

Health economic research assessing the value of early detection of cardiovascular disease: a systematic review

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Title: Appendix 5. Real-world data and validation

Caption: Overview which real-world data is used in each study and how simulation models were validated.

Publication	RWD on disease incidence	RWD on mortality	RWD on treatment effectiveness	RWD on utility	RWD on costs	Reported model validation?
Aronsson et al., 2017	Swedish registry study	Swedish life tables	None	None	Swedish registry study	None
Beyhaghi and Viera, 2019	Combined 2None11–2None12 and 2None13–2None14 NHANES data	US Life Tables	None	None	None	None
Birkemeyer et al., 2020	None	German life tables	None	None	Erlangen register	None
Catchpool et al., 2019	None	Australian life tables obtained from the Australian Bureau of Statistics	None	None	National Hospital Cost Data Collection Report Round 2None (2None15–2None16)	None
Crossan et al., 2017	The Health Improvement Network (THIN) database	None	None	None	None	None
Dehmer et al., 2017	NHANES	None	None	None	Agency for Healthcare Research and Quality	None
Fite et al., 2021	None	None	None	None	Agency in combination with local data obtained from Catalan Health Agency and Hospital de Sant Pau Administration	None
Flahault et al., 2018	None	French life tables	None	None	None	None
Giebel, 2020	None	None	None	None	None	None
Hager et al., 2017	None	Swedvasc registry	Swedvasc registry	None	cost-per-patient database in the County Council of Östergötland, Sweden	None
Hill et al., 2020	None	None	None	None	NHS reference costs	Yes, compared results to original study
Högberg et al., 2018	None	Swedish life tables	None	None	Swedish screening program	Yes, compared to recent population-based screening study in Sweden
Hultgren et al., 2019	None	Swedish life tables	Swedvasc registry	None		No, based on an already validated model
Hynninen et al., 2019	FINRISK	Finnish statistics	None	Finnish statistics	None	None
Itoga et al., 2018	None	Social Security Administration. Actuarial Life	None	None	US Department of Veterans Affairs. 2None16 National Acquisition Center.	None

Publication	RWD on disease incidence	RWD on mortality	RWD on treatment effectiveness	RWD on utility	RWD on costs	Reported model validation?
		Table: Period Life Table				
Jacobs et al., 2018	None	Statistics Nigeria	None	None	None	None
Jacobs et al., 2021	None	None	None	None	None	None
Kariuki et al., 2018	None	None	None	None	None	None
Kievit et al., 2017	None	Dutch statistics	None	None	None	None
Kypridemos et al., 2018	NHS Health Check programme	Office for National Statistics	None	None	NHS Health Check programme	Yes, calibration to English population
Lagerweij et al., 2020	None	None	None	None	None	None
Lee et al., 2021	Cohort profile: the National Health Insurance Service-National Health Screening Cohort (NHIS-HEALS) in Korea	Korean statistics	None	None	None	None
Lindholt and Sogaard, 2021	None	None	None	None	None	Yes, face validity and outcome check compared to reality
Malhotra et al., 2019	None	None	None	None	None	Yes, face validation, internal validation and external validation
McIntyre et al., 2020	None	None	None	None	Canadian Agency for Drugs and Technologies in Health	None
Monahan et al., 2018	None	British life tables	None	Health Survey for England, 2012	None	None
Moran et al., 2016	Central Statistics Office Irish Population Data. 2015.	None	None	None	Health Service Executive. Cost of care in approved facilities. 2015	Yes, external validation and model calibration
Nair et al., 2019	National abdominal aortic aneurysm screening programme	NZ life tables	None	None	None	Yes, external validation and model calibration
Nguyen et al., 2016	Prevalence, awareness, treatment and control of hypertension in Vietnam-results from a national survey	Vietnam life tables	None	None	None	None

Publication	RWD on disease incidence	RWD on mortality	RWD on treatment effectiveness	RWD on utility	RWD on costs	Reported model validation?
Oguz et al., 2020	None	USA life tables	Discontinuation risk comparison among ‘real-world’ newly anticoagulated atrial fibrillation patients: apixaban, warfarin, dabigatran, or rivaroxaban.	None	None	Face validation by experts and external validation
Orchard et al., 2020	None	None	None	None	None	None
Proietti et al., 2019	A population screening programme for atrial fibrillation: A report from the Belgian Heart Rhythm Week screening programme	epidemiological data about the general Belgian population	None	None	None	None
Rosendaal et al., 2016	None	Nigerian life tables	None	None	None	None
Schnabel et al., 2021	None	None	None	None	None	None
Sciera et al., 2022	Observational AFFORD study	Danish registries	The Danish National Patient Register	None	Danish Nationwide Registry Stud	None
Smith et al., 2019	None	National statistics	None	None	None	None
Stol et al., 2021	None	None	None	None	None	None, described elsewhere
Sweeting et al., 2021	National abdominal aortic aneurysm screening programme	None	National Vascular Registry	None	National schedule of NHS costs	Yes, externally validated against real-world trial data
Tarride et al., 2018	Swedish registry study	Statistics Canada	None	None	None	None
Tessler et al., 2021	Registries	None	None	Cost-Effectiveness Analysis Registry Database	Israeli Ministry of Health(IMOH) 2019 price list	None
Thompson et al., 2018	11 RESCAN surveillance studies	UK life tables	None	results from an United Kingdom national questionnaire survey	NHS Reference Costs	Yes, externally validated against trial data
Tseng et al., 2021	None	National Vital Statistics	None	None	Healthcare Cost and Utilization Project’s	None

[illegible]