

Web Table 1. Coronary Heart Disease (CHD) Incidence During Follow-up Among Participants Without CHD Claims, by Look-Back Period and CHD Claims Algorithm, REGARDS Study, 1999–2009

CHD History Claims Algorithm	CHD Incidence (per 1,000 Person-Years)					
	6-month fixed-window look-back period			≥6-month all-available look-back period		
	Overall	Self-reported CHD		Overall	Self-reported CHD	
		No	Yes		No	Yes
Base algorithm	9.9 (9.0-10.8)	7.2 (6.4-8.0)	23.6 (20.2-27.0)	8.2 (7.3-9.0)	7.1 (6.3-7.9)	19.7 (15.2-24.3)
Expanded algorithm	8.1 (7.2-8.9)	6.8 (6.0-7.6)	21.1 (16.5-25.7)	6.6 (5.7-7.4)	6.3 (5.5-7.2)	13.3 (6.8-19.8)
	1-year fixed-window look-back period			≥1-year all-available look-back period		
	Overall	Self-reported CHD		Overall	Self-reported CHD	
		No	Yes		No	Yes
Base algorithm	9.5 (8.6-10.4)	7.3 (6.4-8.2)	22.5 (18.9-26.2)	8.3 (7.4-9.2)	7.2 (6.4-8.1)	20.0 (15.3-24.7)
Expanded algorithm	7.7 (6.8-8.6)	6.8 (5.9-7.6)	21.9 (15.9-27.9)	6.7 (5.8-7.5)	6.4 (5.6-7.3)	13.9 (6.9-20.9)
	2-year fixed-window look-back period			≥2-year all-available look-back period		
	Overall	Self-reported CHD		Overall	Self-reported CHD	
		No	Yes		No	Yes
Base algorithm	9.3 (8.3-10.2)	7.6 (6.6-8.5)	21.6 (17.3-25.9)	8.5 (7.6-9.5)	7.6 (6.6-8.5)	19.2 (14.2-24.1)
Expanded algorithm	7.4 (6.4-8.3)	6.9 (6.0-7.9)	16.7 (10.0-23.5)	6.8 (5.9-7.8)	6.6 (5.7-7.6)	12.8 (5.5-20.0)

Abbreviations: CHD, coronary heart disease; ICD-9, *International Classification of Diseases*, Ninth Revision; REGARDS, Reasons for Geographic and Racial Differences in Stroke.

The base algorithm identified those with CHD claims included those containing ICD-9 codes for myocardial infarction (≥1 inpatient claim containing ICD-9 diagnoses 410.x or 412.x, or ≥2 physician evaluation and management outpatient claims that are ≥7 calendar days apart containing ICD-9 diagnosis 412.x) or ICD-9 and Current Procedural Terminology (CPT) codes for revascularizations (≥1 inpatient or outpatient claim containing ICD-9 procedure codes 00.66, 36.01-36.09 or 36.10-36.19 or CPT codes 92980-92996, 33510-33536, or ≥1 inpatient or evaluation and management outpatient claim containing ICD-9 diagnosis codes V45.81 or V45.82).

The expanded algorithm identified those with CHD claims in the base algorithm or ≥1 inpatient or physician evaluation and management outpatient claim with 410, 411, 412, 413, or 414 codes.

Web Table 2. Hazard Ratios for Associations Between Traditional Coronary Heart Disease (CHD) Risk Factors and CHD Outcomes Among Participants Without CHD Claims, REGARDS Study, 1999–2009

