Supplemental Online Content

This supplemental material has been provided by the authors to give readers additional information about their work.

eTable 1. Algorithm to Identify Outpatient Episodes in Claims Data from 2008 to 2017	

Outpatient Episodes	The following logic was used to identify outpatient episodes in claims data[a]:
	1. We first restricted to claims that were not flagged as Emergency Department visits, Inpatient stays or Observation stays
	2. To define Office Visits:
	    a. Narrowed down to claims that were flagged as either an office visit or face to face visit
	        i. Office visits include claims with the following CPT codes: 99201-99205, 99211-99215, 99241-99245, 99271-99275, 99321-99322, 99331-99333, 99341-99353, 99381-99387, 99391-99397, 99401-99404, 99411-99412, 99429, 99455-99456, 99483, 99495-99496
	        ii. Face to face visits include claims with the following CPT codes: 99201-99215, 99217-99239, 99241-99255, 99281-99288, 99291-99292, 99304-99318, 99324-99337, 99339-99350, 99354-99429, 99441-99458, 99460-99463-99499
	    b. Office visits were separated into two subcategories, primary care provider (PCP) visits and specialist visits
	    c. Categorized PCP visits as those that were flagged within a PROVCAT category of any PCP, adult PCP or pediatric PCP
	    d. Categorized specialist visits as those that were flagged within a PROVCAT category of specialist or outpatient specialist
	3. To define Laboratory visits:
	    a. Claims with CPT codes 80047-89398 were categorized as Laboratory
	    b. Pathology labs were excluded
	    c. The remaining laboratory visits were separated into two subcategories, nutrition labs (e.g. iron, copper, vitamin B12, vitamin D) and all other labs (e.g. hematology, chemistry, microbiology, toxicology, endocrine) by a clinician on the team
	4. To define Radiology visits
	    a. Claims with CPT codes 70010-79999 were categorized as Radiology
	    b. Radiology visits were separated by body site imaged into abdomen/pelvic imaging and all other imaging based on review of each procedure code
	5. To define Pharmacy claims
	    a. Pharmacy claims were separated into two subcategories, cardiometabolic prescription fills (including medications for T2D, hypertension, dyslipidemia) and all other prescription fill indications (including pain, mental illness, antimicrobials, etc.)
	6. The remaining outpatient claims were categorized as Other and included claims for ambulatory procedures, durable medical equipment, vaccination, transport, facility-administered medications, and physical therapy/occupational therapy.

eTable 1: Algorithm to Identify Outpatient Episodes in Claims Data from 2008-2017
a. Data were housed at the Harvard Pilgrim Health Care Institute and accessed by local team members using data security and credentialing processes in accordance with the data use agreement and local regulatory guidelines.

eTable 2. Results from Multivariable Difference-in-Differences Analyses Comparing Patients Undergoing SG vs RYGB Between 2008 and 2016 Across Categories of Ambulatory Care Costs and Use With a Gamma Distribution

	Post-Operative Year 1, SG vs. RYGB		Post-Operative Year 2, SG vs. RYGB		Post-Operative Year 3, SG vs. RYGB		Post-Operative Year 4, SG vs. RYGB		Post-Operative Year 1, SG vs. RYGB, gamma distribution		Post-Operative Year 2, SG vs. RYGB, gamma distribution		Post-Operative Year 3, SG vs. RYGB, gamma distribution		Post-Operative Year 4, SG vs. RYGB, gamma distribution	
	Absolute Difference[b] ($) (95% CI)	Relative Difference[c] (%) (95% CI)	Absolute Difference ($) (95% CI)	Relative Difference (%) (95% CI)	Absolute Difference[b] ($) (95% CI)	Relative Difference[c] (%) (95% CI)	Absolute Difference ($) (95% CI)	Relative Difference (%) (95% CI)	Absolute Difference (95% CI)	Relative Difference (%) (95% CI)	Absolute Difference (95% CI)	Relative Difference (%) (95% CI)	Absolute Difference (95% CI)	Relative Difference (%) (95% CI)	Absolute Difference (95% CI)	Relative Difference (%) (95% CI)
Total Ambulatory Care Costs	-421.9 (-1334.1, 490.4)	-5.3% (-16.1%, 5.6%)	-642.9 (-1643.4, 357.5)	-8.4% (-20.5%, 3.7%)	-138.9 (-1273.2, 995.4)	-2.0% (-17.8%, 13.9%)	382.8 (-1366.0, 2131.6)	5.1% (-19.2%, 29.5%)	-425.8 (-1347.7, 496.0)	-5.3% (-16.1%, 5.6%)	-647.9 (-1661.0, 365.2)	-8.4% (-20.6%, 3.8%)	-140.9 (-1289.3, 1007.5)	-2.0% (-17.9%, 13.9%)	383.6 (-1379.5, 2146.6)	5.1% (-19.3%, 29.4%)
Prescription Drug Costs	36.1 (-252.0, 324.3)	1.7% (-11.9%, 15.2%)	173.3 (-80.1, 426.7)	9.7% (-5.6%, 25.1%)	140.2 (-283.0, 563.3)	7.1% (-15.6%, 29.9%)	852.8[f] (395.6, 1310.0)	52.4%[e] (17.8%, 87.0%)	36.5 (-259.9, 332.9)	1.7% (-12.1%, 15.4%)	175.9 (-86.0, 437.7)	9.8% (-5.9%, 25.4%)	142.6 (-288.5, 573.7)	7.2% (-15.7%, 30.1%)	861.1[f] (392.9, 1329.3)	52.2%[e] (17.0%, 87.4%)
Office Visit Costs	-36.7 (-103.5, 30.1)	-4.1% (-11.2%, 3.1%)	-14.4 (-85.4, 56.5)	-1.7% (-10.1%, 6.6%)	-2.0 (-87.1, 83.1)	-0.3% (-11.1%, 10.6%)	-43.8 (-176.1, 88.5)	-5.3% (-20.5%, 10.0%)	-36.8 (-107.1, 33.4)	-4.1% (-11.6%, 3.4%)	-14.4 (-86.9, 58.1)	-1.7% (-10.2%, 6.8%)	-2.1 (-89.3, 85.2)	-0.3% (-11.3%, 10.8%)	-43.9 (-177.7, 89.8)	-5.3% (-20.6%, 10.1%)
Laboratory Costs	-118.9[d] (-220.2, -17.5)	-13.9%[e] (-24.2%, -3.6%)	-107.6[d] (-197.2, -18.1)	-15.9%[e] (-27.4%, -4.5%)	-106.7 (-244.5, 31.1)	-18.0% (-37.5%, 1.4%)	-4.0 (-116.7, 108.7)	-0.8% (-23.6%, 22.0%)	-118.9[d] (-222.7, -15.1)	-13.8%[d] (-24.4%, -3.3%)	-107.6[d] (-200.4, -14.9)	-15.9%[e] (-27.7%, -4.1%)	-106.9 (-246.4, 32.6)	-18.0% (-37.6%, 1.6%)	-3.9 (-117.9, 110.1)	-0.8% (-23.7%, 22.2%)
Radiology Costs	-4.6 (-97.7, 88.5)	-0.7% (-15.5%, 14.1%)	-63.6 (-189.7, 62.6)	-9.2% (-26.0%, 7.6%)	6.7 (-121.7, 135.0)	1.1% (-20.3%, 22.5%)	22.5 (-150.8, 195.7)	3.4% (-23.7%, 30.6%)	-4.7 (-100.5, 91.1)	-0.7% (-15.9%, 14.4%)	-63.9 (-190.3, 62.5)	-9.2% (-25.9%, 7.5%)	6.6 (-123.4, 136.6)	1.1% (-20.4%, 22.6%)	22.7 (-151.4, 196.8)	3.4% (-23.6%, 30.5%)
All Other Outpatient Costs	-264.7 (-945.4, 416.1)	-7.7% (-26.1%, 10.7)	-600.9 (-1432.8, 231.0)	-16.4% (-35.7%, 3.0%)	-164.6 (-1103.8, 774.6)	-5.1% (-33.2%, 22.9%)	-537.1 (-1900.9, 826.7)	-13.9% (-45.1%, 17.2%)	-264.7 (-933.7, 404.4)	-7.6% (-25.7%, 10.4%)	-600.9 (-1447.3, 245.5)	-16.3% (-35.9%, 3.4%)	-165.4 (-1104.6, 773.8)	-5.1% (-33.0%, 22.7%)	-538.9 (-1909.4, 831.6)	-13.9% (-45.1%, 17.2%)

