33.56	/	/	/	/
Rodrigo-Carbó C , 2024 ⁶⁹⁰	Spain	diet	117	57.3	47.86	35.6	/	/	/	/
Stockton MB, 2024 ⁶⁹¹	USA	diet	60	38.3	81.67	33.2	/	/	/	/
Wang Y, 2024 ⁶⁹²	China	exercise	38	22	100	28.7	/	/	/	/
Ostadrahimi A, 2024 ⁶⁹³	Iran	others	56	37.75	60.71	34.89	/	/	/	/
Turner-McGrievy GM, 2024 ⁶⁹⁴	USA	diet	159	48.3	79	36.9	/	/	/	/
Delfan M, 2024 ⁶⁹⁵	Iran	others	44		0	32	/	/	/	/
Pammer A, 2024 ⁶⁹⁶	Austria	diet	41	63	43.9	34	/	/	/	/
Duan Y, 2024 ⁶⁹⁷	China	exercise	36	42.7	0	31.1	/	/	/	/
Rolland C, 2009 ⁶⁹⁸	UK	diet	72	41.3	84.72	43.82	/	/	/	/
Foster GD, 2009 ⁶⁹⁹	USA	others	69	52.2	71.01	39	/	/	/	/
Tsai Ch H, 2009 ⁷⁰⁰	Taiwan	diet	120	43.2	79.17	32.4	/	/	/	/
Fontbonne A, 2009 ⁷⁰¹	France	medicine	101	50.7	66.34	34.6	/	/	/	/

Shikany JM, 2009 ⁷⁰²	USA	diet	24	34.5	0	27.8	/	/	/	/
Frisch S, 2009 ⁷⁰³	Germany	others	200	47	69	33.7	/	/	/	/
Nieman DC, 2009 ⁷⁰⁴	USA	others	76		63.16		/	/	/	/
Lin WY, 2009 ⁷⁰⁵	Taiwan	diet	132	33.6	65.9	34.2	/	/	/	/
Arsenault BJ, 2009 ⁷⁰⁶	Canada	exercise	349	57.3	100	32	/	/	/	/
Brochu M, 2009 ⁷⁰⁷	Canada	exercise	128	57.7	100	32.4	/	/	/	/
Aasheim ET, 2009 ⁷⁰⁸	Sweden Norway	surgery	60	35	70	55	/	/	/	/
Assunção ML, 2009 ⁷⁰⁹	Brazil	others	40	29.8	100	31.1	/	/	/	/
Shah K, 2009 ⁷¹⁰	USA	diet + exercise	18	68.6	72.22		/	/	/	/
Davis NJ, 2009 ⁷¹¹	USA	diet	105	54	78.1	36	/	/	/	/
Sacks FM, 2009 ⁷¹²	USA	diet	811	51	64	33	/	/	/	/
Digenio AG, 2009 ⁷¹³	USA	lifestyle	376	44	86.7	34.4	/	/	/	/
Kirk E, 2009 ⁷¹⁴	USA	diet	22	43.6	81.82	36.5	/	/	/	/
Hursel R, 2009 ⁷¹⁵	Netherlands	others	80	44	55	29.6	/	/	/	/
Andersson K, 2009 ⁷¹⁶	Sweden	lifestyle	126	49	79.37	37.4	/	/	/	/

Layman DK, 2009 ⁷¹⁷	USA	diet	130	45.4	55.38	32.6	/	/	/	/
Kim JY, 2008 ⁷¹⁸	korea	diet	47		100	27.42	/	/	/	/
Lasker DA, 2008 ⁷¹⁹	USA	diet	50	33.6	0	47	/	/	/	/
St-Onge MP, 2008 ⁷²⁰	USA	others	31	37	90.3	29.7	/	/	/	/
Hibi M, 2008 ⁷²¹	Japan	others	14	40	42.86	27.7	/	/	/	/
Treyzon L, 2008 ⁷²²	USA	diet	87	49.4	61	33.238	/	/	/	/
Volpe SL, 2008 ⁷²³	USA	diet + exercise	90	44.2	51.11	30.5	/	/	/	/
Morgan LM, 2009 ⁷²⁴	UK	others	293	40.3	73	31.7	/	/	/	/
Lindqvist HM, 2009 ⁷²⁵	Sweden	others	35	47.8	0	28.3	/	/	/	/
Shai I, 2008 ⁷²⁶	Israel	diet	322	52	14	31	/	/	/	/
Nakou E, 2008 ⁷²⁷	Greece	medicine	54	44	79.63	40	/	/	/	/
Pierce GL, 2008 ⁷²⁸	USA	others	40	46.5	40		/	/	/	/
Miyashita M, 2008 ⁷²⁹	Japan	others	8	26.5	0	28.9	/	/	/	/
Arciero PJ, 2008 ⁷³⁰	USA	others	24	47	62.5	32.2	/	/	/	/
Wycherley TP, 2008 ⁷³¹	Australia	exercise	29	52.4	44.8	34.2	/	/	/	/
Lockwood CM, 2008 ⁷³²	USA	diet	38	32.7	50	27.6	/	/	/	/

