

Supplementary appendix

This appendix formed part of the original submission and has been peer reviewed. We post it as supplied by the authors.

Supplement to: NCD Risk Factor Collaboration (NCD-RisC). Effects of diabetes definition on global surveillance of diabetes prevalence and diagnosis: a pooled analysis of 96 population-based studies with 331 288 participants. *Lancet Diabetes Endocrinol* 2015; published online June 22. [http://dx.doi.org/10.1016/S2213-8587\(15\)00129-1](http://dx.doi.org/10.1016/S2213-8587(15)00129-1).

Webmaterials

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Webtable 1: Population-based surveys with individual-level data

Survey name or citation	Country	Survey year(s)	Participants ≥ 18 years	Mean age (SD)	% Male	Level of representativeness	Rural, urban or both	Biomarkers available	Glucose measurement	HbA _{1c} measurement
Australian Diabetes Obesity and Lifestyle Study (AusDiab)	Australia	1999-2000	11,173	51.6 (14.4)	45.1%	National	Both	FPG, 2hOGTT, HbA _{1c}	Lab	Lab
Australian Diabetes Obesity and Lifestyle Study (AusDiab)	Australia	2004-2005	6,297	56.5 (12.7)	45.3%	National	Both	FPG, 2hOGTT, HbA _{1c}	Lab	Lab
Australian Diabetes Obesity and Lifestyle Study (AusDiab)	Australia	2011-2012	4,481	60.9 (11.2)	44.7%	National	Both	FPG, 2hOGTT, HbA _{1c}	Lab	Lab
North West Adelaide Health Study (NWAHS)	Australia	1999-2003	3,979	50.5 (16.4)	47.5%	Community	Urban	FPG, HbA _{1c}	Lab	Lab
North West Adelaide Health Study (NWAHS)	Australia	2004-2006	3,163	55.1 (15.5)	47.4%	Community	Urban	FPG, HbA _{1c}	Lab	Lab
North West Adelaide Health Study (NWAHS)	Australia	2008-2010	2,420	57.9 (14.3)	47.1%	Community	Urban	FPG, HbA _{1c}	Lab	Lab
The Central America Diabetes Initiative (CAMDI) Survey	Belize	2004-2005	1,306	45.7 (17.4)	38.9%	National	Both	FPG, 2hOGTT	Lab	-
Baependi Heart Study	Brazil	2010-2013	1,233	44.6 (16.5)	40.6%	Community	Rural	FPG, HbA _{1c}	Lab	Lab
China Health and Nutrition Study (CHNS)	China	2009	8,496	50.5 (15.0)	47.0%	National	Both	FPG, HbA _{1c}	Lab	Lab
Hong Kong Cardiovascular Risk Factor Prevalence Study	China (Hong Kong SAR)	1995-1996	2,762	45.9 (12.9)	49.2%	National	Both	FPG, 2hOGTT	Lab	-
The Central America Diabetes Initiative (CAMDI) Survey	Costa Rica	2004	974	45.3 (17.1)	32.9%	Community	Urban	FPG, 2hOGTT	Lab	-
Costa Rican Longevity and Healthy Aging Study (CRELES), Pre-1945 Cohort Wave 1	Costa Rica	2004-2006	2,587	76.2 (10.2)	45.3%	National	Both	FPG, HbA _{1c}	Lab	Lab
Costa Rican Longevity and Healthy Aging Study (CRELES), Pre-1945 Cohort Wave 2	Costa Rica	2006-2008	2,218	77.0 (9.6)	45.5%	National	Both	FPG, HbA _{1c}	Lab	Lab
Young Finns Study (YFS), Rural	Finland	2011	786	42.0 (4.9)	46.3%	National	rural	FPG, HbA _{1c}	Lab	Lab
Young Finns Study (YFS), Urban	Finland	2011	1,121	41.9 (5.1)	44.2%	National	Urban	FPG, HbA _{1c}	Lab	Lab
The Three City Study (3C Study)	France	2008-2010	693	82.3 (4.4)	36.1%	Community	Urban	FPG, HbA _{1c}	Lab	Lab
Population Health Survey in Greenland	Greenland	2005-2010	3,046	44.5 (14.7)	43.9%	National	Both	FPG, 2hOGTT, HbA _{1c}	Lab	Lab
The Central America Diabetes Initiative (CAMDI) Survey	Guatemala	2001-2002	848	40.5 (15.4)	33.6%	Community	Urban	FPG, 2hOGTT	Lab	-
The Central America Diabetes Initiative (CAMDI) Survey	Honduras	2003-2004	1,179	40.6 (15.6)	35.5%	Community	Urban	FPG, 2hOGTT	Lab	-
New Delhi Birth Cohort, Follow-up Phase 1	India	1999-2002	1,434	28.7 (1.4)	59.0%	Community	Urban	FPG, 2hOGTT	Lab	-
New Delhi Birth Cohort, Follow-up Phase 2	India	2006-2009	1,075	35.6 (1.1)	59.5%	Community	Urban	FPG, 2hOGTT	Lab	-
Chennai Urban Rural Epidemiology Study (CURES)	India	2001-2004	2,349	39.6 (12.9)	46.7%	Community	Urban	FPG, 2hOGTT, HbA _{1c}	Lab	Lab