eTable 2: Results from Multivariable Difference-in-Differences Analyses[a] Comparing Patients Undergoing SG vs. RYGB Between 2008-2016 Across Categories of Ambulatory Care Costs & Use with a Gamma Distribution

a. Difference-in-Differences analyses adjusting for all matched variables were used to generate between-group estimates for change in each outcome, at each time period, relative to a preoperative baseline period spanning months -24 to -13 before the index surgical date. We selected year -2 as the preoperative baseline for comparison because the year immediately before surgery represents a very high utilization time, due to pre-operative workup.

b. Absolute differences in each period refer to the estimated actual change in costs among SG patients minus that in RYGB patients in that segment versus baseline (months -24 to -13), accounting for all other periods.

c. Relative differences in each period refer to the estimated relative difference between SG and RYGB patients versus baseline, accounting for all other periods.

d. p-value <0.05

e. p-value <0.01

f. p-value <0.001

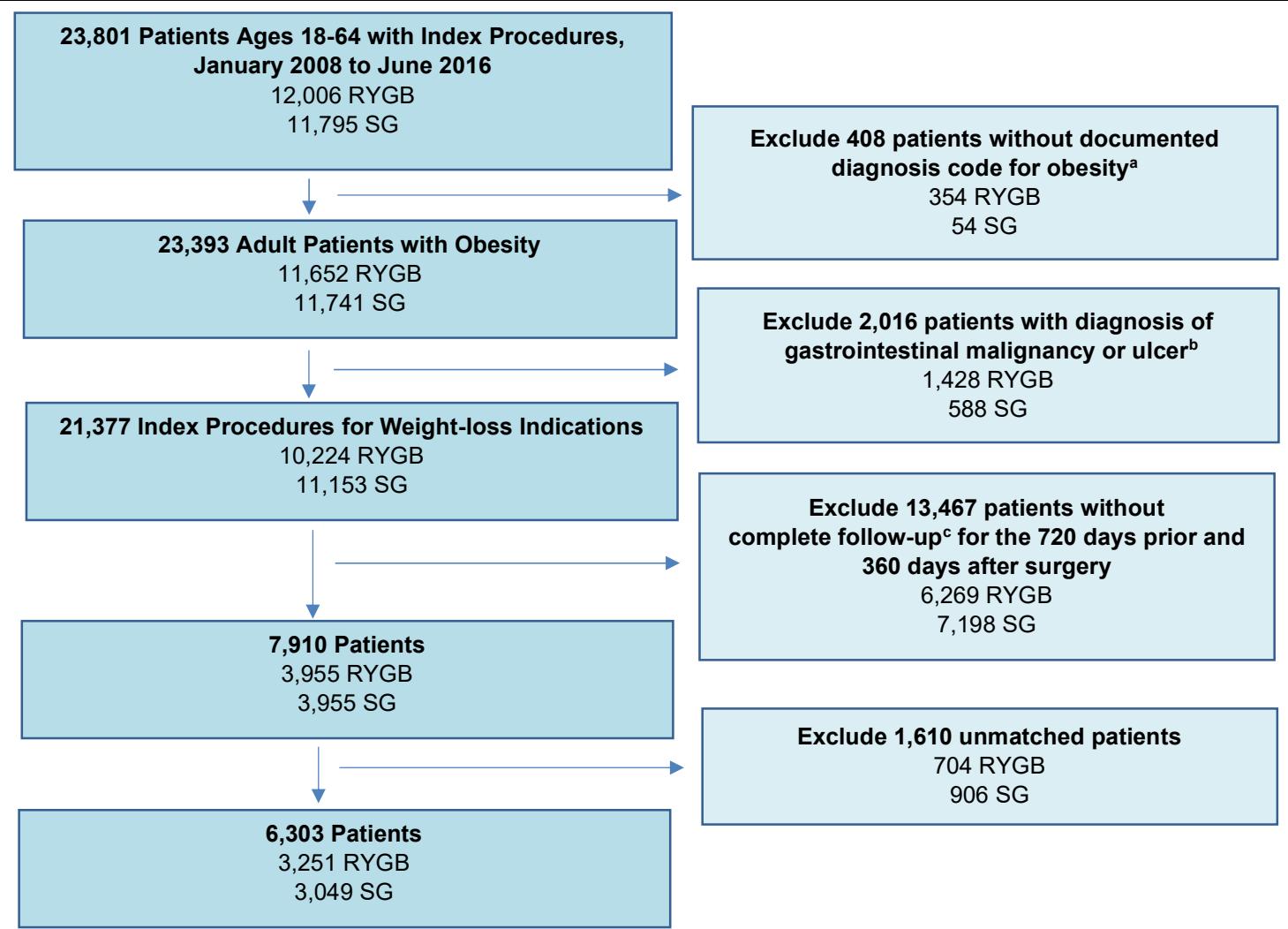| Model	Cohort	E-value (E-value for relevant limit of confidence interval)[a]	Parameter Estimate from Model[b] (95% CI)
eTable 3. E-values and Interpretations for All Models with Statistically Significant Findings Comparing Patients Undergoing SG vs RYGB Between 2008 and 2016			
Year 1 Laboratory Costs	Main cohort	1.54 (1.06)	0.88 (0.79 , 0.99)
Year 4 Prescription Costs	Main cohort	2.22 (1.55)	1.44 (1.14 , 1.80)
Year 3 Prescription Costs	4-year sensitivity cohort	1.87 (1.15)	1.28 (1.02, 1.59)
Year 4 Prescription Costs	4-year sensitivity cohort	2.11 (1.35)	1.38 (1.07 , 1.78)
Year 2 Encounters for cardiometabolic prescription fills	Main cohort	1.51 (1.11)	1.13 (1.01, 1.26)
Year 3 Encounters for cardiometabolic prescription fills	Main cohort	1.61 (1.14)	1.17 (1.01, 1.34)
Year 4 Encounters for cardiometabolic prescription fills	Main cohort	1.82 (1.29)	1.26 (1.05, 1.50)
Year 1 Other lab encounters	Main cohort	1.49 (1.17)	0.89 (0.81, 0.97)
Year 2 Other lab encounters	Main cohort	1.52 (1.11)	0.88 (0.79 , 0.99)
Year 3 Specialist encounters	Main cohort	1.50 (1.09)	0.89 (0.79 , 0.99)
Year 4 PCP encounters	4-year sensitivity cohort	1.58 (1.12)	1.15 (1.01 , 1.31)

eTable 3: E-values and Interpretations for All Models with Statistically-Significant Findings Comparing Patients Undergoing SG vs. RYGB Between 2008-2016

a. E-values were calculated using the E-Value package in R.[1–3] They can be interpreted as follows, using year 4 prescription costs as an example: For unmeasured confounding to invalidate the observed IRR of 1.4, a confounder would have to have a magnitude of effect greater than an IRR of 2.2. One of the most likely confounders, which we do match on and adjust for is ACG score (overall comorbidity measure). In our models, the largest IRR for that term was 2.16, which is slightly less than but similar than 2.2. It is unlikely there is another unmeasured confounder with a larger effect on prescription costs than overall comorbidity burden that would invalidate our results.