Larson-Meyer DE , 2008 ⁷³³	USA	diet + exercise	46	38	58.7	27.8	/	/	/	/
Schjerve IE, 2008 ⁷³⁴	Norway	exercise	40	45.9	80	36	/	/	/	/
König D, 2008 ⁷³⁵	Germany	diet	90	47	0	31.5	/	/	/	/
Borges RL, 2007 ⁷³⁶	Brazil	others	24	47.4	100	35.7	/	/	/	/
Mutungi G, 2008 ⁷³⁷	USA	diet	28		0		/	/	/	/
Jensen L, 2008 ⁷³⁸	Denmark	diet	44		100	27.5	/	/	/	/
Salas-Salvadó J, 2008 ⁷³⁹	Spain	others	166	47.9	78.3	31.2	/	/	/	/
Burton FL, 2008 ⁷⁴⁰	UK	others	13	40	0	31.1	/	/	/	/
Karandish M, 2009 ⁷⁴¹	Iran	others	44	25	100	28.3	/	/	/	/
Burke LE, 2007 ⁷⁴²	USA	diet	176	44.08	86.93	34.02	/	/	/	/
Bertéus Forslund H , 2008 ⁷⁴³	Sweden	others	140	39.4	74.29	38.4	/	/	/	/
Meckling KA, 2007 ⁷⁴⁴	Canada	diet + exercise	60	43	100	30	/	/	/	/
de Rougemont A , 2007 ⁷⁴⁵	France	diet	38	38.4	50	27.3	/	/	/	/

Liao FH, 2007 ⁷⁴⁶	China	diet	30	33.4	80	29.8	/	/	/	/
Rave K, 2007 ⁷⁴⁷	Germany	diet	31	51	58.06	33.9	/	/	/	/
Sahin M, 2007 ⁷⁴⁸	Turkey	medicine	16	53.5	68.75	35.7	/	/	/	/
Thomas TR, 2007 ⁷⁴⁹	USA	others	22	32.6	54.55	26.6	/	/	/	/
Ebbeling CB, 2007 ⁷⁵⁰	USA	diet	73	27.6	79		/	/	/	/
Steck SE, 2007 ⁷⁵¹	USA	others	48	35.1	73	32.7	/	/	/	/
Rock CL, 2007 ⁷⁵²	USA	others	70	41.1	100	34	/	/	/	/
Brunerova L, 2007 ⁷⁵³	Czech Republic	diet	58	53.1	0	33.7	/	/	/	/
Maki KC, 2007 ⁷⁵⁴	USA	diet	86	49.7	67.4	31.9	/	/	/	/
Gardner CD, 2007 ⁷⁵⁵	USA	diet	311	41	100	32	/	/	/	/
Lindqvist H, 2007 ⁷⁵⁶	Sweden	others	13	50.5	0	32.6	/	/	/	/
Aubertin-Leheudre M, 2007 ⁷⁵⁷	Canada	others	20	58	100	30	/	/	/	/
Major GC, 2007 ⁷⁵⁸	Canada	others	63	42.6	100	31.2	/	/	/	/
Vincent HK, 2006 ⁷⁵⁹	USA	others	23	24.5	0	33.3	/	/	/	/
Bougoulia M, 2006 ⁷⁶⁰	Greece	medicine	71	36.7	100	37.9	/	/	/	/

Wood RJ, 2007 ⁷⁶¹	USA	diet	29		0	29.7	/	/	/	/
Burke LE, 2006 ⁷⁶²	USA	others	182	44.1	87.4	34.08	/	/	/	/
Vincent HK, 2006 ⁷⁶³	USA	exercise	29	68.1	0	29.7	/	/	/	/
McLaughlin T, 2006 ⁷⁶⁴	USA	diet	57	51	57.89	32.7	/	/	/	/
Anderson JW, 2006 ⁷⁶⁵	USA	medicine	292		0		/	/	/	/
Fenkci S, 2006 ⁷⁶⁶	Turkey	exercise	51	43.2	100	35.27	/	/	/	/
Kuo CS, 2006 ⁷⁶⁷	China	medicine	60		100		/	/	/	/
Nestel P, 2007 ⁷⁶⁸	Australia	others	25	57	44	30.3	/	/	/	/
Satoh N, 2006 ⁷⁶⁹	Japan	medicine	30	46.2	53.33	32.8	/	/	/	/
Turker I, 2006 ⁷⁷⁰	Turkey	diet + medicine	27	45.9	100	36	/	/	/	/
Ahn CW, 2006 ⁷⁷¹	korea	medicine	24	53.7	50	28.2	/	/	/	/
Hackman RM, 2006 ⁷⁷²	USA	others	61	36.9	100	32	/	/	/	/
Krebs JD, 2006 ⁷⁷³	UK	diet	93	44.7	100	35	/	/	/	/
Wood RJ, 2006 ⁷⁷⁴	USA	diet	29		0		/	/	/	/
Löfgren P, 2005 ⁷⁷⁵	Sweden	diet	40	35.7	100	36.9	/	/	/	/