Survey name or citation	Country	Survey year(s)	Participants ≥ 18 years	Mean age (SD)	% Male	Level of representativeness	Rural, urban or both	Biomarkers available	Glucose measurement	HbA _{1c} measurement
High Prevalence of Diabetes and Cardiovascular Risk Factors Associated with Urbanization in India. Diabetes Care. 2008;31:893-8.	India	2006	7,057	38.0 (12.1)	47.0%	Community	Both	FPG, 2hOGTT	Lab	-
Bruneck Study	Italy	1990	908	58.8 (11.4)	51.1%	Community	Rural	FPG, 2hOGTT	Lab	-
Bruneck Study	Italy	1995	775	62.6 (11.1)	50.6%	Community	Rural	FPG, 2hOGTT	Lab	-
Bruneck Study	Italy	2000	692	66.0 (10.3)	47.8%	Community	Rural	FPG, HbA _{1c}	Lab	Lab
Bruneck Study	Italy	2005	568	69.1 (9.5)	46.3%	Community	Rural	FPG, HbA _{1c}	Lab	Lab
Bruneck Study	Italy	2010	484	72.5 (8.5)	46.5%	Community	Rural	FPG, HbA _{1c}	Lab	Lab
Epidemiological Survey of Kiribati, Rural	Kiribati	1981	970	41.7 (15.8)	47.3%	Subnational	Rural	FPG, 2hOGTT	Lab	-
Epidemiological Survey of Kiribati, Urban	Kiribati	1981	1,720	35.9 (12.4)	50.6%	Subnational	Urban	FPG, 2hOGTT	Lab	-
Metabolic Syndrome Study in Malaysia	Malaysia	2008	4,091	48.1 (14.5)	34.9%	National	Both	FPG, 2hOGTT, HbA _{1c}	Lab	Lab
Mauritius Noncommunicable Disease Survey	Mauritius	1987	4,960	43.4 (13.2)	46.9%	National	Both	FPG, 2hOGTT	Lab	-
Mauritius Noncommunicable Disease Survey	Mauritius	1992	6,453	45.6 (12.1)	46.2%	National	Both	FPG, 2hOGTT	Lab	-
Mauritius Noncommunicable Disease Survey	Mauritius	1998	5,355	48.9 (11.4)	44.3%	National	Both	FPG, 2hOGTT	Lab	-
Mauritius Noncommunicable Disease Survey	Mauritius	2009	6,080	45.9 (13.6)	45.7%	National	Both	FPG, 2hOGTT	Lab	-
Trends in the Prevalence and Incidence of Non-insulin-dependent Diabetes Mellitus and Impaired Glucose Tolerance	Nauru	1975-1976	425	36.1 (13.5)	48.5%	Subnational	Both	FPG, 2hOGTT	Lab	-
Trends in the Prevalence and Incidence of Non-insulin-dependent Diabetes Mellitus and Impaired Glucose Tolerance	Nauru	1982	1,393	36.5 (13.4)	47.5%	National	Both	FPG, 2hOGTT	unknown	-
Trends in the Prevalence and Incidence of Non-insulin-dependent Diabetes Mellitus and Impaired Glucose Tolerance	Nauru	1987	1,072	39.3 (12.8)	45.3%	National	Both	FPG, 2hOGTT	Lab	-
Trends in the Prevalence and Incidence of Non-insulin-dependent Diabetes Mellitus and Impaired Glucose Tolerance	Nauru	1994	1,364	39.0 (11.3)	47.1%	National	Both	FPG, 2hOGTT	Lab	-
The Central America Diabetes Initiative (CAMDI) Survey	Nicaragua	2003-2004	1,552	40.2 (14.8)	46.0%	Community	Urban	FPG, 2hOGTT	Lab	-
Survey in Ramallah District, Rural *	Occupied Palestinian Territory	1996-1998	606	37.9 (12.7)	33.5%	Community	Rural	FPG, 2hOGTT	Portable for FPG Lab for 2hOGTT	-
Survey in Ramallah District, Urban *	Occupied Palestinian Territory	1996-1998	637	38.6 (12.7)	28.6%	Community	Urban	FPG, 2hOGTT	Portable for FPG Lab for 2hOGTT	-

Survey name or citation	Country	Survey year(s)	Participants ≥ 18 years	Mean age (SD)	% Male	Level of representativeness	Rural, urban or both	Biomarkers available	Glucose measurement	HbA _{1c} measurement
Peru Migrant Study	Peru	2007-2008	848	50.6 (10.9)	48.0%	Community	Both	FPG, HbA _{1c}	Lab	Lab
CRONICAS Cohort Study	Peru	2009-2012	3,114	55.2 (12.7)	48.7%	Subnational	Both	FPG, HbA _{1c}	Lab	Lab
Seychelles Heart Survey IV	Seychelles	2014	1,212	45.8 (11.1)	43.4%	National	Both	FPG, HbA _{1c}	Lab	Lab
Cape Town Bellville South Cohort Study, Baseline Evaluation I	South Africa	2008-2009	924	54.3 (14.7)	23.6%	Community	Urban	FPG, 2hOGTT, HbA _{1c}	Lab	Lab
Korea National Health and Nutrition Examination Survey	South Korea	2011	5,715	50.2 (16.6)	43.0%	National	Both	FPG, HbA _{1c}	Lab	Lab
Korea National Health and Nutrition Examination Survey	South Korea	2012	5,237	50.5 (16.6)	42.1%	National	Both	FPG, HbA _{1c}	Lab	Lab
Harmonizing Equation of Risk in Mediterranean countries Extremadura (The HERMEX study)	Spain	2007-2009	2,787	50.8 (14.4)	46.5%	Subnational	Both	FPG, HbA _{1c}	Lab	Lab
Study on Nutrition and Cardiovascular Risk in Spain	Spain	2008-2010	12,821	47.2 (16.7)	47.4%	National	Both	FPG, HbA _{1c}	Lab	Lab
Turkish Adult Risk Factor Study	Turkey	2012-2013	425	58.3 (10.1)	48.5%	National	Both	FPG, HbA _{1c}	Portable	Lab
The Funafuti Survey	Tuvalu	1976	415	38.2 (15.5)	49.4%	Subnational	Both	FPG, 2hOGTT	Lab	-
Hertfordshire Cohort Study	UK	1999-2004	2,758	65.7 (2.9)	52.5%	Subnational	Both	FPG, 2hOGTT	Lab	-
Health Survey for England	UK	2003	1,096	57.2 (14.0)	47.8%	National	Both	FPG, HbA _{1c}	Lab	Lab
English Longitudinal Study of Ageing, Wave 2	UK	2004-2005	3,701	63.8 (7.4)	46.5%	National	Both	FPG, HbA _{1c}	Lab	Lab
English Longitudinal Study of Ageing, Wave 4	UK	2008-2009	4,008	64.1 (7.5)	46.1%	National	Both	FPG, HbA _{1c}	Lab	Lab
English Longitudinal Study of Ageing, Wave 6	UK	2012-2013	3,465	65.8 (7.6)	44.0%	National	Both	FPG, HbA _{1c}	Lab	Lab
MRC National Survey of Health and Development (NSHD)	UK	2009	1,758	62.0 (0.0)	47.6%	National	Both	FPG, HbA _{1c}	Lab	Lab
United States National Health and Nutrition Examination Survey (US NHANES)	USA	1976-1980	3,808	48.8 (16.7)	47.2%	National	Both	FPG, 2hOGTT	Lab	-
United States National Health and Nutrition Examination Survey (US NHANES)	USA	1988-1994	3,310	56.7 (11.2)	48.7%	National	Both	FPG, 2hOGTT	Lab	-
United States National Health and Nutrition Examination Survey (US NHANES)	USA	1999-2000	1,943	47.6 (19.8)	50.0%	National	Both	FPG, HbA _{1c}	Lab	Lab
United States National Health and Nutrition Examination Survey (US NHANES)	USA	2001-2002	2,305	47.2 (20.0)	51.1%	National	Both	FPG, HbA _{1c}	Lab	Lab
United States National Health and Nutrition Examination Survey (US NHANES)	USA	2003-2004	2,111	47.9 (20.8)	50.6%	National	Both	FPG, HbA _{1c}	Lab	Lab
United States National Health and Nutrition Examination Survey (US NHANES)	USA	2005-2006	2,057	46.6 (20.1)	52.6%	National	Both	FPG, 2hOGTT, HbA _{1c}	Lab	Lab