b. Since the e-value program requires the inputs to be RR or OR, we used incident rate ratio (IRR). IRRs are the exponentials of the corresponding regression coefficients in the Stata regression outputs.

eFigure. Flow Diagram for Cohort Selection of Patients with Index SG and RYGB Between 2008 and 2016

23,801 Patients Ages 18-64 with Index Procedures, January 2008 to June 2016 12,006 RYGB 11,795 SG	
	Exclude 408 patients without documented diagnosis code for obesity[a] 354 RYGB 54 SG
23,393 Adult Patients with Obesity 11,652 RYGB 11,741 SG	
	Exclude 2,016 patients with diagnosis of gastrointestinal malignancy or ulcer[b] 1,428 RYGB 588 SG
21,377 Index Procedures for Weight-loss Indications 10,224 RYGB 11,153 SG	
	Exclude 13,467 patients without complete follow-up[c] for the 720 days prior and 360 days after surgery 6,269 RYGB 7,198 SG
7,910 Patients 3,955 RYGB 3,955 SG	
	Exclude 1,610 unmatched patients 704 RYGB 906 SG
6,303 Patients 3,251 RYGB 3,049 SG	

Abbreviations: RYGB, Roux-en-Y gastric bypass, SG, Sleeve gastrectomy

Legend Text: a. Based on the presence of either a specific BMI diagnosis > 30kg/m^2 or a nonspecific morbid obesity diagnosis in the 360 days before surgery.

b. Patients were excluded if they had a gastrointestinal malignancy diagnosis in the 720 days prior or a gastrointestinal ulcer diagnosis or procedure in the 30 days prior to their index surgery. **c.** Patients were censored when they turned 65, in the last month of our dataset (June 1, 2017), on the date of incident gastrointestinal malignancy or at insurance disenrollment (loss to follow-up).

eTable 4. Attrition at Each Postoperative Year for Patients Undergoing SG or RYGB Between 2008 and 2016				
	Time Since Surgery			
	1 year	**2 years**	**3 years**	**4 years**
Number of patients observed by group, regardless of calendar year of surgery (numerators for all percent observed calculations)	SG 3049 RYGB 3251	SG 1952 RYGB 2173	SG 1054 RYGB 1151	SG 514 RYGB 643
Percent of full analytic cohort observed, relative to surgery date (using 3049 SG & 3251 RYGB as denominator)	SG 100% RYGB 100%	SG 64% RYGB 67%	SG 35% RYGB 35%	SG 17% RYGB 20%
Number of patients eligible for this amount of follow-up based on year of surgery	SG 3049 RYGB 3251	SG 2561 RYGB 2997	SG 1972 RYGB 2237	SG 1396 RYGB 1700
Percent of eligible patients observed (true cohort retention rate, using # eligible as denominator)	SG 100% RYGB 100%	SG 76% RYGB 73%	SG 53% RYGB 51%	SG 37% RYGB 38%

eTable 5. Examining for Differential Attrition by Patient Characteristics: Baseline Characteristics of Patients in Main Analytic Cohort Enrolled at 1 and 4 Years After Surgery						
Variable[c]	Enrolled at 360d After Matching[a], No. (%)			Enrolled at 1440d After Matching[a], No. (%)		
	RYGB (N=4488)	SG (N=4142)	Standardized Difference[b]	RYGB (N=687)	SG (N=392)	Standardized Difference[b]
Year of Surgery			0.00			0.00
2008-2011	962 (21.4%)	888 (21.4%)		386 (56.1%)	220 (56.1%)	
2012-2014	2424 (54.0%)	2237 (54.0%)		301 (43.9%)	172 (43.9%)	
2015-2017	1102 (24.6%)	1017 (24.6%)				
Age ≥ 40 y	2985 (66.5%)	2821 (68.1%)	0.07	500 (72.8%)	293 (74.7%)	0.03
Female Sex	3449 (76.9%)	3163 (76.4%)	-0.01	535 (77.9%)	285 (72.7%)	-0.12
White Neighborhood[d], ≥75%	2436 (54.3%)	2165 (52.3%)	0.10	386 (56.1%)	217 (55.4%)	0.25
Neighborhood Poverty[e]			0.03			0.12
Less Poor (<10%)	2084 (46.5%)	1991 (48.1%)		357 (52.0%)	205 (52.2%)	
More Poor (≥10%)	2403 (53.5%)	2151 (51.9%)		330 (48.0%)	187 (47.7%)	
Region of United States			0.00			0.00
West	747 (16.6%)	689 (16.6%)		123 (17.9%)	70 (17.9%)	
South	2537 (56.5%)	2341 (56.5%)		389 (56.6%)	222 (56.6%)	
Midwest	862 (19.2%)	796 (19.2%)		138 (20.2%)	79 (20.2%)	
Northeast	342 (7.6%)	316 (7.6%)		37 (5.4%)	21 (5.4%)	
BMI Category[f]			0.00			0.00
30-39.9	612 (13.6%)	565 (13.6%)		77 (11.2%)	44 (11.2%)	
40-49.9	2579 (57.5%)	2380 (57.5%)		485 (70.7%)	277 (70.7%)	
50-59.9	614 (13.7%)	567 (13.7%)		56 (8.2%)	32 (8.2%)	
≥60	87 (1.9%)	80 (1.9%)		5 (0.8%)	3 (0.8%)	
Non-specific obesity	596 (13.3%)	550 (13.3%)		63 (9.2%)	36 (9.2%)	
ACG Score ≥3	1583 (35.3%)	1410 (34.0%)	-0.03	201 (29.3%)	115 (29.3%)	0.01
Type 2 Diabetes	1371 (30.5%)	1265 (30.5%)	0.00	182 (26.5%)	104 (26.5%)	0.00
Insulin Use	230 (5.1%)	212 (5.1%)	0.00	26 (3.8%)	15 (3.8%)	0.00

Hypertension	2533 (56.4%)	2405 (58.1%)	0.03	373 (54.3%)	228 (58.2%)	0.08
Cardiovascular Disease	445 (9.9%)	436 (10.5%)	0.02	64 (9.3%)	51 (13.0%)	0.12
Psychiatric Illness	1168 (26.0%)	1030 (24.9%)	-0.03	157 (22.9%)	85 (21.7%)	-0.03

eTable 5: Examining for Differential Attrition by Patient Characteristics: Baseline Characteristics of Patients in our Main Analytic Cohort Enrolled at 1 and 4 years after Surgery

Abbreviations: RYGB, Roux-en-Y gastric bypass, SG, Sleeve gastrectomy, BMI, Body Mass Index, ACG, Johns Hopkins Adjusted Clinical Groups ® System , ED, Emergency Department

a. We conducted coarsened exact matching (CEM) on BMI category, diabetes status and insulin use, total ambulatory care cost quartile during the pre-surgical year, region of the U.S., and calendar period, as well as tertile of a propensity score that included patient sex, age group, ACG score (<3 vs. ≥3), and neighborhood demographics b. Standardized differences are the difference in means between intervention and control divided by the SD of the difference in means. Lower absolute values indicate greater similarity, and values <0.2 indicate minimal differences between groups. c. Please refer to the methods section for complete descriptions of how we constructed baseline variables. d. White neighborhoods defined as census tracts where >75% of residents were Non-Hispanic White. e. Neighborhoods with more poverty were those where ≥10% of households were below the poverty line. f. Body mass index based on most recent pre-surgery diagnosis