	UK, The										
	Netherlands,										
	France,										
Petersen M, 2006 ⁷⁷⁶	Spain, Czech Republic,	diet	648	37	75.1	35.6	/	/	/	/	/
	Sweden and Denmark										
Wang TF, 2005 ⁷⁷⁷	China	medicine	60		100	27.1	/	/	/	/	/
Robitaille J, 2005 ⁷⁷⁸	Canada	others	34	38.3	100	29.1	/	/	/	/	/
Noakes M, 2005 ⁷⁷⁹	Australia	diet	100	49	100	32	/	/	/	/	/
Poston WS, 2005 ⁷⁸⁰	USA	others	100	40.6	87	31.5	/	/	/	/	/
Ebbeling CB, 2005 ⁷⁸¹	USA	diet	23	28.5	95.65		/	/	/	/	/
Frank LL, 2005 ⁷⁸²	USA	exercise	173	60.7	100	30.4	/	/	/	/	/
Berne C, 2005 ⁷⁸³	Sweden	medicine	220	59.1	45	32.8	/	/	/	/	/
Gaullier JM, 2005 ⁷⁸⁴	Norway	others	134	46.3	82.1	28	/	/	/	/	/
Zemel MB, 2005 ⁷⁸⁵	USA	others	34	40	79.4	32.6	/	/	/	/	/
Patalay M, 2005 ⁷⁸⁶	USA	others	30		100	29.3	/	/	/	/	/

Pieterse Z, 2005 ⁷⁸⁷	South Africa	diet	61	40.8	78.69	31.9	/	/	/	/
Derosa G, 2005 ⁷⁸⁸	Italy	medicine	115	51	51.3	33.3	/	/	/	/
Maeda H, 2005 ⁷⁸⁹	Japan	diet	76	58.6	63.16	28.8	/	/	/	/
Pereira MA, 2004 ⁷⁹⁰	USA	diet	39	30.7	76.9	33.2	/	/	/	/
Aude YW, 2004 ⁷⁹¹	USA	diet	54	45	51.85	35.2	/	/	/	/
Brinkworth GD , 2004 ⁷⁹²	Australia	diet	38	61.8	60.53	33.5	/	/	/	/
Melanson KJ, 2004 ⁷⁹³	USA	exercise	90	42.6	85.56	31.5	/	/	/	/
Yesilbursa D, 2005 ⁷⁹⁴	Turkey	medicine	36	49.7	80.56	36.1	/	/	/	/
Seshadri P, 2004 ⁷⁹⁵	USA	diet	78	55	0	44	/	/	/	/
Miyashita Y, 2004 ⁷⁹⁶	Japan	diet	22	52.4	27.27	27	/	/	/	/
Flechtner-Mors M , 2004 ⁷⁹⁷	Germany	others	40	48.17	67.5	34.27	/	/	/	/
Mhurchu CN, 2004 ⁷⁹⁸	New Zealand	others	250	48	82	35.5	/	/	/	/
Esposito K, 2004 ⁷⁹⁹	Italy	lifestyle	110	43.3	0	36.6	/	/	/	/
Carels RA, 2004 ⁸⁰⁰	USA	lifestyle	44	54.7	100	36.4	/	/	/	/

Stern L, 2004 ⁸⁰¹	USA	diet	87	54	82.5	42.9	/	/	/	/
Brinkworth GD, 2004 ⁸⁰²	Australia	diet	43	50.2	77.59	34	/	/	/	/
Albert SG, 2004 ⁸⁰³	USA	medicine	59	36.9	74.58	36.9	/	/	/	/
Rachmani R, 2004 ⁸⁰⁴	Israel	medicine	56	52.9	0	31.1	/	/	/	/
Poston WS, 2003 ⁸⁰⁵	USA	lifestyle + medicine	108	43	100	36.9	/	/	/	/
Bloch KV, 2003 ⁸⁰⁶	Brazil	medicine	204	55.8	0	36	/	/	/	/
Lovejoy JC, 2003 ⁸⁰⁷	USA	diet	45	36.7	0	30.8	/	/	/	/
Ash S, 2003 ⁸⁰⁸	Australia	diet	51	54	0	31.7	/	/	/	/
Foster GD, 2003 ⁸⁰⁹	USA	diet	63	44.1	68.25	39	/	/	/	/
Melanson K, 2003 ⁸¹⁰	USA	others	61	43.4	100	32.1	/	/	/	/
Allison DB, 2003 ⁸¹¹	USA	others	100	50.2	80	34.3	/	/	/	/
Esposito K, 2003 ⁸¹²	Italy	lifestyle	120	34.6	100	34.9	/	/	/	/
Lantz H, 2003 ⁸¹³	Sweden	diet	117	41.7	74.25	39.5	/	/	/	/
James AP, 2003 ⁸¹⁴	Australia	others	22	52.2	0	35	/	/	/	/
Hirose K, 2002 ⁸¹⁵	Japan	others	35	55.2	100	26.9	/	/	/	/

