Table 3: Estimates of agreement, sensitivity, specificity, and predictive values for coronary heart disease algorithms

# Years		Algorithm	κ	Sens. (%)	Spec. (%)	Youden	PPV (%)	NPV (%)
1	1	1+P	0.41	35.2	98.6	0.34	55.1	96.9
	2	2+P	0.37	28.0	99.2	0.27	62.2	96.6
	3	1+H or 1+ P	0.42	36.4	98.6	0.35	55.1	97.0
	4	1+ H or 2+ P	0.38	29.3	99.1	0.28	61.9	96.7
	5	1+ H or 1+ P or 1+ Rx	0.23	80.8	82.0	0.63	17.8	98.9
	6	1+ H or 1+ P or 2+ Rx	0.23	74.1	83.4	0.57	17.7	98.5
	7	1+H or 2+P or (1 P and 2+Rx)	0.42	35.9	98.7	0.35	57.3	97.0
2	8	1+P	0.46	45.4	98.0	0.43	51.8	97.4
	9	2+P	0.41	36.3	98.5	0.35	53.5	97.0
	10	1+H or 1+ P	0.47	47.2	97.9	0.45	52.1	97.5
	11	1+ H or 2+ P	0.43	38.3	98.4	0.37	53.7	97.1
	12	1+ H or 1+ P or 1+ Rx	0.22	81.1	81.2	0.62	17.1	98.9
	13	1+ H or 1+ P or 2+ Rx	0.23	77.3	82.4	0.60	17.4	98.7
	14	1+H or 2+P or (1 P and 2+Rx)	0.48	46.8	98.1	0.45	53.8	97.5
3	15	1+P	0.48	52.2	97.3	0.49	48.0	97.7
	16	2+P	0.44	42.9	98.0	0.41	50.2	97.3
	17	1+H or 1+ P	0.48	54.0	97.1	0.51	47.3	97.8
	18	1+ H or 2+ P	0.45	45.2	97.8	0.43	49.2	97.4
	19	1+ H or 1+ P or 1+ Rx	0.22	82.8	80.4	0.63	16.9	99.0
	20	1+ H or 1+ P or 2+ Rx	0.22	78.8	81.6	0.60	17.1	98.8
	21	1+H or 2+P or (1 P and 2+Rx)	0.49	53.6	97.3	0.51	49.1	97.8
5	22	1+P	0.48	60.6	96.2	0.57	43.1	98.1
	23	2+P	0.47	51.5	97.3	0.49	47.5	97.7
	24	1+H or 1+ P	0.49	63.4	96.0	0.59	43.2	98.2
	25	1+ H or 2+ P	0.48	54.9	97.1	0.52	47.3	97.8
	26	1+ H or 1+ P or 1+ Rx	0.21	84.7	79.0	0.64	16.2	99.1
	27	1+ H or 1+ P or 2+ Rx	0.22	80.3	80.8	0.61	16.7	98.8
	28	1+H or 2+P or (1 P and 2+Rx)	0.50	63.0	96.4	0.59	45.4	98.2

Notes:

* # Years = number of years of administrative data to which the case ascertainment algorithm was applied. For example, 1+P in one year identifies individuals as disease cases if they had one or more physician billing claims with the relevant diagnosis code(s) in a one-year period. The algorithm 1+H or 2+P in one year identifies individuals as disease cases if they had one or more hospitalization or two or more physician claims with the relevant diagnosis code(s) in a one-year period.
* H = Hospital separation; P = Physician billing claim; Rx = Prescription drug record; PPV = Positive Predictive Value; NPV = Negative Predictive Value

Source: Lix L, Yogendran M, Mann J. *Defining and Validating Chronic Diseases: An Administrative Data Approach. An Update with ICD-10-CA*. Winnipeg, MB: Manitoba Centre for Health Policy, November 2008.