eTable 6. Presurgery Characteristics of the Matched Main Cohort vs the Sensitivity Cohort of Patients With Index SG and RYGB Between 2008 and 2016						
Variable[c]	RYGB, No. (%)			SG, No. (%)		
	RYGB Main Cohort (N=3251)	RYGB Sensitivity Cohort (N=687)	Standardized Difference[b]	SG Main Cohort (N=3049)	SG Sensitivity Cohort (N=392)	Standardized Difference[b]
Year of Surgery			0.53			0.83
2008-2011	2191 (67.4%)	568 (82.7%)		695 (22.8%)	220 (56.1%)	
2012-2014	881 (27.1%)	119 (17.3%)		1648 (54.1%)	172 (43.9%)	
2015-2017	179 (5.5%)	0 (0%)		706 (23.1%)	0 (0.0%)	
Age ≥ 40 y	2272 (69.9%)	470 (68.4%)	0.17	2140 (70.2%)	293 (74.7%)	0.14
Female Sex	2530 (77.8%)	534 (77.7%)	-0.02	2302 (75.5%)	285 (72.7%)	-0.07
White Neighborhood[d], ≥75%	1755 (54.0%)	375 (54.6%)	0.05	1601 (52.5%)	217 (55.4%)	0.15
Neighborhood Poverty[e]			0.12			0.12
Less Poor (<10%)	1491 (45.8%)	321 (46.7%)		1507 (49.4%)	205 (52.3%)	
More Poor (≥10%)	1760 (54.2%)	366 (53.3%)		1542 (50.6%)	187 (47.7%)	
Region of United States			0.06			0.20
West	588 (18.1%)	122 (17.8%)		489 (16.0%)	70 (17.9%)	
South	1749 (53.8%)	390 (56.8%)		1722 (56.5%)	222 (56.6%)	
Midwest	685 (21.1%)	138 (20.1%)		575 (18.9%)	79 (20.2%)	
Northeast	229 (7.0%)	37 (5.4%)		263 (8.6%)	21 (5.4%)	
BMI Category[f]			0.66			0.32
30-39.9	264 (8.1%)	46 (6.7%)		397 (13.0%)	44 (11.2%)	
40-49.9	1807 (55.6%)	520 (75.7%)		1824 (59.8%)	277 (70.7%)	
50-59.9	274 (8.4%)	40 (5.8%)		411 (13.5%)	32 (8.2%)	
≥60	31 (1.0%)	2 (0.3%)		35 (1.1%)	3 (0.8%)	
Non-specific obesity	875 (26.9%)	79 (11.5%)		382 (12.5%)	36 (9.2%)	
ACG Score ≥3	1152 (35.4%)	208 (30.3%)	0.00	1063 (34.9%)	115 (29.3%)	-0.12
Type 2 Diabetes	1267 (39.0%)	197 (28.7%)	0.00	947 (31.1%)	104 (26.5%)	-0.14
Insulin Use	274 (8.4%)	23 (3.3%)	0.00	159 (5.2%)	15 (3.8%)	-0.08

Hypertension	1987 (61.1%)	374 (54.4%)	0.00.	1795 (58.9%)	228 (58.2%)	-0.02
Cardiovascular Disease	408 (12.5%)	76 (11.1%)	0.17	346 (11.3%)	51 (13.0%)	0.05
Psychiatric Illness	843 (25.9%)	136 (19.8%)	0.00	738 (24.2%)	85 (21.7%)	0.18

eTable 6: Pre-Surgery Characteristics of the Matched Main Cohort vs. the Sensitivity Cohort of Patients with Index SG and RYGB between 2008 and 2016

Abbreviations: RYGB, Roux-en-Y gastric bypass, SG, Sleeve gastrectomy, BMI, Body Mass Index, ACG, Johns Hopkins Adjusted Clinical Groups ® System , ED, Emergency Department

a. We conducted coarsened exact matching (CEM) on BMI category, diabetes status and insulin use, total ambulatory care cost quartile during the pre-surgical year, region of the U.S., and calendar period, as well as tertile of a propensity score that included patient sex, age group, ACG score (<3 vs. ≥3), and neighborhood demographics. The comparison between the matched main cohort and sensitivity cohort did not use the matched weights because the coarsened exact matches were conducted separately. b. Standardized differences are the difference in means between intervention and control divided by the SD of the difference in means. Lower absolute values indicate greater similarity, and values <0.2 indicate minimal differences between groups. c. Please refer to the methods section for complete descriptions of how we constructed baseline variables. d. White neighborhoods defined as census tracts where >75% of residents were Non-Hispanic White. e. Neighborhoods with more poverty were those where ≥10% of households were below the poverty line. f. Body mass index based on most recent pre-surgery diagnosis

eTable 7. Results From Multivariable Difference-in-Differences Analyses Comparing Patients Undergoing SG vs RYGB Between 2008 and 2016 Across Categories of Ambulatory Care Costs and Use Among Those With 4 Years of Follow-up

	Post-Operative Year 1, SG vs. RYGB		Post-Operative Year 2, SG vs. RYGB		Post-Operative Year 3, SG vs. RYGB		Post-Operative Year 4, SG vs. RYGB	
	Absolute Difference[b] (95% CI)	Relative Difference[c] (%) (95% CI)	Absolute Difference (95% CI)	Relative Difference (%) (95% CI)	Absolute Difference (95% CI)	Relative Difference (%) (95% CI)	Absolute Difference (95% CI)	Relative Difference (%) (95% CI)
Total Ambulatory Care Costs	1045.1 (-381.0, 2471.2)	14.6% (-7.2%, 36.4%)	705.6 (-557.3, 1968.4)	11.3% (-10.5%, 33.1%)	296.8 (-972.5, 1566.0)	4.7% (-16.3%, 25.7%)	1278.4 (-253.6, 2810.3)	18.6% (-6.4%, 43.7%)
Prescription Drug Costs	298.5 (-85.2, 682.2)	17.1% (-7.5%, 41.7%)	316.0 (-100.4, 732.4)	18.6% (-9.0%, 46.2%)	482.2[d] (87.8, 876.6)	29.6%[d] (1.0%, 58.3%)	700.2[e] (210.9, 1189.4)	42.5%[d] (6.9%, 78.0%)
Office Visit Costs	46.1 (-86.3, 178.5)	5.7% (-11.6%, 23.0%)	28.0 (-92.4, 148.3)	3.9% (-13.5%, 21.3%)	-14.7 (-130.0, 100.5)	-2.1% (-18.5%, 14.2%)	22.3 (-95.7, 140.4)	3.0% (-13.4%, 19.5%)
Laboratory Costs	-68.5 (-254.0, 117.1)	-7.9% (-28.0%, 12.1%)	-39.8 (-183.0, 103.5)	-6.5% (-28.8%, 15.8%)	-16.4 (-141.0, 108.2)	-3.3% (-27.9%, 21.3%)	47.0 (-82.3, 176.3)	10.0% (-19.2%, 39.2%)
Radiology Costs	180.7 (-12.1, 373.4)	33.3% (-9.8%, 76.5%)	92.7 (-130.1, 315.4)	15.7% (-26.3%, 57.7%)	-9.1 (-176.3, 158.1)	-1.7% (-32.9%, 29.5%)	147.1 (-38.1, 332.4)	27.8% (-13.8%, 69.4%)
All Other Outpatient Costs	246.5 (-1160.4, 1653.3)	7.0% (-35.0%, 49.0%)	152.9 (-989.2, 1295.0)	5.3% (-36.2%, 46.8%)	-333.7 (-1556.5, 889.0)	-10.5% (-45.6%, 24.7%)	-108.0 (-1572.6, 1356.5)	-2.9% (-40.7%, 35.0%)

eTable 7: Results from Multivariable Difference-in-Differences Analyses[a] Comparing Patients Undergoing SG vs. RYGB from 2008 to 2016 Across Categories of Ambulatory Care Costs & Use among the people with 4 years of follow-up

a. Difference-in-Differences analyses adjusting for all matched variables were used to generate between-group estimates for change in each outcome, at each time period, relative to a preoperative baseline period spanning months -24 to -13 before the index surgical date. We selected year -2 as the preoperative baseline for comparison because the year immediately before surgery represents a very high utilization time, due to pre-operative workup.