Survey name or citation	Country	Survey year(s)	Participants ≥ 18 years	Mean age (SD)	% Male	Level of representativeness	Rural, urban or both	Biomarkers available	Glucose measurement	HbA _{1c} measurement
United States National Health and Nutrition Examination Survey (US NHANES)	USA	2007-2008	2,450	49.5 (18.5)	49.7%	National	Both	FPG, 2hOGTT, HbA _{1c}	Lab	Lab
United States National Health and Nutrition Examination Survey (US NHANES)	USA	2009-2010	2,732	48.2 (18.5)	47.4%	National	Both	FPG, 2hOGTT, HbA _{1c}	Lab	Lab
United States National Health and Nutrition Examination Survey (US NHANES)	USA	2011-2012	2,409	47.3 (18.2)	50.4%	National	Both	FPG, 2hOGTT, HbA _{1c}	Lab	Lab

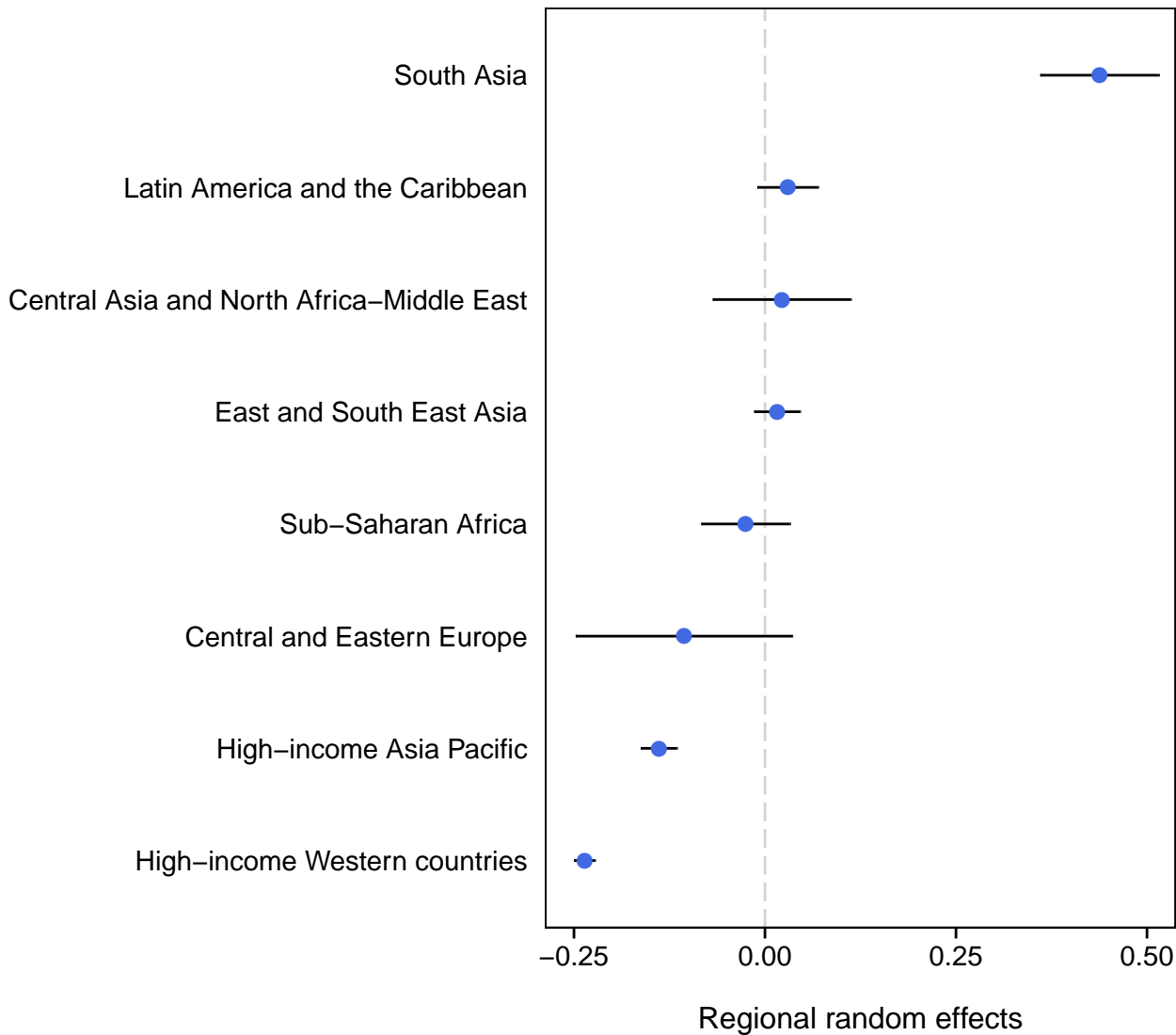
*Fasting glucose was measured in capillary whole blood, and was converted to plasma-equivalent by multiplying by 1.11.¹