Sharman MJ, 2024 ⁸¹⁶	USA	diet	15	33.2	0	34.3	/	/	/	/
Bakris G, 2002 ⁸¹⁷	USA	medicine	532	52.9	61.09	35.6	/	/	/	/
Hanefeld M, 2002 ⁸¹⁸	Germany	diet	369	56.2	50.9	34.1	/	/	/	/
Dunstan DW, 2002 ⁸¹⁹	Australia	exercise	29	67.3	44.8	32	/	/	/	/
Larsen TM, 2002 ⁸²⁰	Netherlands	medicine	20	36	0	30.9	/	/	/	/
Nieman DC, 2002 ⁸²¹	USA	diet + exercise	91	45.6	100	33.1	/	/	/	/
Anderson JW, 2002 ⁸²²	USA	medicine	327	43.4	85.02	36.3	/	/	/	/
Miles JM, 2002 ⁸²³	USA canada	medicine	504	53.1	48	35.4	/	/	/	/
Kelley DE, 2002 ⁸²⁴	USA	medicine	542	57.9	56	35.7	/	/	/	/
Heilbronn LK, 2002 ⁸²⁵	Australia	diet	45	56.7	51.11	33.2	/	/	/	/
Janssen I, 2002 ⁸²⁶	Canada	diet + exercise	38	37.4	100	33.6	/	/	/	/
Yip I, 2001 ⁸²⁷	USA	diet	57	58.9	0	33	/	/	/	/
Gokcel A, 2001 ⁸²⁸	Turkey	medicine	60	48.11	100	38.35	/	/	/	/
Volpe SL, 2001 ⁸²⁹	Argentina	others	44	42.6	100	32.9	/	/	/	/

Dumont M, 2001 ⁸³⁰	Canada	others	64	46	0	31	/	/	/	/
Boozer CN, 2001 ⁸³¹	USA	others	67	41.1	85.07	32.7	/	/	/	/
Birketvedt GS, 2000 ⁸³²	Sweden	others	53	39.9	100	27.5	/	/	/	/
	Norway									
Richelsen B, 2000 ⁸³³	Denmark	medicine	18	34.9	100	42	/	/	/	/
Halimi S, 2000 ⁸³⁴	France	medicine	129	55	44.19	29.9	/	/	/	/
Wadden TA, 2001 ⁸³⁵	USA	medicine	43	47.2	100	37.3	/	/	/	/
Fujioka K, 2000 ⁸³⁶	USA	diet	175	54.2	46.86	34	/	/	/	/
Ditschuneit HH , 2002 ⁸³⁷	USA	others	73	45.2	79.45	33.6	/	/	/	/
Fogelholm M, 2000 ⁸³⁸	Finland	exercise	74	40	100	34	/	/	/	/
Donnelly JE, 2000 ⁸³⁹	USA	exercise	22	51.5	100	31.23	/	/	/	/
Golay A, 2000 ⁸⁴⁰	Spain	diet	54	43.5	0	38.6	/	/	/	/
Mori TA, 1999 ⁸⁴¹	Australia	others	63	54.1	33.33	31.6	/	/	/	/
Vidgren HM, 1999 ⁸⁴²	Finland	medicine	75	43.2	80	35.5	/	/	/	/
Roger P, 1999 ⁸⁴³	France	medicine	127	55.5	55.9	33	/	/	/	/
Pittler MH, 1999 ⁸⁴⁴	UK	others	30	44	80	26.6	/	/	/	/

Ditschuneit HH , 1999 ⁸⁴⁵	Germany	diet	100	45.7	79	33.4	/	/	/	/
Andersen RE, 1999 ⁸⁴⁶	USA	exercise	40	42.9	100	32.9	/	/	/	/
Davidson MH, 1999 ⁸⁴⁷	USA	medicine	880	43.5	84.2	36.3	/	/	/	/
Charles MA, 1998 ⁸⁴⁸	France	medicine	324	49.5	34	32.5	/	/	/	/
Riddle MC, 1998 ⁸⁴⁹	USA	medicine	132	58	58.62	33	/	/	/	/
Marckmann P, 1998 ⁸⁵⁰	Denmark	diet	36	44	0	35.5	/	/	/	/
Sjöström L, 1998 ⁸⁵¹	Sweden	medicine	683	44.8	82	36	/	/	/	/
Agurs-Collins TD , 1997 ⁸⁵²	USA	exercise	64	61.7	77	34.4	/	/	/	/
Kraemer WJ, 1997 ⁸⁵³	USA	exercise	31	35.4	100	28.6	/	/	/	/
Rössner S, 1997 ⁸⁵⁴	Norway	diet	93	41	67.74	38.7	/	/	/	/
Pontiroli AE, 1996 ⁸⁵⁵	Italy	medicine	30	56.8	66.67	33.3	/	/	/	/
Golay A, 1996 ⁸⁵⁶	Switzerland	diet	43	43	79.07	40	/	/	/	/
Pascale RW, 1995 ⁸⁵⁷	USA	diet	90	49.6	100	36.1	/	/	/	/
DeFronzo RA, 1995 ⁸⁵⁸	USA	medicine	721	54	69.35	29.4	/	/	/	/
O'Kane M, 1994 ⁸⁵⁹	UK	medicine	19	57.2	68.42	36.3	/	/	/	/