b. Absolute differences in each period refer to the estimated actual change in costs among SG patients minus that in RYGB patients in that segment versus baseline (months -24 to -13), accounting for all other periods.

c. Relative differences in each period refer to the estimated relative difference between SG and RYGB patients versus baseline, accounting for all other periods.

d. p-value <0.05

e. p-value <0.01

	Post-Operative Year 1, SG vs. RYGB		Post-Operative Year 2, SG vs. RYGB		Post-Operative Year 3, SG vs. RYGB		Post-Operative Year 4, SG vs. RYGB	
	Absolute Difference[b] (95% CI)	Relative Difference[c] (%) (95% CI)	Absolute Difference (95% CI)	Relative Difference (%) (95% CI)	Absolute Difference (95% CI)	Relative Difference (%) (95% CI)	Absolute Difference (95% CI)	Relative Difference (%) (95% CI)
PRESCRIPTION ENCOUNTERS								
Cardiometabolic prescription fills	0.7[f] (0.3, 1.1)	16.6%[e] (6.3%, 26.9%)	1.1[f] (0.7, 1.5)	31.0%[f] (16.6%, 45.5%)	1.5[f] (0.9, 2.1)	42.2%[f] (21.5%, 62.8%)	1.7[f] (0.8, 2.6)	42.5%[e] (13.7%, 71.2%)
All other prescription fills	-0.5 (-1.4, 0.5)	-3.0% (-9.0%, 2.9%)	-0.1 (-1.2, 0.9)	-1.0% (-8.3%, 6.3%)	0.4 (-1.0, 1.9)	2.8% (-7.2%, 12.7%)	1.4 (-0.5, 3.3)	10.1% (-4.5%, 24.8%)
OFFICE VISIT ENCOUNTERS								
Specialist visits	0.0 (-0.6, 0.5)	-1.1% (-17.4%, 15.2%)	-0.1 (-0.6, 0.3)	-4.9% (-22.9%, 13.0%)	-0.2 (-0.6, 0.2)	-10.1% (-27.3%, 7.2%)	0.1 (-0.2, 0.5)	5.9% (-11.6%, 23.5%)
PCP visits	0.2 (-0.1, 0.4)	8.8% (-4.3%, 21.9%)	0.1 (-0.1, 0.4)	8.9% (-5.0%, 22.7%)	0.2 (-0.1, 0.4)	11.2% (-4.7%, 27.2%)	0.2 (0.0, 0.4)	15.5%[d] (0.2%, 30.8%)
LABORATORY ENCOUNTERS								
Nutrition labs	-1.2[d] (-2.2, -0.2)	-20.0%[e] (-34.0%, -6.0%)	-0.8[d] (-1.5, -0.2)	-24.3%[e] (-39.2%, -9.5%)	-0.5 (-1.0, 0.0)	-20.3%[d] (-38.3%, -2.3%)	-0.7[d] (-1.2, -0.1)	-30.4%[e] (-48.8%, -11.9%)
All other labs	-2.5[e] (-4.1, -1.0)	-14.5%[f] (-22.4%, -6.7%)	-2.5[e] (-4.1, -0.8)	-17.4%[f] (-27.0%, -7.7%)	-0.7 (-2.3, 0.9)	-5.7% (-18.7%, 7.4%)	-0.3 (-3.2, 2.6)	-2.3% (-26.3%, 21.6%)
RADIOLOGY ENCOUNTERS								
Abdomen/pelvic imaging	-0.2 (-0.4, 0.1)	-18.7% (-38.8%, 1.5%)	-0.2 (-0.5, 0.0)	-22.7%[d] (-44.6%, -0.8%)	-0.1 (-0.3, 0.1)	-14.4% (-44.3%, 15.5%)	-0.1 (-0.4, 0.1)	-19.7% (-51.6%, 12.1%)
All other imaging	0.1 (-0.3, 0.4)	2.7% (-10.2%, 15.6%)	0.2 (-0.2, 0.6)	6.2% (-8.5%, 20.9%)	0.4 (-0.1, 1.0)	14.1% (-6.3%, 34.6%)	0.3 (-0.3, 0.9)	9.0% (-11.5%, 29.5%)

eTable 8: Results from Multivariable Difference-in-Differences Analysesa Comparing Patients Undergoing SG vs. RYGB Between 2008-2016 Across Sub-Outcomes of Ambulatory Care Costs & Use Among the People With 4 Years of Follow-Up

a. Difference-in-Differences analyses adjusting for all matched variables were used to generate between-group estimates for change in each outcome, at each time period, relative to a preoperative baseline period spanning months -24 to -13 before the index surgical date. We selected year -2 as the preoperative baseline for comparison because the year immediately before surgery represents a very high utilization time, due to pre-operative workup.

b. Absolute differences in each period refer to the estimated actual change in costs among SG patients minus that in RYGB patients in that segment versus baseline (months -24 to -13), accounting for all other periods.

c. Relative differences in each period refer to the estimated relative difference between SG and RYGB patients versus baseline, accounting for all other periods.

d. p-value <0.05

e. p-value <0.01

f. p-value <0.001

eTable 9. Stata Outputs for All Models[a]		
Outcome	Main Cohort	Sensitivity Cohort
Total Ambulatory Care Costs	<pre>--
Robust
tot_ambcst	Coef. Std. Err. z P>|z| [95% Conf. Interval]
------------------------+---
tot_ambcst
          yr |
          1 | .1300821 .0522103   2.49 0.013   .0277517   .2324124
          2 | .1046842 .0587896   1.78 0.075 -
.0105413   .2199097
          3 | .0366438 .0725058   0.51 0.613 -
.1054649   .1787526
          4 | .1130782 .1034547   1.09 0.274 -
.0896893   .3158456
            |
       1.sg | .0351299 .0468238   0.75 0.453 -
.0566431   .1269029
            |
       sg#yr |
        1 1 | -.0630903   .058405   -1.08 0.280   -.177562   .0513815
        1 2 | -.0923825 .0675037   -1.37 0.171 -
.2246873   .0399224
        1 3 | -.0308911 .0822194   -0.38 0.707 -
.1920381   .1302559
        1 4 | .0271538 .1172427   0.23 0.817 -
.2026377   .2569452
            |
    age_group |
          2 | .0868346 .0854009   1.02 0.309 -
.0805482   .2542173
          3 | .156703 .0839819   1.87 0.062 -.0078985   .3213045
          4 | .315266 .0858431   3.67 0.000   .1470166   .4835153
            |
        race |
          2 | -.3271405 .0864463 -3.78 0.000 -.4965721 -
.1577089
          3 | -.0635124 .0397032 -1.60 0.110 -
.1413293   .0143044
          4 | -.0368569 .0681548 -0.54 0.589 -.1704378   .096724
          5 | -.0889176 .1109678 -0.80 0.423 -
.3064105   .1285754
            |
          ed |
          2 | .0009908 .0471978   0.02 0.983 -
.0915151   .0934968
          3 | -.0412176 .0787256 -0.52 0.601   -.195517   .1130817
          4 | -.2372242 .1080496 -2.20 0.028 -.4489975 -
.0254508</pre> | <pre>--