Characteristic	Hazard Ratio (95% Confidence Interval)			
	6-month fixed-window look-back and base algorithm (n = 8603)	6-month fixed-window look-back and expanded algorithm (n = 7433)	6-month all-available look-back and expanded algorithm (n = 6119)	1-year fixed-window look-back and expanded algorithm (n = 6593)
Age, per 5-year increase	1.28 (1.19-1.38)	1.30 (1.19-1.41)	1.25 (1.13-1.39)	1.30 (1.18-1.43)
Black vs. white	0.94 (0.77-1.14)	0.86 (0.68-1.09)	0.99 (0.75-1.31)	0.96 (0.75-1.24)
Male	2.12 (1.75-2.56)	2.14 (1.71-2.67)	2.13 (1.63-2.78)	2.24 (1.76-2.85)
Dyslipidemia	1.32 (1.08-1.60)	1.31 (1.04-1.65)	1.19 (0.91-1.57)	1.28 (1.00-1.64)
Hypertension	1.44 (1.17-1.75)	1.32 (1.05-1.66)	1.25 (0.95-1.64)	1.33 (1.04-1.71)
Diabetes	1.83 (1.51-2.22)	1.58 (1.24-2.01)	1.69 (1.26-2.27)	1.56 (1.20-2.04)

Abbreviations: CHD, coronary heart disease; ICD-9, *International Classification of Diseases*, Ninth Revision; REGARDS, Reasons for Geographic and Racial Differences in Stroke.

Characteristics shown were obtained from the REGARDS Study telephone interview and in-home visit.

The base algorithm identified those with CHD claims containing ICD-9 codes for myocardial infarction (≥ 1 inpatient claim containing ICD-9 diagnoses 410.x or 412.x, or ≥ 2 physician evaluation and management outpatient claims that are ≥ 7 calendar days apart containing ICD-9 diagnosis 412.x) or ICD-9 and Current Procedural Terminology (CPT) codes for revascularizations (≥ 1 inpatient or outpatient claim containing ICD-9 procedure codes 00.66, 36.01-36.09 or 36.10-36.19 or CPT codes 92980-92996, 33510-33536, or ≥ 1 inpatient or evaluation and management outpatient claim containing ICD-9 diagnosis codes V45.81 or V45.82).

The expanded algorithm identified those with CHD claims in the base algorithm or ≥ 1 inpatient or physician evaluation and management outpatient claim with 410, 411, 412, 413, or 414 codes.

Web Table 3. Characteristics of REGARDS Participants by Study Eligibility for 6 Month All-Available and 1 Year Fixed-Window Look-Back Analyses, Using the Expanded Algorithm, REGARDS Study, 1999–2007

Characteristic	6-Month All-Available Look-Back Analyses					
	Ineligible for 6-month look-back analyses†			CHD claims-free cohort		
	Overall (n = 5,164)	No self-report CHD (n = 4,318)	Self-report CHD (n = 846)	Overall (n = 6,119)	No self-report CHD (n = 5,900)	Self-report CHD (n = 219)
Mean age (SD), years	73.3 (5.9)	73.1 (5.8)	74.4 (6.1)	72.9 (5.6)	72.9 (5.6)	72.9 (6.1)
Black	2,541 (49.2)	2,216 (51.3)	325 (38.4)	2,003 (32.7)	1,922 (32.6)	81 (37.0)
Male	2,303 (44.6)	1,775 (41.1)	528 (62.4)	2,745 (44.9)	2,609 (44.2)	136 (62.1)
Current smoker	548 (10.7)	452 (10.5)	96 (11.4)	562 (9.2)	529 (9.0)	33 (15.2)
Dyslipidemia	2,964 (59.9)	2,301 (55.7)	663 (80.8)	3,427 (58.1)	3,277 (57.6)	150 (70.8)
Hypertension	3,454 (67.1)	2,812 (65.3)	642 (76.0)	3,813 (62.5)	3,654 (62.1)	159 (73.3)
Diabetes	1,225 (24.7)	936 (22.6)	289 (35.5)	1,135 (19.2)	1,066 (18.7)	69 (32.5)

