

Supplementary Table 1 Characteristics of instrumental variables for VH

	SNP	EA	OA	Samplesize	SE	β	id.exposure	EAF	p value	R ²	F - statistic
1	rs35287180	A	G	377,277	0.073237	-0.337935	finngen_R9_T2D	0.0560168	3.94E-06	0.012077552	4612.263161
2	rs140095464	A	G	377,277	0.27675	1.28917	finngen_R9_T2D	0.00140154	3.19E-06	0.004652076	1763.314905
3	rs62356114	T	C	377,277	0.0746625	0.344164	finngen_R9_T2D	0.0365799	4.03E-06	0.008348705	3176.275303
4	rs67914330	C	T	377,277	0.0639387	0.294611	finngen_R9_T2D	0.0523772	4.07E-06	0.008616	3278.851998
5	rs9378487	C	T	377,277	0.0879471	-0.418539	finngen_R9_T2D	0.0399932	1.95E-06	0.01345124	5144.009919
6	rs118022964	A	T	377,277	0.0583753	0.274742	finngen_R9_T2D	0.0649537	2.52E-06	0.009168897	3491.206316
7	rs7006620	T	C	377,277	0.0567069	-0.260286	finngen_R9_T2D	0.0906451	4.43E-06	0.011168873	4261.330878
8	rs112398420	T	C	377,277	0.051412	0.23778	finngen_R9_T2D	0.0868016	3.75E-06	0.008963415	3412.25795
9	rs3744588	C	T	377,277	0.0313248	-0.150554	finngen_R9_T2D	0.431948	1.54E-06	0.011123313	4243.752455
10	rs117209342	C	G	377,277	0.308635	-1.44109	finngen_R9_T2D	0.00600063	3.02E-06	0.024773945	9584.024045
11	rs77013778	T	C	377,277	0.116917	-0.561614	finngen_R9_T2D	0.0253035	1.56E-06	0.015558075	5962.43664

SNP, single nucleotide polymorphism; EA, effect allele; OA, other allele; EAF, effect allele frequency; SE, standard error; VH, viral hepatitis.

Supplementary Table 2 Characteristics of instrumental variables for CHB

	SNP	EA	OA	Samplesize	SE	β	id.exposure	EAF	p value	R ²	F - statistic
1	rs11889341	C	T	212453	0.041316	-0.21349	bbj-a-99	0.306142	2.37E-07	0.019363628	4195.053505226
2	rs1718789	T	G	212453	0.089845	0.456981	bbj-a-99	0.049933	3.65E-07	0.019813931	4294.58202415
3	rs6914573	A	T	212453	0.050599	0.579461	bbj-a-99	0.754931	2.30E-30	0.124243609	30140.43533991
4	rs16870693	C	A	212453	0.052469	0.3457	bbj-a-99	0.170368	4.44E-11	0.033783316	7428.250180458
5	rs115183117	G	C	212453	0.099443	-0.76187	bbj-a-99	0.046166	1.84E-14	0.051118996	11445.35686708
6	rs77746323	C	T	212453	0.03976	0.516645	bbj-a-99	0.598984	1.32E-38	0.128230513	31249.89015084
7	rs149893379	C	A	212453	0.105466	-0.62179	bbj-a-99	0.038767	3.73E-09	0.028814381	6303.268840338
8	rs78192747	A	T	212453	0.11913	-0.57366	bbj-a-99	0.034388	1.47E-06	0.021854695	4746.791545492
9	rs10814940	C	G	212453	0.064648	0.303951	bbj-a-99	0.104695	2.58E-06	0.017319450	3744.385194729
10	rs11139174	A	G	212453	0.04507	0.224809	bbj-a-99	0.240355	6.10E-07	0.018455305	3994.569000597
11	rs12919083	A	C	212453	0.045117	0.220315	bbj-a-99	0.23608	1.04E-06	0.017507543	3785.774669224
12	rs16953371	C	T	212453	0.052841	0.258305	bbj-a-99	0.162354	1.02E-06	0.018147597	3926.736016218
13	rs2302969	G	A	212453	0.057438	-0.2629	bbj-a-99	0.128256	4.72E-06	0.015454961	3334.963658934

SNP, single nucleotide polymorphism; EA, effect allele; OA, other allele; EAF, effect allele frequency; SE, standard error; CHB, chronic hepatitis B.