Webtable 2: Population-based surveys with summarised prevalence data

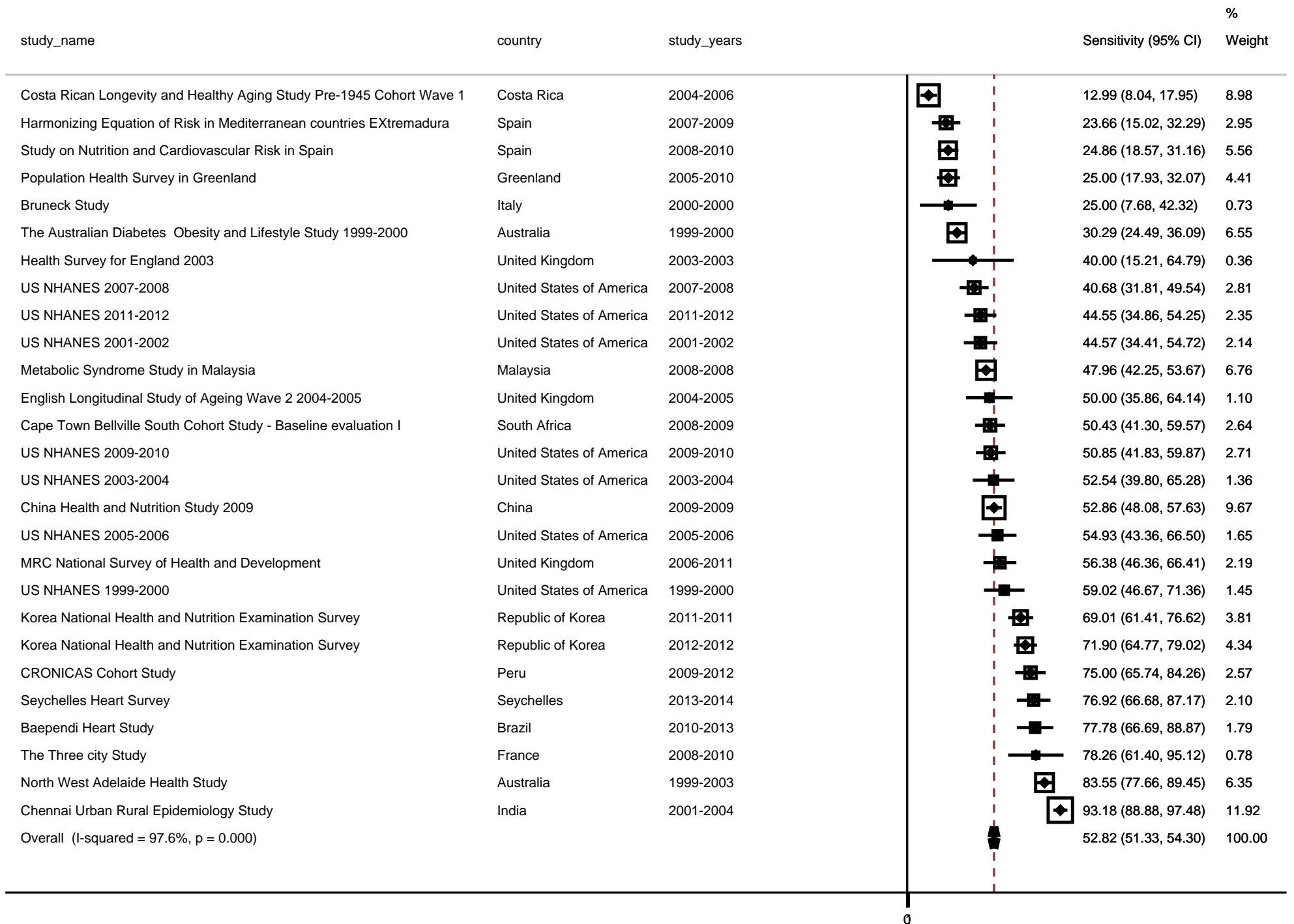
Survey name	Country	Survey year(s)	Participants ≥ 18 years	Level of representative- ness	Rural, urban or both	Biomarkers available	Glucose measurement	HbA _{1c} measurement
China Noncommunicable Disease Survey	China	2010-2011	97,630	National	Both	FPG, 2hOGTT, HbA _{1c}	Lab	Lab
Nutrition and Health of Aging Population in China	China	2011	2,241	Community	Both	FPG, HbA _{1c}	Lab	Lab
Kuopio Ischaemic Heart Disease Risk factor Study	Finland	1991-1993	517	National	Both	FPG, 2hOGTT	Lab	-
Kuopio Ischaemic Heart Disease Risk factor Study	Finland	1998-2001	1,135	National	Both	FPG, 2hOGTT	Lab	-
Kuopio Ischaemic Heart Disease Risk factor Study	Finland	2005-2008	1,703	National	Both	FPG, 2hOGTT	Lab	-
National Monitoring of Arterial Risk (MONA LISA) in Lille	France	2004-2006	1,378	Community	Urban	FPG, HbA _{1c}	Lab	Lab
National Monitoring of Arterial Risk (MONA LISA) in Bas-Rhin	France	2005-2007	1,459	Subnational	Both	FPG, HbA _{1c}	Lab	Lab
Etude Nationale Nutrition Sante	France	2006-2007	1,936	National	Both	FPG, HbA _{1c}	Lab	Lab
Enquête Littorale Souffle Air Biologie Environnement (ELISABET) Dunkerque	France	2011-2013	786	Community	Urban	FPG, HbA _{1c}	Lab	Lab
Enquête Littorale Souffle Air Biologie Environnement (ELISABET) Lille	France	2011-2013	1,322	Community	Urban	FPG, HbA _{1c}	Lab	Lab
KORA S4 Study: Kooperative Research in the Region of Augsburg Survey 4	Germany	1999-2001	1,641	Subnational	Both	FPG, 2hOGTT, HbA _{1c}	Lab	Lab
KORA F4 Study: Kooperative Research in the Region of Augsburg Follow-Up of Survey 4	Germany	2006-2008	2,829	Subnational	Both	FPG, 2hOGTT, HbA _{1c}	Lab	Lab
German Health Interview and Examination Survey for Adults 2008-2011 (DEGS1)	Germany	2008-2011	5,560	National	Both	FPG, HbA _{1c}	Lab	Lab
Chennai Urban Population Study (CUPS)	India	1996-1999	310	Community	Urban	FPG, 2hOGTT	Lab	-
The Hisayama Study	Japan	2002-2003	3,212	Community	Rural	FPG, HbA _{1c}	Lab	Lab
National Health and Nutrition Survey	Japan	2005	1,360	National	Both	FPG, HbA _{1c}	Lab	Lab
National Health and Nutrition Survey	Japan	2006	1,520	National	Both	FPG, HbA _{1c}	Lab	Lab
National Health and Nutrition Survey	Japan	2007	1,413	National	Both	FPG, HbA _{1c}	Lab	Lab
National Health and Nutrition Survey	Japan	2008	1,618	National	Both	FPG, HbA _{1c}	Lab	Lab
National Health and Nutrition Survey	Japan	2009	1,668	National	Both	FPG, HbA _{1c}	Lab	Lab
National Health and Nutrition Survey	Japan	2010	1,430	National	Both	FPG, HbA _{1c}	Lab	Lab
Observation des Risques et de la Sante Cardio-Vasculaire au Luxembourg (ORISCAV-LUX)	Luxembourg	2007-2009	1,200	National	Both	FPG, HbA _{1c}	Lab	Lab
Healthy Life in an Urban Setting (HELIUS)	Netherlands	2011-2013	1,380	Community	Urban	FPG, HbA _{1c}	Lab	Lab