Characteristic	1-Year Fixed-Window Look-Back Analyses					
	Ineligible for 1-year look-back analyses††			CHD claims-free cohort		
	Overall (n = 5033)	No self-report CHD (n = 4,189)	Self-report CHD (n = 844)	Overall (n = 6593)	No self-report CHD (n = 6,143)	Self-report CHD (n = 450)
Mean age (SD), years	73.7 (5.7)	73.5 (5.7)	74.6 (5.9)	73.6 (5.6)	73.5 (5.5)	74.3 (5.8)
Black	2,475 (49.2)	2,150 (51.3)	325 (38.5)	2,166 (32.9)	2,020 (32.9)	146 (32.4)
Male	2,246 (44.6)	1,721 (41.1)	525 (62.2)	3,002 (45.5)	2,696 (43.9)	306 (68.0)
Current smoker	524 (10.5)	432 (10.4)	92 (11.0)	613 (9.3)	547 (8.9)	66 (14.8)
Dyslipidemia	2,892 (60.0)	2,232 (55.8)	660 (80.6)	3,748 (59.0)	3,432 (58.0)	316 (72.6)
Hypertension	3,374 (67.2)	2,734 (65.5)	640 (75.8)	4,180 (63.5)	3,849 (62.8)	331 (73.7)
Diabetes	1,198 (24.8)	911 (22.7)	287 (35.3)	1,293 (20.3)	1,145 (19.3)	148 (33.7)

Abbreviations: CHD, coronary heart disease; ICD-9, *International Classification of Diseases*, Ninth Revision; REGARDS, Reasons for Geographic and Racial Differences in Stroke; SD, standard deviation.

Characteristics shown were obtained from the REGARDS Study telephone interview and in-home visit.

Participants aged ≥ 65.5 years ($n = 14,101$) were considered for 6-month look-back analyses and participants aged ≥ 66 years ($n = 13,516$) were considered for 1-year look-back analyses (see Figure 1).

The expanded algorithm identified those with ≥ 1 inpatient or evaluation and management outpatient claim containing ICD-9 diagnosis codes for myocardial infarction (410.x or 412.x) or other ischemic heart disease (411.x, 413.x, 414.x), or with ICD-9 and Current Procedural Terminology (CPT) codes for revascularizations (≥ 1 inpatient or outpatient claim containing ICD-9 procedure codes 00.66, 36.01-36.09 or 36.10-36.19 or CPT codes 92980-92996, 33510-33536, or ≥ 1 inpatient or evaluation and management outpatient claim containing ICD-9 diagnosis codes V45.81 or V45.82).

† Ineligible due to unsuccessful Medicare linkage or < 6 months of continuous Medicare A + B – C coverage.

†† Ineligible due to unsuccessful Medicare linkage or < 1 year of continuous Medicare A + B – C coverage.

Web Table 4. Characteristics and Type of Self-Reported CHD Among Participants With Self-Reported CHD, by the Presence or Absence of CHD Claims, REGARDS Study, 1999–2007