Giugliano D, 1993 ⁸⁶⁰	Italy	medicine	50	60.4	62	32.9	/	/	/	/
Puddey IB, 1992 ⁸⁶¹	Australia	others	86	44.3	0	29.5	/	/	/	/
Wolever TM, 1992 ⁸⁶²	Canada	diet	6	63	50	32.1	/	/	/	/
Golay A, 1992 ⁸⁶³	Switzerland	others	14	62	0	29	/	/	/	/
Jalkanen L, 1991 ⁸⁶⁴	Finland	others	44	49	0		/	/	/	/
Nieman DC, 1990 ⁸⁶⁵	USA	diet + exercise	21	37.5	100	29.9	/	/	/	/
Lalor BC, 1990 ⁸⁶⁶	UK	medicine	19	/	0	/	/	/	/	/

Supplementary Table 3 The comparisons of baseline blood lipid levels between subgroups

Subgroup	Z	P	Subgroup	Z	P	Subgroup	Z	P	Subgroup	Z	P
TG			TC			HDL-C			LDL-C		
Age<65 years old vs. Age≥65years old	-0.130	0.897	Age<65 years old vs. Age≥65years old	-0.411	0.681	Age<65 years old vs. Age≥65years old	-0.300	0.764	Age<65 years old vs. Age≥65years old	-1.011	0.312
BMI<30 kg/m ² vs. BMI≥30 kg/m ²	-3.222	0.001*	BMI<30 kg/m ² vs. BMI≥30 kg/m ²	-0.326	0.744	BMI<30 kg/m ² vs. BMI≥30 kg/m ²	-1.008	0.313	BMI<30 kg/m ² vs. BMI≥30 kg/m ²	-1.609	0.108
Male predominant vs. female	-1.942	0.052	Male predominant vs. female	-1.812	0.070	Male predominant vs. female	-2.736	0.006*	Male predominant vs. female	-0.449	0.653
Hypertension vs. non-hypertension	-2.232	0.026*	Hypertension vs. non-hypertension	-0.690	0.490	Hypertension vs. non-hypertension	-0.027	0.978	Hypertension vs. non-hypertension	-1.014	0.31
FBG >110mg/dL vs. FBG ≤110mg/dL	-2.540	0.011*	FBG >110mg/dL vs. FBG ≤110mg/dL	-0.180	0.857	FBG >110mg/dL vs. FBG ≤110mg/dL	-2.583	0.100	FBG >110mg/dL vs. FBG ≤110mg/dL	-1.888	0.059
HbA1c ≥6.5% vs. HbA1c <6.5%	-4.667	<0.001*	HbA1c ≥6.5% vs. HbA1c <6.5%	-0.418	0.676	HbA1c ≥6.5% vs. HbA1c <6.5%	-1.691	0.091	HbA1c ≥6.5% vs. HbA1c <6.5%	-0.964	0.335

DM combined vs. DM uncombined	-5.907	<0.001*	DM combined vs. DM uncombined	-0.801	0.423	DM combined vs. DM uncombined	-1.425	0.154	DM combined vs. DM uncombined	-0.738	0.460
Monotherapy vs. combination therapy	-1.581	0.114	Monotherapy vs. combination therapy	-1.340	0.180	Monotherapy vs. combination therapy	-0.382	0.702	Monotherapy vs. combination therapy	-0.484	0.629
Diet intervention vs. non-diet intervention	-2.221	0.026*	Diet intervention vs. non-diet intervention	-0.405	0.685	Diet intervention vs. non-diet intervention	-1.232	0.218	Diet intervention vs. non-diet intervention	-0.245	0.807
Exercise intervention vs. non-exercise intervention	-2.028	0.043*	Exercise intervention vs. non-exercise intervention	-0.304	0.761	Exercise intervention vs. non-exercise intervention	-1.160	0.246	Exercise intervention vs. non-exercise intervention	-0.207	0.836
Lifestyle intervention vs. non-lifestyle intervention	-2.143	0.032*	Lifestyle intervention vs non-lifestyle intervention	-0.979	0.328	Lifestyle intervention vs. non-lifestyle intervention	-0.081	0.936	Lifestyle intervention vs. non-lifestyle intervention	-0.800	0.424
Medicine intervention vs.	-4.500	<0.001*	Medicine intervention vs.	-2.518	0.012*	Medicine intervention vs.	-1.568	0.117	Medicine intervention vs.	-2.614	0.009*

non-medicine				non-medicine				non-medicine				non-medicine			
intervention				intervention				intervention				intervention			
Surgery				Surgery				Surgery				Surgery			
intervention	vs.			intervention	vs.			intervention	vs.			intervention	vs.		
non-surgery		-1.754	0.079	non-surgery		-0.378	0.706	non-surgery		-0.647	0.537	non-surgery		-0.860	0.390
intervention				intervention				intervention				intervention			