            | Robust
   tot_ambcst | Coef. Std. Err.   z   P>|z|
[95% Conf. Interval]
------------------------+---
----
tot_ambcst |
          yr |
          1 | -.0677238 .0655575 -1.03 0.302 -
.1962142   .0607666
          2 | -.194411 .0725319 -2.68 0.007 -
.3365709 -.0522511
          3 | -.1760789 .0746916 -2.36 0.018 -
.3224717 -.0296861
          4 | -.0872408   .079984 -1.09 0.275 -
.2440066   .069525
            |
       1.sg | .0552233 .0816563   0.68 0.499 -
.1048201   .2152666
            |
       sg#yr |
        1 1 | .1358632 .0969947   1.40 0.161 -
.0542429   .3259692
        1 2 | .1044227 .1005147   1.04 0.299 -
.0925825   .3014279
        1 3 | .0333842 .1028376   0.32 0.745 -
.1681737   .2349421
        1 4 | .167206 .1078096   1.55 0.121 -
.044097   .378509
            |
    age_group |
          2 | .3106588 .1498167   2.07 0.038 -
.0170235   .6042941
          3 | .4183738 .1377426   3.04 0.002 -
.1484032   .6883444
          4 | .6154705 .1426143   4.32 0.000 -
.3359515   .8949894
            |
        race |
          2 | .3230256 .2585262   1.25 0.211 -
.1836764   .8297276
          3 | .0058771 .0783017   0.08 0.940 -
.1475913   .1593456
          4 | .0553605 .1218815   0.45 0.650 -
.1835229   .2942439</pre> |

```
                   |
             pov |
               2 |   .0152685   .0553875    0.28   0.783   -.093289    .123826
               3 |    .013897   .0533524    0.26   0.794   -.0906717   .1184658
               4 |   .0780193   .0674812    1.16   0.248   -.0542414   .21028
                   |
         1.acgge3 |  .6108935   .0371825   16.43   0.000   .5380171    .6837699
         1.female |  .1497811   .0450562    3.32   0.001   .0614726    .2380896
   1.hypertension |  .2273961   .0391821    5.80   0.000   .1506006    .3041916
            _cons |  8.137427   .1005821   80.90   0.000   7.94029     8.334564
-------------------------+---------------------------------------------------------
inflate            |
              yr |
               1 |  -1.887072   .9063757   -2.08   0.037   -3.663536   -.1106087
               2 |   .6073201   .3205366    1.89   0.058   -.0209202   1.23556
               3 |   1.199078   .3175239    3.78   0.000   .5767421    1.821413
               4 |   1.551541   .3264369    4.75   0.000   .9117366    2.191346
                   |
            1.sg |   .603472    .2281868    2.64   0.008   .1562342    1.05071
                   |
           sg#yr |
             1 1 |  -.2027465   .9708919   -0.21   0.835   -2.10566    1.700167
             1 2 |  -.3879155   .3539717   -1.10   0.273   -1.081687   .3058563
             1 3 |  -.6284691   .354131    -1.77   0.076   -1.322553   .0656149
             1 4 |  -.8756574   .3779266   -2.32   0.021   -1.61638    -.1349348
                   |
       age_group |
               2 |  -.2970284   .2389247   -1.24   0.214   -.7653122   .1712553
               3 |  -.6345757   .2444575   -2.60   0.009   -1.113704   -.1554477
               4 |  -.694009    .3759116   -1.85   0.065   -1.430782   .0427642
                   |
            race |
               2 |   .3325408   .3742335    0.89   0.374   -.4009434   1.066025
               3 |   .0611953   .270663     0.23   0.821   -.4692944   .591685
               4 |  -.1840912   .2436136   -0.76   0.450   -.6615651   .2933827
               5 |   .6184974   .4217721    1.47   0.143   -.2081608   1.445156
                   |
              ed |
               2 |  -.2800716   .2134251   -1.31   0.189   -.698377    .1382339
```

```
               5 |  -.2810962   .4522778   -0.62   0.534   -1.167544   .605352
                   |
              ed |
               2 |  -.0780973   .0922551   -0.85   0.397   -.258914    .1027193
               3 |  -.4125243   .1227459   -3.36   0.001   -.6531019   -.1719467
               4 |  -.3874549   .1925998   -2.01   0.044   -.7649436   -.0099661
                   |
             pov |
               2 |   .0188421   .09851      0.19   0.848   -.1742338   .2119181
               3 |   .2213879   .1087444    2.04   0.042   .0082529    .434523
               4 |   .2556868   .1273706    2.01   0.045   .0060451    .5053285
                   |
         1.acgge3 |  .6487832   .0793372    8.18   0.000   .4932852    .8042813
         1.female |  .291947    .0770203    3.79   0.000   .1409899    .4429041
   1.hypertension |  .2166843   .074549      2.91   0.004   .070571     .3627977
            _cons |  7.744628   .1658379   46.70   0.000   7.419592    8.069665
-------------------------+---------------------------------------------------------
inflate            |
              yr |
               1 |  -2.614939   .8624431   -3.03   0.002   -4.305297   -.9245819
               2 |  -.6323648   .4651289   -1.36   0.174   -1.544001   .279271
               3 |   .2695607   .4075011    0.66   0.508   -.5291269   1.068248
               4 |   .0691787   .4136985    0.17   0.867   -.7416554   .8800129
                   |
            1.sg |   .1177539   .4342191    0.27   0.786   -.7332999   .9688078
                   |
           sg#yr |
             1 1 |   .7559106   1.201746    0.63   0.529   -1.599468   3.111289
             1 2 |  -.1134044   .6929083   -0.16   0.870   -1.47148    1.244671
             1 3 |  -.5701252   .6080146   -0.94   0.348   -1.761812   .6215616
```

```
         3 |   -.02529   .3758617   -0.07  0.946   -.7619654    .7113853
         4 |   .5431136   .4204263    1.29  0.196   -
.2809067    1.367134
           |
       pov |
         2 |   .1568016   .2188591    0.72  0.474   -
.2721544    .5857576
         3 |   .4146625   .2540164    1.63  0.103   -
.0832005    .9125255
         4 |   .2567472   .2567622    1.00  0.317   -
.2464975    .7599918
           |
   1.acgge3 |  -.5785157   .2774364   -2.09  0.037  -1.122281   -.0347504
   1.female |  -.8606736   .1675068   -5.14  0.000  -1.188981   -.5323663
1.hypertension |  -.5426591   .2207914   -2.46  0.014   -.9754023  -.1099158
      _cons |  -2.882227   .4346165   -6.63  0.000  -3.734059   -2.030394
-------------+----------------------------------------------------------
    /lnalpha |
| .2142134   .0143763   14.90  0.000   .1860363   .2423904
-------------+----------------------------------------------------------
      alpha |  1.238887   .0178106              1.204466   1.274292
```

```
       1 4 |  -.1529369   .5812277   -0.26  0.792   -
1.292122    .9862486
           |
 age_group |
         2 |  -.7760431   .6082261   -1.28  0.202   -
1.968144    .4160581
         3 |  -.5796573   .5877958   -0.99  0.324   -
1.731716    .5724014
         4 |  -.5895225   .6761549   -0.87  0.383   -
1.914762    .7357168
           |
      race |
         2 |   -.388123   .8273418   -0.47  0.639   -
2.009683    1.233437
         3 |  -.0379152   .311015   -0.12  0.903   -
.6474935    .571663
         4 |   .3492366   .4033844    0.87  0.387   -
.4413822    1.139855
         5 |   1.101736   1.118069    0.99  0.324   -
1.089639    3.293111
           |
        ed |
         2 |    .64808   .4335967    1.49  0.135   -
.2017539    1.497914
         3 |  -.0635765   .6639759   -0.10  0.924   -
1.364945    1.237792
         4 |   1.910026   .7239774    2.64  0.008
.491056    3.328995
           |
       pov |
         2 |  -.3100367   .4216689   -0.74  0.462   -
1.136493    .5164192
         3 |  -.5767908   .4289469   -1.34  0.179   -
1.417511    .2639296
         4 |  -.5389637   .5822057   -0.93  0.355   -
1.680066    .6021385
           |
   1.acgge3 |  -.2344092   .3537899   -0.66  0.508   -
.9278246    .4590063
   1.female |  -.9558854   .3003114   -3.18  0.001   -
1.544485   -.3672859
1.hypertension |  -.5177437   .3231409   -1.60  0.109   -
1.151088    .1156009
      _cons |  -2.021291   .6928652   -2.92  0.004   -
3.379282   -.6633005
-------------+------------------------------------------------
------------
    /lnalpha |   .1619531   .0259081    6.25  0.000
.1111741    .2127322
```

```
------------------------+------------------------------------------------
------------
      alpha |  1.175805   .0304629
1.117589    1.237053
------------------------------------------------------------------------
------------
```