Characteristic	6-Month All-Available Look-Back			
	Base algorithm CHD claims		Expanded algorithm CHD claims	
	No (n = 692)	Yes (n = 1,155)	No (n = 219)	Yes (n = 1,628)
Mean age (SD), years	73.5 (6.0)	74.8 (5.7)	72.9 (6.1)	74.5 (5.8)
Black	206 (29.8%)	267 (23.1%)	81 (37.0%)	392 (24.1%)
Male	461 (66.6%)	807 (69.9%)	136 (62.1%)	1,132 (69.5%)
Current smoker	84 (12.2%)	95 (8.2%)	33 (15.2%)	146 (9.0%)
Dyslipidemia	507 (75.6%)	942 (82.9%)	150 (70.8%)	1,299 (81.4%)
Hypertension	507 (73.6%)	826 (72.0%)	159 (73.3%)	1,174 (72.5%)
Diabetes	205 (30.8%)	380 (33.9%)	69 (32.5%)	516 (32.8%)
Type of self-reported CHD				
Myocardial Infarction	400 (57.8%)	651 (56.4%)	132 (60.3%)	919 (56.4%)
Coronary artery bypass graft	200 (28.9%)	622 (53.9%)	37 (16.9%)	785 (48.2%)
Percutaneous coronary intervention	291 (42.1%)	640 (55.4%)	84 (38.4%)	847 (52.0%)
Characteristic	1-Year Fixed Window Look-Back			
	Base algorithm CHD claims		Expanded algorithm CHD claims	
	No (n = 1,239)	Yes (n = 537)	No (n = 450)	Yes (n = 1,326)
Mean age (SD), years	74.6 (5.8%)	74.5 (5.6%)	74.3 (5.8)	74.7 (5.7)
Black	322 (26.0%)	128 (23.8%)	146 (32.4%)	304 (22.9%)
Male	847 (68.4%)	375 (69.8%)	306 (68.0%)	916 (69.1%)
Current smoker	129 (10.5%)	41 (7.6%)	66 (14.8%)	104 (7.8%)
Dyslipidemia	947 (78.3%)	442 (83.9%)	316 (72.6%)	1,073 (82.5%)
Hypertension	898 (72.8%)	388 (72.9%)	331 (73.7%)	955 (72.5%)
Diabetes	385 (32.1%)	174 (33.7%)	148 (33.7%)	411 (32.2%)
Type of self-reported CHD				
Myocardial Infarction	724 (58.4%)	285 (53.1%)	272 (60.4%)	737 (55.6%)
Coronary artery bypass graft	491 (39.6%)	305 (56.8%)	131 (29.1%)	665 (50.2%)
Percutaneous coronary intervention	571 (46.1%)	317 (59.0%)	180 (40.0%)	708 (53.4%)

Abbreviations: CHD, coronary heart disease; ICD-9, *International Classification of Diseases*, Ninth Revision; REGARDS, Reasons for Geographic and Racial Differences in Stroke; SD, standard deviation.

Characteristics shown were obtained from the REGARDS Study telephone interview and in-home visit.

The expanded algorithm identified those with ≥ 1 inpatient or evaluation and management outpatient claim containing ICD-9 diagnosis codes for myocardial infarction (410.x or 412.x) or other ischemic heart disease (411.x, 413.x, 414.x), or with ICD-9 and Current Procedural Terminology (CPT) codes for revascularizations (≥ 1 inpatient or outpatient claim containing ICD-9 procedure codes 00.66, 36.01-36.09 or 36.10-36.19 or CPT codes 92980-92996, 33510-33536, or ≥ 1 inpatient or evaluation and management outpatient claim containing ICD-9 diagnosis codes V45.81 or V45.82).

Web Table 5. Participant Characteristics and CHD Claims Among Those *With* a CHD Claims Using the Expanded Algorithm, by Self-Reported CHD Status, REGARDS Study, 1999–2007

Characteristic or CHD History Claim	6-Month All-Available Look-Back Self-reported CHD		1-Year Fixed-Window Look-Back Self-reported CHD	
	No (n = 1,190)	Yes (n = 1,628)	No (n = 564)	Yes (n = 1,326)
REGARDS characteristics				
Mean age (SD), years	75.2 (5.9)	74.5 (5.8)	75.4 (5.9)	74.7 (5.7)
Black	474 (39.8%)	392 (24.1%)	230 (40.8%)	304 (22.9%)
Male	531 (44.6%)	1,132 (69.5%)	273 (48.4%)	916 (69.1%)
Current smoker	112 (9.4%)	146 (9.0%)	48 (8.5%)	104 (7.8%)
Dyslipidemia	725 (63.8%)	1,299 (81.4%)	356 (65.4%)	1,073 (82.5%)
Hypertension	841 (70.9%)	1,174 (72.5%)	402 (71.5%)	955 (72.5%)
Diabetes	329 (29.0%)	516 (32.8%)	168 (31.1%)	411 (32.2%)
Medicare claims				
History of myocardial infarction	37 (3.1%)	330 (20.3%)	12 (2.1%)	92 (6.9%)
History of percutaneous coronary intervention	36 (3.0%)	574 (35.3%)	18 (3.2%)	236 (17.8%)
History of coronary artery bypass graft	21 (1.8%)	626 (38.5%)	8 (1.4%)	288 (21.7%)
History of 411.x	129 (10.8%)	445 (27.3%)	36 (6.4%)	142 (10.7%)
History of 413.x	321 (27.0%)	551 (33.8%)	113 (20.0%)	193 (14.6%)
History of 414.x	969 (81.4%)	1583 (97.2%)	483 (85.6%)	1268 (95.6%)
Days between most recent CHD claim and the REGARDS baseline study interview, median (Q1, Q3)	374 (122.0, 856.0)	103 (37.0, 242.5)	119.5 (49.5, 218.5)	79.5 (31.0, 159.0)