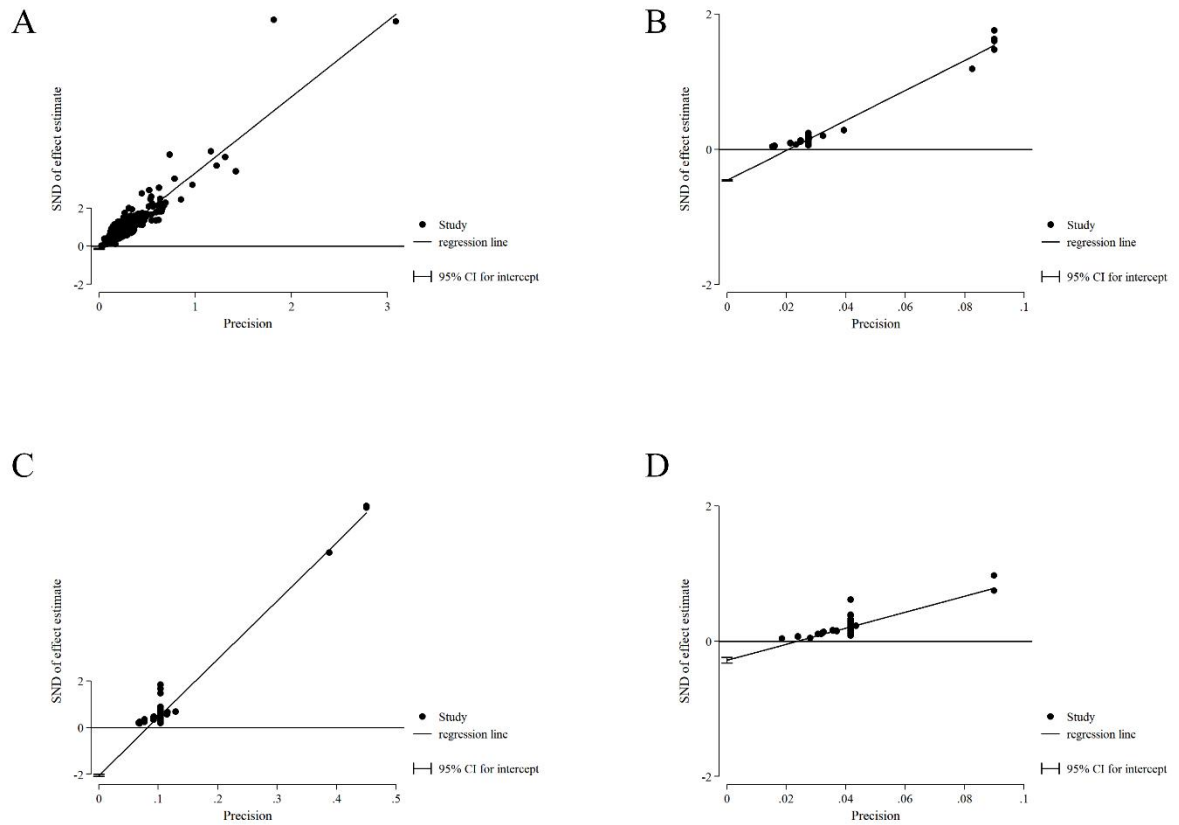
TG: triglycerides; TC: total cholesterol; HDL-C: high-density lipoprotein cholesterol; LDL-C: low-density lipoprotein cholesterol;
 DM: diabetes mellites; BMI: body mass index; FBG: fasting blood glucose, HbA1c: glycated hemoglobin A1c.*: *P*<0.05.

Supplementary Table 4 Subgroup analysis of longitudinal changes in lipid profile by therapeutic regimen in overweight and obese populations