Laboratory Costs

```
------------------------------------------------------------------------
           |             Robust
  lab_costs |    Coef.   Std. Err.     z    P>|z|    [95% Conf. Interval]
-----------------------+------------------------------------------------
lab_costs  |
       yr |
        1 |  .6543112   .0514338   12.72   0.000    .5535028    .7551195
        2 |   .510148   .0561491    9.09   0.000    .4000979    .6201982
        3 |  .4809451   .1080338    4.45   0.000    .2692028    .6926874
        4 |   .318169   .0880788    3.61   0.000    .1455377    .4908002
           |
     1.sg |  .0844886    .052728    1.60   0.109   -.0188564    .1878335
           |
    sg#yr |
      1 1 |  -.119187   .0589063   -2.02   0.043   -.2346412   -.0037329
      1 2 | -.1165968   .0677714   -1.72   0.085   -.2494263    .0162326
      1 3 | -.1598809   .1179095   -1.36   0.175   -.3909792    .0712175
      1 4 |  .0129087   .1119906    0.12   0.908   -.2065888    .2324061
           |
 age_group |
        2 | -.1240619   .1006061   -1.23   0.218   -.3212462    .0731225
        3 | -.1730604   .1010661   -1.71   0.087   -.3711464    .0250255
        4 | -.1375727   .1000431   -1.38   0.169   -.3336536    .0585082
           |
     race |
        2 |  -.126456   .0848695   -1.49   0.136   -.2927972    .0398852
        3 |  .0204672   .0419857    0.49   0.626   -.0618232    .1027577
        4 |  .0264334   .0543673    0.49   0.627   -.0801245    .1329913
        5 |  .0716158   .1621349    0.44   0.659   -.2461627    .3893944
           |
       ed |
        2 | -.0022996   .0503296   -0.05   0.964   -.1009438    .0963446
        3 |  .0407735   .0673051    0.61   0.545   -.0911422    .1726892
        4 | -.2027472   .1029343   -1.97   0.049   -.4044947   -.0009997
           |
      pov |
        2 |  .0859617   .0511911    1.68   0.093    -.014371    .1862943
        3 |  .0593773   .0487762    1.22   0.223   -.0362223    .1549769
        4 |  .0680626   .0627294    1.09   0.278   -.0548848    .1910099
           |
  1.acgge3 |  .3573754   .0360761    9.91   0.000    .2866677    .4280832
  1.female |  .1927742   .0438478    4.40   0.000    .1068341    .2787142
1.hypertension |  .0896938   .0363785   2.47   0.014    .0183933    .1609944
     _cons |  5.788467   .1140478   50.75   0.000    5.564937    6.011996
```

```
------------------------------------------------------------------------
-----
           |             Robust
  lab_costs |    Coef.   Std. Err.     z    P>|z|    [95%
Conf. Interval]
-----------------------+------------------------------------------------
------
lab_costs        |
       yr |
        1 |  .714406    .081109    8.81   0.000
.5554352    .8733767
        2 |  .4018225   .0885895    4.54   0.000
.2281902    .5754548
        3 |  .2961998   .0936746    3.16   0.002
.112601    .4797986
        4 |   .21744   .0922073    2.36   0.018
.036717    .3981629
           |
     1.sg |  .196472   .0947578    2.07   0.038
.0107501    .3821939
           |
    sg#yr |
      1 1 | -.0992007   .108356    -0.92   0.360   -
.3115746    .1131732
      1 2 | -.0747695   .1203048   -0.62   0.534   -
.3105626    .1610237
      1 3 | -.0796521   .1264009   -0.63   0.529   -
.3273934    .1680892
      1 4 |  .0609012   .1315611    0.46   0.643   -
.1969538    .3187561
           |
 age_group |
        2 |  .1532045   .2054688    0.75   0.456   -
.2495069    .5559159
        3 |  .114744   .1905635    0.60   0.547   -
.2587536    .4882416
        4 |  .2456324   .1898106    1.29   0.196   -
.1263895    .6176542
           |
     race |
        2 |  .4225373   .2742105    1.54   0.123   -
.1149054    .9599799
        3 |  .0922739   .085115     1.08   0.278   -
.0745485    .2590963
```

```
------------------------+----------------------------------------------------------------
inflate         |
          yr |
         1 | -1.146851   .178628    -6.42  0.000   -1.496956  -.7967466
         2 |  -.208396  .1376768    -1.51  0.130   -.4782376   .0614455
         3 |  .3453693  .1459005     2.37  0.018    .0594095   .6313291
         4 |  .4394253  .1517111     2.90  0.004     .142077   .7367736
           |
      1.sg | -.1692589  .1074407    -1.58  0.115   -.3798389   .0413211
           |
      sg#yr |
       1 1 |  .2096964  .1952363     1.07  0.283   -.1729596   .5923525
       1 2 |  .3567769  .1526478     2.34  0.019    .0575927    .655961
       1 3 |  .2192747  .1636082     1.34  0.180   -.1013916   .5399409
       1 4 |  .1422229  .1769418     0.80  0.422   -.2045765   .4890224
           |
 age_group |
         2 |  .1763324  .1401416     1.26  0.208   -.0983402    .451005
         3 |  .0448019  .1385184     0.32  0.746   -.2266892    .316293
         4 | -.0877634  .1510705    -0.58  0.561   -.3838561   .2083294
           |
      race |
         2 |  .0061637  .1784682     0.03  0.972   -.3436276    .355955
         3 | -.1659573  .0879081    -1.89  0.059    -.338254    .0063394
         4 | -.0190746  .0970106    -0.20  0.844   -.2092119   .1710626
         5 | -.1490092  .2585861    -0.58  0.564   -.6558286   .3578101
           |
        ed |
         2 |  .0035455  .0885094     0.04  0.968   -.1699297   .1770206
         3 |    .29987  .1300658     2.31  0.021    .0449457   .5547943
         4 |  .1540456  .2066279     0.75  0.456   -.2509376   .5590287
           |
       pov |
         2 |  .0525246  .0928111     0.57  0.571   -.1293817    .234431
         3 |  .1182521  .0997656     1.19  0.236   -.0772849    .313789
         4 | -.0063422  .1183861    -0.05  0.957   -.2383748   .2256903
           |
   1.acgge3 | -.4205963   .079132    -5.32  0.000   -.5756921  -.2655005
   1.female | -.6953134   .072172    -9.63  0.000    -.836768  -.5538588
1.hypertension | -.3545765  .0740219  -4.79  0.000   -.4996568  -.2094963
      _cons | -.6874381  .1907888    -3.60  0.000   -1.061377  -.3134989
------------------------+----------------------------------------------------------------
   /lnalpha |  .0997812   .016799     5.94  0.000    .0668558   .1327066
------------------------+----------------------------------------------------------------
      alpha |  1.104929  .0185617                    1.069141   1.141915
------------------------------------------------------------------------------------------
```

```
         4 |  .0015828  .1230537     0.01  0.990   -.2395981   .2427637
         5 | -.5625088   .186767    -3.01  0.003   -.9285654  -.1964523
           |
        ed |
         2 | -.1094275  .1002343    -1.09  0.275   -.3058831   .0870281
         3 | -.4105837  .1505509    -2.73  0.006   -.7056581  -.1155094
         4 | -.2166796   .162916    -1.33  0.184   -.5359891   .1026298
           |
       pov |
         2 |  .2127004  .0893527     2.38  0.017    .0375724   .3878285
         3 |  .4038998  .1089802     3.71  0.000    .1903026    .617497
         4 |  .4291443  .1188116     3.61  0.000    .1962778   .6620108
           |
   1.acgge3 |  .3766673  .0651947     5.78  0.000    .2488881   .5044464
   1.female |  .3067246  .0750785     4.09  0.000    .1595735   .4538756
1.hypertension |  .0905037  .0660813   1.37  0.171   -.0390132   .2200207
      _cons |  5.093253  .2230815    22.83  0.000    4.656021   5.530485
------------------------+------------------------------------------------------------------
inflate         |
          yr |
         1 | -.8811975   .212489    -4.15  0.000   -1.297668  -.4647267
         2 | -.4394802  .1991329    -2.21  0.027   -.8297736  -.0491868
         3 |  .3219254  .2329782     1.38  0.167   -.1347035   .7785543
         4 |  .1395711  .1957558     0.71  0.476   -.2441033   .5232454
           |
      1.sg |  .1007296  .1963253     0.51  0.608    -.284061   .4855202
           |
      sg#yr |
       1 1 | -.1264513  .3063801    -0.41  0.680   -.7269453   .4740426
       1 2 | -.0253249   .277608    -0.09  0.927   -.5694265   .5187767
```

```
          1 3 |  -.2830594   .2949007    -0.96   0.337    -
.8610541    .2949353
          1 4 |  -.2295359   .2680038    -0.86   0.392    -
.7548137    .2957418
              |
    age_group |
            2 |  -.2858891   .2998832    -0.95   0.340    -
.8736494    .3018712
            3 |  -.1010193   .2915515    -0.35   0.729    -
.6724497    .4704111
            4 |  -.1890838    .313294    -0.60   0.546    -
.8031288    .4249612
              |
         race |
            2 |  -.1511814   .3090761    -0.49   0.625    -
.7569595    .4545967
            3 |  -.0008067   .1468763    -0.01   0.996    -
.2886789    .2870655
            4 |    .071084   .2127238     0.33   0.738    -
.345847     .488015
            5 |   1.350665    .445764     3.03   0.002
.4769836   2.224346
              |
           ed |
            2 |    .023012   .1853796     0.12   0.901    -
.3403255    .3863494
            3 |   .2584854   .2412624     1.07   0.284    -
.2143801    .731351
            4 |   .4501678   .4974441     0.90   0.365    -
.5248047    1.42514
              |
          pov |
            2 |  -.2006706   .1753914    -1.14   0.253    -
.5444314    .1430901
            3 |  -.1805451   .1678535    -1.08   0.282    -
.5095319    .1484418
            4 |   .1935606   .2144063     0.90   0.367    -
.2266681    .6137893
              |
     1.acgge3 |  -.4815896   .1493939    -3.22   0.001    -
.7743962   -.1887829
     1.female |  -.8324693   .1296967    -6.42   0.000    -
1.08667   -.5782685
1.hypertension |   -.243721   .1375548    -1.77   0.076    -
.5133234    .0258814
         _cons |  -.6352278   .3352326    -1.89   0.058    -
1.292272    .021816
-----------------------+--------------------------------------------------------
------
```