Survey name	Country	Survey year(s)	Participants ≥ 18 years	Level of representative- ness	Rural, urban or both	Biomarkers available	Glucose measurement	HbA_{1c} measurement
Life Course Study in Cardiovascular Disease Epidemiology	Philippines	2009	623	Subnational	Both	FPG, 2hOGTT	Lab	-
Study of prevalence and control of CVD risk factors in the general adult population in Poland (NATPOL)	Poland	2011	535	National	Both	FPG, HbA _{1c}	Lab	Lab
Singapore Health Study 2012	Singapore	2012-2013	1,712	National	Both	FPG, HbA _{1c}	Lab	Lab
Taiwanese Survey on Hypertension, Hyperglycemia and Hyperlipidemia	Taiwan	2002	6,015	National	Both	FPG, HbA _{1c}	Lab	Lab
Taiwanese Survey on Hypertension, Hyperglycemia and Hyperlipidemia	Taiwan	2007	4,023	National	Both	FPG, HbA _{1c}	Lab	Lab
Edinburgh Artery Study	UK	1987-1988	342	Community	Urban	FPG, 2hOGTT	Lab	-

Webfigure 1: Regional random effects in the regression of diabetes prevalence defined based on HbA_{1c} (HbA_{1c} ≥ 6.5% or history of diabetes or using insulin or oral hypoglycaemic agents) against diabetes prevalence defined based on FPG (FPG ≥ 7.0 mmol/L or history of diabetes or using insulin or oral hypoglycaemic agents)



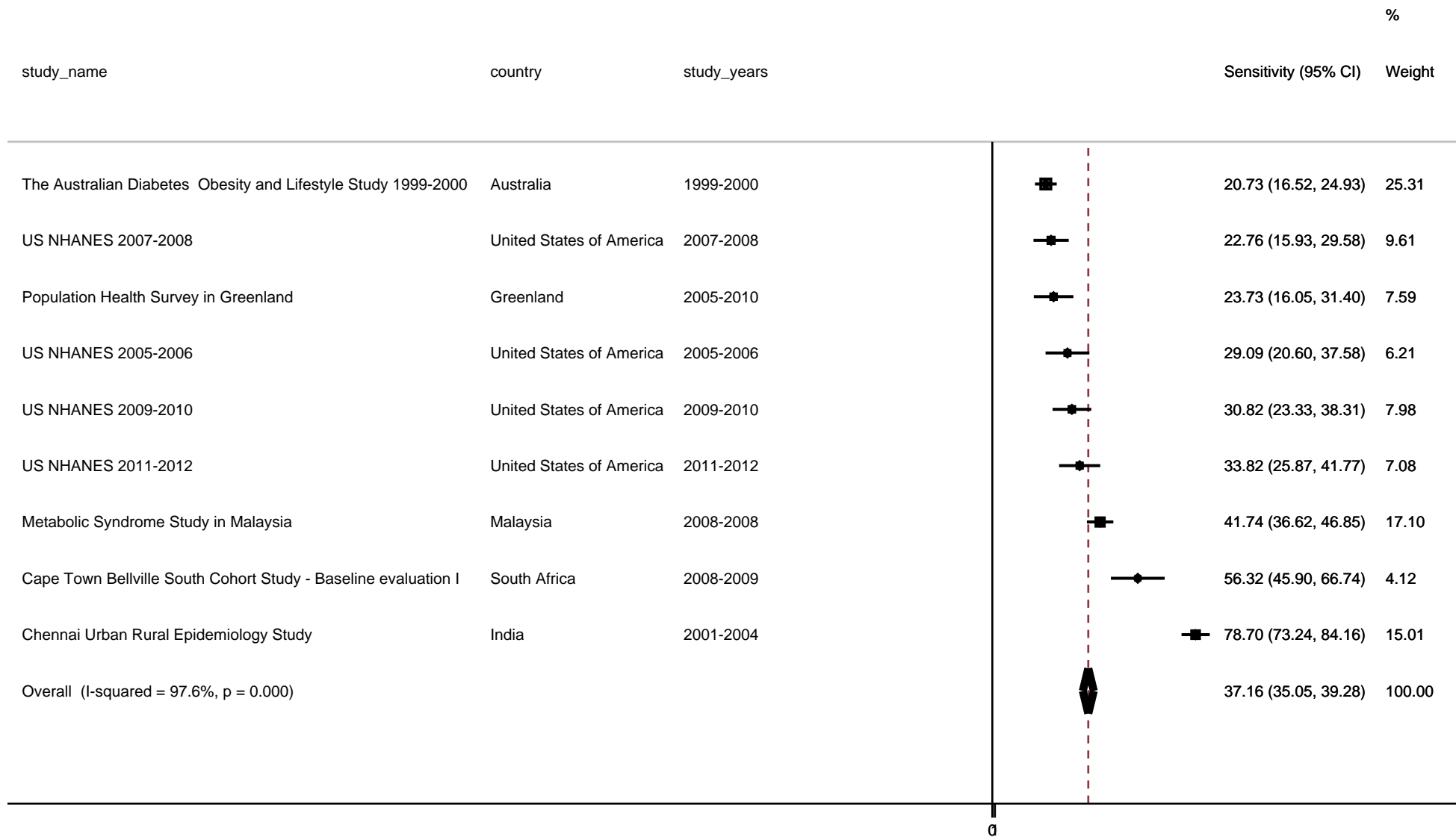
Webfigure 2: Random effect meta-analysis of diabetes diagnostic sensitivity of $\text{HbA}_{1c} \geq 6.5\%$ vs. $\text{FPG} \geq 7.0$ mmol/L in previously-undiagnosed participants