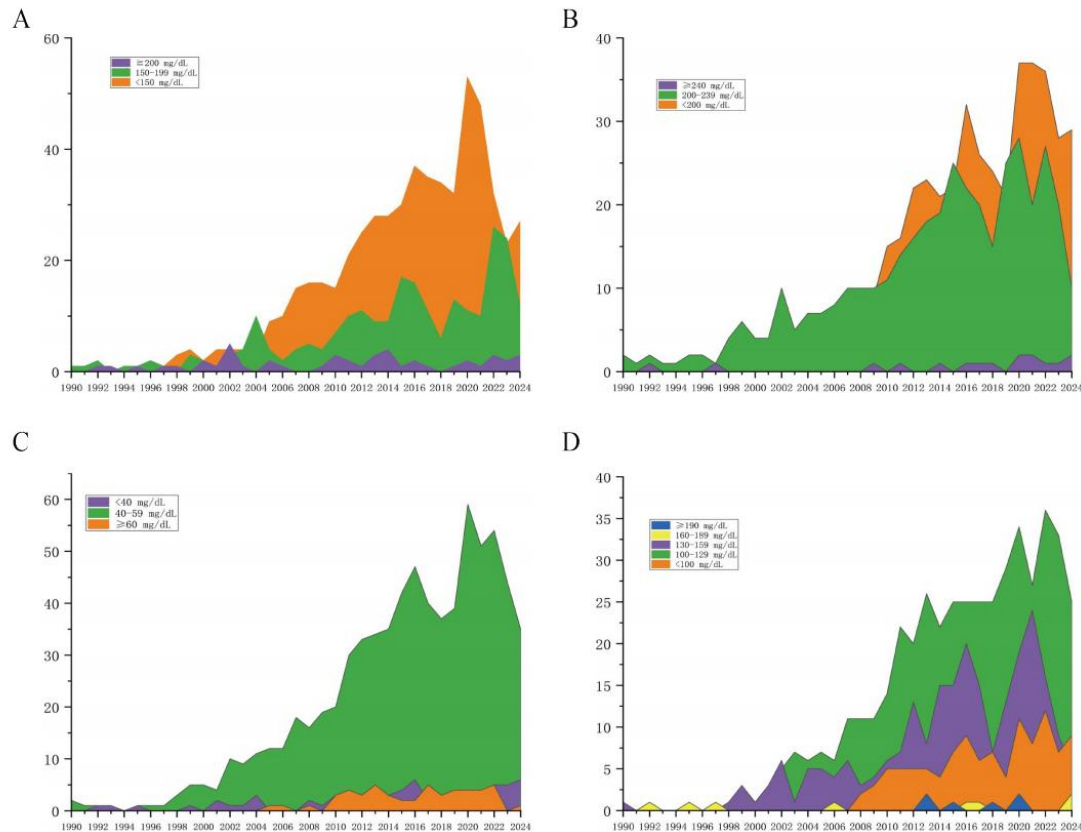
Item	Subgroup	Rs	P_{adj}	I^2	Z	P
ΔTG	Monotherapy	0.004	0.939	100.0%		
	Combination therapy	-0.238	0.169	100.0%	-2.077	0.058
	With diet	0.059	0.417	100.0%		
	Without diet	-0.012	0.803	98.70%	-3.143	0.002*
	With exercise	-0.159	0.094	98%		
	Without exercise	0.057	0.182	95%	-1.774	0.076
	With lifestyle	0.060	0.812	100%		
	Without lifestyle	0.019	0.630	99%	-1.408	0.159
	With medicine	0.168	0.213	99.90%		
	Without medicine	0.018	0.660	98.80%	-1.162	0.245
	With surgery	-0.006	0.976	98.10%		
	Without surgery	0.036	0.376	98.10%	-6.301	<0.001*
	Monotherapy	-0.083	0.14	100.0%		
	Combination therapy	0.129	0.459	100.0%	-1.705	0.088
ΔTC	With diet	0.059	0.428	98.70%		
	Without diet	-0.074	0.120	-3.47%	-2.756	0.006*
	With exercise	-0.120	0.214	95.80%		
	Without exercise	-0.002	0.958	98.80%	-1.044	0.296
	With lifestyle	0.159	0.543	99.30%		
	Without lifestyle	-0.024	0.549	98.60%	-1.349	0.132
	With medicine	-0.055	0.699	99.40%		
	Without medicine	-0.028	0.495	98.50%	-0.600	0.549
	With surgery	-0.183	0.343	97.70%		
	Without surgery	-0.008	0.851	98.70%	-5.322	<0.001*
$\Delta HDL-C$	Monotherapy	-0.016	0.777	100.0%		
	Combination	0.208	0.205	100.0%	-1.302	0.193

ΔLDL-C	therapy					
	With diet	0.056	0.436	98.30%	-3.474	0.001*
	Without diet	0.027	0.562	98.90%		
	With exercise	0.104	0.264	98.50%	-1.651	0.099
	Without exercise	0.030	0.495	98.90%		
	With lifestyle	-0.228	0.379	99.00%	-1.508	0.132
	Without lifestyle	0.055	0.171	98.80%		
	With medicine	-0.217	0.118	99.60%	-0.177	0.860
	Without medicine	0.062	0.128	99.30%		
	With surgery	0.270	0.149	95.00%	-4.804	<0.001*
	Without surgery	0.058	0.148	99.00%		
	Monotherapy	-0.048	0.399	99.9%	-1.078	0.281
	Combination	0.101	0.558	100.0%		
	therapy					
	With diet	0.040	0.596	98.30%	-1.233	0.218
	Without diet	-0.081	0.093	98.40%		
	With exercise	0.031	0.749	97%	-1.670	0.095
	Without exercise	-0.049	0.273	99%		
	With lifestyle	0.641	0.013	100%	-1.188	0.235
	Without lifestyle	-0.050	0.221	97%		
	With medicine	-0.026	0.858	98.50%	-0.744	0.457
	Without medicine	-0.049	0.250	100%		
	With surgery	-0.322	0.083	99%	-5.287	<0.001*
	Without surgery	-0.012	0.766	98%		

