

Appendix 2: Covariables and data sources used in the Population Health Model (POHEM) for cardiovascular disease (CVD)

CVD risk factors (# categories)	Data sources	POHEM covariates (# categories)												
		Demographics					SES		Chronic disease profile and Biophysical measures				Health behaviours	
		Initial data source	5 years age groups (16)	Sex (2)	Region (5)	Ethnicity (2)	Immigrant (2)	Income (4)	Education (4)	Diabetes (2)	Heart disease (2)	Blood pressure (5)	Total cholesterol and HDL (5)	BMI/previous BMI (4)
Blood pressure*(5)	Imputed using CHHS (1990)	√	√							√		√	√	
Total cholesterol and HDL* (5)	Imputed using CHHS (1990)	√	√							√	√		√	
Obesity (4)	NPHS (1996/97 - 2004/05)	√	√	√			√	√					√†	
Diabetes (2)	NPHS (1996-97)	√†	√‡		√	√		√		√	√		√†	√
Smoking (3)	CHS (1979), NPHS (1994) and CCHS (2008)	√	√‡	√										

**Notes:** CCHS= Canadian Community Health Survey, CHHS= Canadian Heart Health Study, CHS= Canadian Health Study, HDL= high-density lipoprotein, HS= health status, HUI= health utilities index, NPHS=Nation Population Health Survey, SES= socioeconomic status.  
 \*Co-evolving risk factors.  
 †Characteristics that are strongly predictive of the outcome (CVD risk factor).  
 ‡Models were constructed separately for males and females.