Supplementary Table 3 Characteristics of instrumental variables for CHC

	SNP	EA	OA	Samplesize	SE	β	id.exposure	EAF	p value	R ²	F - statistic
1	rs207880	T	G	212453	0.030596	0.144343	bbj-a-101	0.89019	2.38E-06	0.004073297	868.9153229
2	rs9258222	G	A	212453	0.023866	0.117235	bbj-a-101	0.185615	9.01E-07	0.004155157	886.4505373
3	rs3800920	A	T	212453	0.026774	0.125645	bbj-a-101	0.148073	2.70E-06	0.003982893	849.5533505
4	rs144833344	C	T	212453	0.039643	-0.18224	bbj-a-101	0.062106	4.29E-06	0.003868982	825.1616024
5	rs142416119	C	T	212453	0.027052	-0.12532	bbj-a-101	0.164769	3.61E-06	0.004322540	922.3146794
6	rs12781269	C	G	212453	0.025606	-0.12999	bbj-a-101	0.750602	3.84E-07	0.006326341	1352.59435
7	rs111064410	G	C	212453	0.021303	0.099969	bbj-a-101	0.481167	2.70E-06	0.004989791	1065.402281
8	rs111165193	C	A	212453	0.01995	0.095867	bbj-a-101	0.498826	1.54E-06	0.004595254	980.7731789
9	rs767959	G	A	212453	0.020846	0.097764	bbj-a-101	0.530321	2.73E-06	0.004761335	1016.389843

SNP, single nucleotide polymorphism; EA, effect allele; OA, other allele; EAF, effect allele frequency; SE, standard error; CHC, chronic hepatitis C.

Supplementary Table 4 SNPs from GWAS on VH and T2D

	SNP	EA	OA	Exposure (VH)			Outcome (T2D)				
				β	SE	<i>p</i> value	Case	Control	β	SE	<i>p</i> value
1	rs112398420	T	C	0.23778	0.051412	3.75E-06	57,698	308,252	0.00240084	0.0121598	0.843483
2	rs117209342	C	G	-1.44109	0.308635	3.02E-06	57,698	308,252	-0.0321125	0.0445456	0.470977
3	rs118022964	A	T	0.274742	0.0583753	2.52E-06	57,698	308,252	0.0183414	0.0139702	0.189217
4	rs140095464	A	G	1.28917	0.27675	3.19E-06	57,698	308,252	-0.0383642	0.0934185	0.681314
5	rs35287180	A	G	-0.337935	0.073237	3.94E-06	57,698	308,252	0.00906654	0.0149067	0.543043
6	rs3744588	C	T	-0.150554	0.0313248	1.54E-06	57,698	308,252	-0.0151934	0.00693404	0.028442
7	rs62356114	T	C	0.344164	0.0746625	4.03E-06	57,698	308,252	0.00366314	0.0182499	0.840917
8	rs67914330	C	T	0.294611	0.0639387	4.07E-06	57,698	308,252	0.0128447	0.0152339	0.399139
9	rs7006620	T	C	-0.260286	0.0567069	4.43E-06	57,698	308,252	0.0103645	0.0119071	0.384057
10	rs77013778	T	C	-0.561614	0.116917	1.56E-06	57,698	308,252	0.00756106	0.0218375	0.729162
11	rs9378487	C	T	-0.418539	0.0879471	1.95E-06	57,698	308,252	-0.0561985	0.017542	0.001357

SNP, single nucleotide polymorphism; EA, effect allele; OA, other allele; SE, standard error; VH, viral hepatitis; T2D, type 2 diabetes.