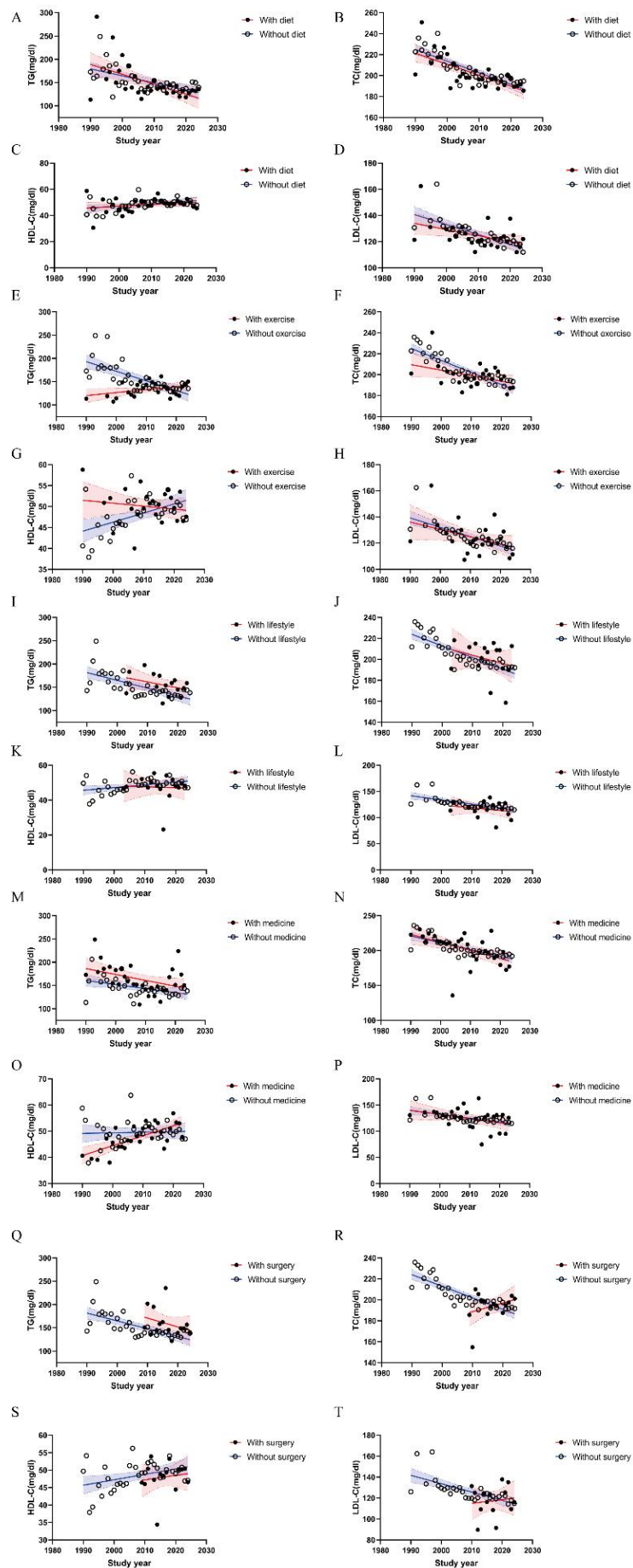
TG: triglycerides; TC: total cholesterol; HDL-C: high-density lipoprotein cholesterol; LDL-C: low-density lipoprotein cholesterol. *: $P<0.05$.



Supplementary Figure 1 The egger's test for publication bias. A: The egger's test of triglycerides; B: The egger's test of total cholesterol; C: The egger's test of high-density lipoprotein cholesterol; D: The egger's test of low-density lipoprotein cholesterol. TG: Triglycerides; TC: Total cholesterol; HDL-C: High-density lipoprotein cholesterol; LDL-C: Low-density lipoprotein cholesterol.



Supplementary Figure 2 Trial number of different baseline triglycerides, total cholesterol, high-density lipoprotein cholesterol, and low-density lipoprotein cholesterol categories for patients with overweight or obesity in randomized placebo-controlled trials from 1990 to 2024. A-D: Trial numbers of different baseline triglycerides (A), total cholesterol (B), high-density lipoprotein cholesterol (C), and low-density lipoprotein cholesterol (D) categories. TG: Triglycerides; TC: Total cholesterol; HDL-C: High-density lipoprotein cholesterol; LDL-C: Low-density lipoprotein cholesterol.



Supplementary Figure 3 Subgroup analysis of trends in baseline triglycerides, total cholesterol, high-density lipoprotein cholesterol, and low-density lipoprotein cholesterol categorized by therapeutic regimen.

A-D: Baseline triglycerides (TG; A), total cholesterol (TC; B), high-density lipoprotein cholesterol (HDL-C; C), and low-density lipoprotein cholesterol (LDL-C; D) trends categorized by intervention with and without diet; E-H: Baseline TG (E), TC (F), HDL-C (G), and LDL-C (H) trends categorized by intervention with and without exercise; I-L: Baseline TG (I), TC (J), HDL-C (K), and LDL-C (L) trends categorized by intervention with and without lifestyle; M-P: Baseline TG (M), TC (N), HDL-C (O), and LDL-C (P) trends categorized by intervention with and without medicine; Q-T: Baseline TG (Q), TC (R), HDL-C (S), and LDL-C (T) trends categorized by intervention with and without surgery. TG: triglycerides; TC: total cholesterol; HDL-C: high-density lipoprotein cholesterol; LDL-C: low-density lipoprotein cholesterol.

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