Abbreviations: CHD, coronary heart disease; CPT, Current Procedural Terminology; ICD-9, *International Classification of Diseases*, Ninth Revision; Q1, first quartile; Q3, third quartile; REGARDS, Reasons for Geographic and Racial Differences in Stroke; SD, standard deviation.

Characteristics shown were obtained from the REGARDS Study telephone interview and in-home visit.

Self-reported CHD was defined as reporting a previous myocardial infarction or revascularization.

History of myocardial infarction was defined as ≥ 1 inpatient or evaluation and management outpatient claim containing ICD-9 diagnoses 410.x or 410.x.

History of percutaneous coronary intervention was defined as ≥ 1 inpatient or outpatient claim containing ICD-9 procedure codes 00.66 or 36.01-36.09, or CPT codes 92980-92996, or ≥ 1 inpatient or evaluation and management outpatient claim containing ICD-9 diagnosis code V45.82.

History of coronary artery bypass graft was defined as ≥ 1 inpatient or outpatient claim containing ICD-9 procedure codes 36.10-36.19, or CPT codes 33510-33536, or ≥ 1 inpatient or evaluation and management outpatient claim containing ICD-9 diagnosis code V45.81.

The expanded algorithm identified those with a history of myocardial infarction, percutaneous coronary intervention, coronary artery bypass graft, or other ischemic heart disease (411.x, 413.x, 414.x).

Web Table 6. Percent Self-Reporting CHD Among Populations *With* CHD Claims, by Look-Back Period and CHD Claims Algorithm, REGARDS Study, 1999–2007

CHD History Claims Algorithm	6-Month Fixed-Window Look-Back		≥6-Month All-Available Look-Back	
	No. with CHD claims	Percent self-reporting CHD	No. with CHD claims	Percent self-reporting CHD
Base algorithm	334	315 (94.3%)	1,255	1,155 (92.0%)
Base algorithm or ≥1 inpatient or ≥1 outpatient claim with 410, 411, 412, 413, or 414 codes (expanded algorithm)	1,504	1,112 (73.9%)	2,818	1,628 (57.8%)
CHD History Claims Algorithm	1-Year Fixed-Window Look-Back		≥1-Year All-Available Look-Back	
	No. with CHD claims	Percent self-reporting CHD	No. with CHD claims	Percent self-reporting CHD
Base algorithm	575	537 (93.4%)	1,228	1,129 (91.9%)
Base algorithm or ≥1 inpatient or ≥1 outpatient claim with 410, 411, 412, 413, or 414 codes (expanded algorithm)	1,890	1,326 (70.2%)	2,743	1,578 (57.5%)
CHD History Claims Algorithm	2-Year Fixed-Window Look-Back		≥2-Year All-Available Look-Back	
	No. with CHD claims	Percent self-reporting CHD	No. with CHD claims	Percent self-reporting CHD
Base algorithm	800	748 (93.5%)	1,145	1,050 (91.7%)
Base algorithm or ≥1 inpatient or ≥1 outpatient claim with 410, 411, 412, 413, or 414 codes (expanded algorithm)	2,110	1,350 (64.0%)	2,557	1,447 (56.6%)

Abbreviations: CHD, coronary heart disease; ICD-9, *International Classification of Diseases*, Ninth Revision; REGARDS, Reasons for Geographic and Racial Differences in Stroke.