Webfigure 3: Random effect meta-analysis of diabetes diagnostic specificity of $\text{HbA}_{1c} \geq 6.5\%$ vs. $\text{FPG} \geq 7.0$ mmol/L in previously-undiagnosed participants

study_name	country	study_years	Specificity (95% CI)	Weight
Seychelles Heart Survey	Seychelles	2013-2014	88.13 (86.16, 90.11)	0.03
The Three city Study	France	2008-2010	90.86 (88.56, 93.17)	0.02
Chennai Urban Rural Epidemiology Study	India	2001-2004	92.30 (91.15, 93.46)	0.09
Baependi Heart Study	Brazil	2010-2013	94.09 (92.85, 95.33)	0.08
CRONICAS Cohort Study	Peru	2009-2012	94.57 (93.74, 95.40)	0.17
Cape Town Bellville South Cohort Study - Baseline evaluation I	South Africa	2008-2009	94.57 (92.89, 96.25)	0.04
China Health and Nutrition Study 2009	China	2009-2009	96.74 (96.35, 97.13)	0.76
Metabolic Syndrome Study in Malaysia	Malaysia	2008-2008	96.98 (96.40, 97.56)	0.35
North West Adelaide Health Study	Australia	1999-2003	97.07 (96.53, 97.61)	0.41
Bruneck Study	Italy	2000-2000	97.23 (95.93, 98.53)	0.07
Korea National Health and Nutrition Examination Survey	Republic of Korea	2012-2012	97.62 (97.19, 98.04)	0.64
Korea National Health and Nutrition Examination Survey	Republic of Korea	2011-2011	97.97 (97.59, 98.35)	0.80
Population Health Survey in Greenland	Greenland	2005-2010	97.98 (97.46, 98.50)	0.44
MRC National Survey of Health and Development	United Kingdom	2006-2011	98.33 (97.72, 98.93)	0.32
US NHANES 2011-2012	United States of America	2011-2012	98.41 (97.86, 98.95)	0.39
Costa Rican Longevity and Healthy Aging Study Pre-1945 Cohort Wave 1	Costa Rica	2004-2006	98.44 (97.89, 98.99)	0.38
English Longitudinal Study of Ageing Wave 2 2004-2005	United Kingdom	2004-2005	98.91 (98.55, 99.26)	0.93
US NHANES 2007-2008	United States of America	2007-2008	98.92 (98.47, 99.37)	0.58
US NHANES 2009-2010	United States of America	2009-2010	99.05 (98.65, 99.44)	0.75
Health Survey for England 2003	United Kingdom	2003-2003	99.23 (98.62, 99.84)	0.32
US NHANES 2001-2002	United States of America	2001-2002	99.27 (98.90, 99.64)	0.87
US NHANES 2003-2004	United States of America	2003-2004	99.41 (99.07, 99.76)	0.99
US NHANES 2005-2006	United States of America	2005-2006	99.50 (99.17, 99.83)	1.10
US NHANES 1999-2000	United States of America	1999-2000	99.72 (99.48, 99.97)	1.96
Harmonizing Equation of Risk in Mediterranean countries EXtremadura	Spain	2007-2009	99.87 (99.73, 100.02)	5.86
Study on Nutrition and Cardiovascular Risk in Spain	Spain	2008-2010	99.91 (99.86, 99.97)	41.01
The Australian Diabetes Obesity and Lifestyle Study 1999-2000	Australia	1999-2000	99.92 (99.87, 99.98)	40.65
Overall (I-squared = 98.2%, p = 0.000)			99.74 (99.71, 99.78)	100.00