Self-reported CHD was defined as reporting a previous myocardial infarction or revascularization.

The 6 look-back periods shown were used to create cohorts without a history of Medicare CHD claims, as described in Figure 2.

The base algorithm identified those with CHD claims containing ICD-9 codes for myocardial infarction (≥1 inpatient claim containing ICD-9 diagnoses 410.x or 412.x, or ≥2 physician evaluation and management outpatient claims that are ≥7 calendar days apart containing ICD-9 diagnosis 412.x) or ICD-9 and Current Procedural Terminology (CPT) codes for revascularizations (≥1 inpatient or outpatient claim containing ICD-9 procedure codes 00.66, 36.01-36.09 or 36.10-36.19 or CPT codes 92980-92996, 33510-33536, or ≥1 inpatient or evaluation and management outpatient claim containing ICD-9 diagnosis codes V45.81 or V45.82).

The expanded algorithm identified those with CHD claims in the base algorithm or ≥1 inpatient or physician evaluation and management outpatient claim with 410, 411, 412, 413, or 414 codes.

Web Table 7. Percent With Coronary Heart Disease (CHD) Claims Among Participants Who Self-Report CHD, By Look-Back Period and CHD Claims Algorithm, REGARDS Study, 1999–2007

CHD History Claims Algorithm	6-Month Fixed-Window Look-Back <i>n</i> = 1,847	≥6-Month All-Available Look-Back <i>n</i> = 1,847
	Percent with CHD claims	Percent with CHD claims
Base algorithm	315 (17.1%)	1,155 (62.5%)
Base algorithm or ≥1 inpatient or ≥1 outpatient claim with 410, 411, 412, 413, or 414 codes (expanded algorithm)	1,112 (60.2%)	1,628 (88.1%)
	1-Year Fixed-Window Look-Back <i>n</i> = 1,776	≥1-Year All-Available Look-Back <i>n</i> = 1,776
	Percent with CHD claims	Percent with CHD claims
Base algorithm	537 (30.2%)	1,129 (63.6%)
Base algorithm or ≥1 inpatient or ≥1 outpatient claim with 410, 411, 412, 413, or 414 codes (expanded algorithm)	1,326 (74.7%)	1,578 (88.9%)
	2-Year Fixed-Window Look-Back <i>n</i> = 1,618	≥2-Year All-Available Look-Back <i>n</i> = 1,618
	Percent with CHD claims	Percent with CHD claims
Base algorithm	748 (46.2%)	1,050 (64.9%)
Base algorithm or ≥1 inpatient or ≥1 outpatient claim with 410, 411, 412, 413, or 414 codes (expanded algorithm)	1,350 (83.4%)	1,447 (89.4%)

Abbreviations: CHD, coronary heart disease; ICD-9, *International Classification of Diseases*, Ninth Revision; REGARDS, Reasons for Geographic and Racial Differences in Stroke.

Self-reported CHD was defined as reporting a previous myocardial infarction or revascularization.

The 6 look-back periods shown were used to create cohorts without a history of Medicare CHD claims, as described in Figure 2.

The base algorithm identified those with CHD claims containing ICD-9 codes for myocardial infarction (≥1 inpatient claim containing ICD-9 diagnoses 410.x or 412.x, or ≥2 physician evaluation and management outpatient claims that are ≥7 calendar days apart containing ICD-9 diagnosis 412.x) or ICD-9 and Current Procedural Terminology (CPT) codes for revascularizations (≥1 inpatient or outpatient claim containing ICD-9 procedure codes 00.66, 36.01-36.09 or 36.10-36.19 or CPT codes 92980-92996, 33510-33536, or ≥1 inpatient or evaluation and management outpatient claim containing ICD-9 diagnosis codes V45.81 or V45.82).

The expanded algorithm identified those with CHD claims in the base algorithm or ≥1 inpatient or physician evaluation and management outpatient claim with 410, 411, 412, 413, or 414 codes.