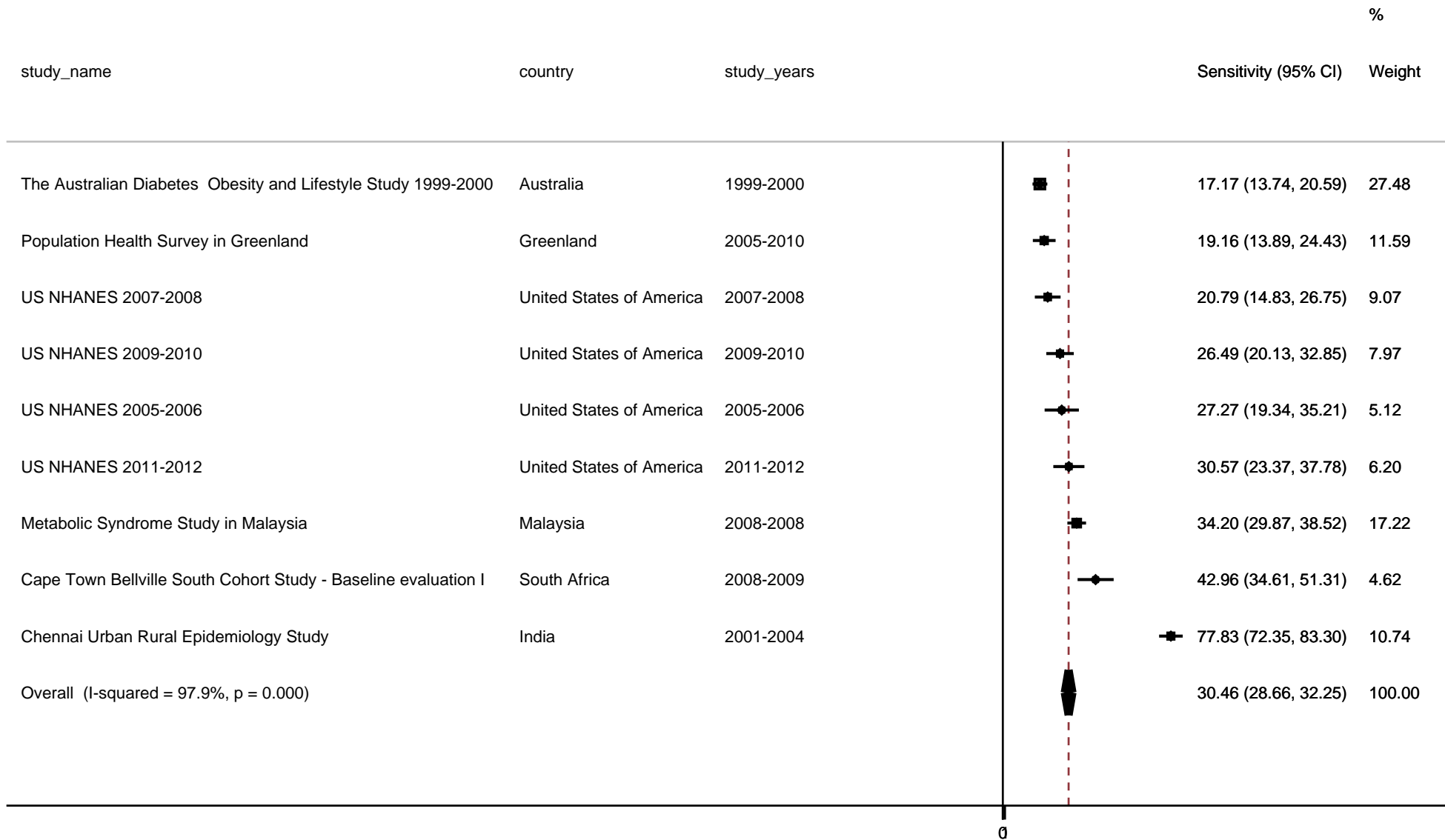
Webfigure 4: Random effect meta-analysis of diabetes diagnostic sensitivity of $\text{HbA}_{1c} \geq 6.5\%$ vs. $2\text{hOGTT} \geq 11.1$ mmol/L in previously-undiagnosed participants



Webfigure 5: Random effect meta-analysis of diabetes diagnostic specificity of $\text{HbA}_{1c} \geq 6.5\%$ vs. $2\text{hOGTT} \geq 11.1$ mmol/L in previously-undiagnosed participants



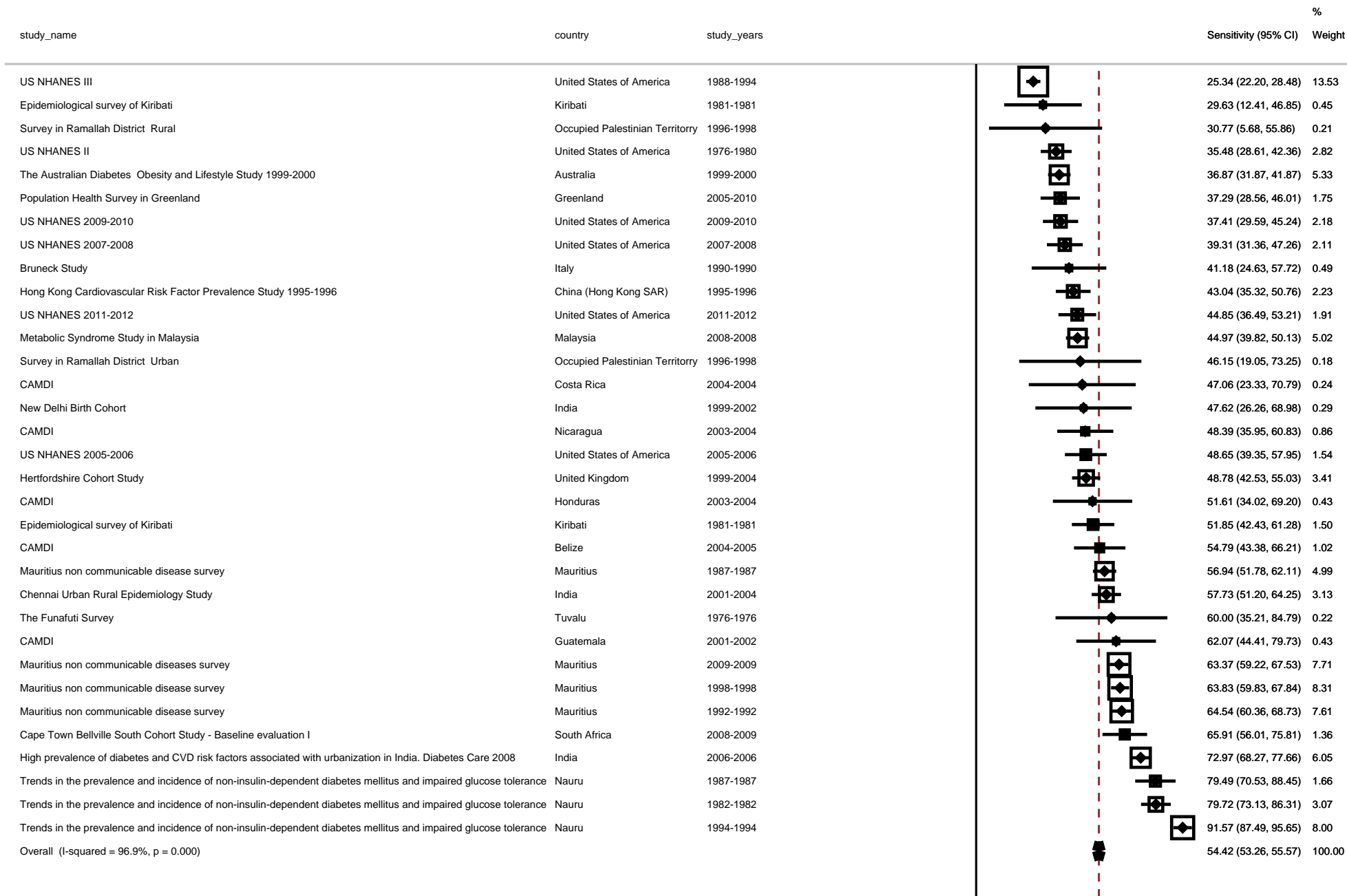
Webfigure 6: Random effect meta-analysis of diabetes diagnostic sensitivity of $\text{HbA}_{1c} \geq 6.5\%$ vs. $\text{FPG} \geq 7.0$ mmol/L or $2\text{hOGTT} \geq 11.1$ mmol/L in previously-undiagnosed participants



Webfigure 7: Random effect meta-analysis of diabetes diagnostic specificity of $\text{HbA}_{1c} \geq 6.5\%$ vs. $\text{FPG} \geq 7.0$ mmol/L or $2\text{hOGTT} \geq 11.1$ mmol/L in previously-undiagnosed participants



Webfigure 8: Random effect meta-analysis of diabetes diagnostic sensitivity of FPG ≥ 7.0 mmol/L vs. 2hOGTT ≥ 11.1 mmol/L in previously-undiagnosed participants



Webfigure 9: Random effect meta-analysis of diabetes diagnostic specificity of FPG \geq 7.0 mmol/L vs. 2hOGTT \geq 11.1 mmol/L in previously-undiagnosed participants

study_name	country	study_years	Specificity (95% CI)	% Weight
Trends in the prevalence and incidence of non-insulin-dependent diabetes mellitus and impaired glucose tolerance	Nauru	1994-1994	92.73 (91.10, 94.35)	0.20
Cape Town Bellville South Cohort Study - Baseline evaluation I	South Africa	2008-2009	93.30 (91.46, 95.13)	0.16
Trends in the prevalence and incidence of non-insulin-dependent diabetes mellitus and impaired glucose tolerance	Nauru	1987-1987	93.32 (91.59, 95.06)	0.18
Population Health Survey in Greenland	Greenland	2005-2010	96.51 (95.82, 97.20)	1.12
Hertfordshire Cohort Study	United Kingdom	1999-2004	96.66 (95.96, 97.36)	1.07
Metabolic Syndrome Study in Malaysia	Malaysia	2008-2008	96.66 (96.04, 97.29)	1.35
Mauritius non communicable diseases survey	Mauritius	2009-2009	96.92 (96.42, 97.41)	2.16
Trends in the prevalence and incidence of non-insulin-dependent diabetes mellitus and impaired glucose tolerance	Nauru	1982-1982	97.16 (96.15, 98.16)	0.52
New Delhi Birth Cohort	India	1999-2002	97.16 (96.29, 98.03)	0.70
Mauritius non communicable disease survey	Mauritius	1992-1992	97.47 (97.05, 97.89)	2.97
Mauritius non communicable disease survey	Mauritius	1998-1998	98.08 (97.66, 98.50)	2.99
US NHANES 2009-2010	United States of America	2009-2010	98.08 (97.48, 98.68)	1.48
Epidemiological survey of Kiribati	Kiribati	1981-1981	98.11 (97.44, 98.78)	1.17
US NHANES 2007-2008	United States of America	2007-2008	98.15 (97.52, 98.77)	1.34
Survey in Ramallah District Urban	Occupied Palestinian Territory	1996-1998	98.44 (97.43, 99.45)	0.52
CAMDI	Belize	2004-2005	98.46 (97.77, 99.15)	1.12
Mauritius non communicable disease survey	Mauritius	1987-1987	98.56 (98.20, 98.92)	4.17
US NHANES 2011-2012	United States of America	2011-2012	98.82 (98.31, 99.32)	2.08
CAMDI	Costa Rica	2004-2004	98.83 (98.15, 99.52)	1.13
US NHANES III	United States of America	1988-1994	98.87 (98.57, 99.17)	5.97
The Australian Diabetes Obesity and Lifestyle Study 1999-2000	Australia	1999-2000	98.92 (98.72, 99.13)	13.09
CAMDI	Honduras	2003-2004	99.03 (98.46, 99.60)	1.62
US NHANES II	United States of America	1976-1980	99.12 (98.81, 99.43)	5.54
Bruneck Study	Italy	1990-1990	99.16 (98.54, 99.78)	1.37
The Funafuti Survey	Tuvalu	1976-1976	99.25 (98.40, 100.10)	0.74
US NHANES 2005-2006	United States of America	2005-2006	99.31 (98.90, 99.72)	3.17
CAMDI	Nicaragua	2003-2004	99.40 (99.00, 99.79)	3.41
Hong Kong Cardiovascular Risk Factor Prevalence Study 1995-1996	China (Hong Kong SAR)	1995-1996	99.40 (99.10, 99.70)	5.75
High prevalence of diabetes and CVD risk factors associated with urbanization in India. Diabetes Care 2008	India	2006-2006	99.42 (99.23, 99.61)	14.72
CAMDI	Guatemala	2001-2002	99.50 (99.01, 99.99)	2.19
Epidemiological survey of Kiribati	Kiribati	1981-1981	99.57 (99.16, 99.99)	3.05
Survey in Ramallah District Rural	Occupied Palestinian Territory	1996-1998	99.64 (99.15, 100.14)	2.15
Chennai Urban Rural Epidemiology Study	India	2001-2004	99.75 (99.53, 99.97)	10.83
Overall (I-squared = 94.4%, p = 0.000)			98.90 (98.83, 98.97)	100.00

References

1. Sacks DB, Arnold M, Bakris GL, et al. Guidelines and recommendations for laboratory analysis in the diagnosis and management of diabetes mellitus. *Clin Chem* 2011; **57**(6): e1-e47.