| | | ```
                   /lnalpha |   .0866247   .0358974    2.41  0.016
.0162672   .1569823
--------------------------+-------------------------------------------------------------
------
                     alpha |   1.090487   .0391456                          1.0164
1.169975
--------------------------------------------------------------------------------------
-----
``` |
| Office Visit Costs | ```
--------------------------------------------------------------------------------
                   |            Robust
    office_vst_costs |   Coef.  Std. Err.     z   P>|z|    [95% Conf. Interval]
-----------------------+--------------------------------------------------------
office_vst_costs      |
               yr |
              1 |   .075219   .0340176    2.21  0.027    .0085457   .1418923
              2 |  .0480531   .0361069    1.33  0.183   -.0227152   .1188213
              3 |  .0331293   .0439789    0.75  0.451   -.0530678   .1193264
              4 |  .0907001   .0683672    1.33  0.185   -.0432972   .2246974
                |
           1.sg |  .0073287   .0360242    0.20  0.839   -.0632774   .0779348
                |
            sg#yr |
             1 1 | -.0417355   .0379619   -1.10  0.272   -.1161395   .0326685
             1 2 | -.0085339   .0422667   -0.20  0.840   -.0913751   .0743074
             1 3 | -.0050072   .0519745   -0.10  0.923   -.1068754    .096861
             1 4 | -.0465237   .0792093   -0.59  0.557   -.2017711   .1087237
                |
         age_group |
              2 | -.0359688   .0546167   -0.66  0.510   -.1430156    .071078
              3 | -.0134491    .055215   -0.24  0.808   -.1216685   .0947703
              4 |  .0307841   .0539735    0.57  0.568   -.0750021   .1365703
                |
             race |
              2 |    -.1154   .0573267   -2.01  0.044   -.2277583  -.0030416
              3 |  .0238739   .0317576    0.75  0.452   -.0383699   .0861176
              4 | -.0528301   .0446994   -1.18  0.237   -.1404393   .0347792
              5 |  .1921688   .1616374    1.19  0.234   -.1246347   .5089723
                |
               ed |
              2 | -.1223388   .0338144   -3.62  0.000   -.1886138  -.0560639
              3 | -.1077054   .0477258   -2.26  0.024   -.2012463  -.0141646
              4 | -.2989755   .0923671   -3.24  0.001   -.4800116  -.1179393
                |
              pov |
              2 | -.0085615   .0402488   -0.21  0.832   -.0874478   .0703248
              3 | -.0148553   .0414081   -0.36  0.720   -.0960138   .0663032
              4 |  .0440425   .0485688    0.91  0.365   -.0511506   .1392356
                |
        1.acgge3 |  .4346333   .0271146   16.03  0.000    .3814897   .4877769
         1.female |  .2120518   .0324733    6.53  0.000    .1484052   .2756983
``` | ```
--------------------------------------------------------------------------------
-----
                   |            Robust
    office_vst_costs |    Coef.  Std. Err.     z   P>|z|    [95%
Conf. Interval]
-----------------------+--------------------------------------------------------
------
office_vst_costs      |
               yr |
              1 | -.0607606   .0654769   -0.93  0.353    -
.189093   .0675719
              2 | -.1575532    .064687   -2.44  0.015    -
.2843375   -.030769
              3 |  -.171027   .0638627   -2.68  0.007    -
.2961956  -.0458584
              4 | -.0911155   .0601077   -1.52  0.130    -
.2089245   .0266935
                |
           1.sg | -.0178674   .0652206   -0.27  0.784    -
.1456975   .1099626
                |
            sg#yr |
             1 1 |  .0667921    .081787    0.82  0.414    -
.0935075   .2270916
             1 2 |  .0512234   .0832348    0.62  0.538    -
.1119138   .2143607
             1 3 | -.0190284   .0830361   -0.23  0.819    -
.1817761   .1437193
             1 4 |  .0175208   .0802448    0.22  0.827    -
.1397561   .1747976
                |
         age_group |
              2 |  .0977376   .1129564    0.87  0.387    -
.1236528    .319128
              3 |  .1559018    .104499    1.49  0.136    -
.0489125    .360716
              4 |  .2084051   .1071351    1.95  0.052    -
.0015757    .418386
                |
             race |
              2 |  .0981403   .2158659    0.45  0.649    -
.3249492   .5212298
``` |

```
1.hypertension |  .1367799  .0288606    4.74  0.000    .0802143   .1933456
        _cons |  6.352741  .0709954   89.48  0.000    6.213593    6.49189
-------------+----------------------------------------------------------
inflate      |
          yr |
           1 | -1.242991  .2900438   -4.29  0.000   -1.811466  -.6745152
           2 | -.0765658   .170181    -0.45  0.653   -.4101144   .2569829
           3 |  .5250541  .2227645    2.36  0.018    .0884437   .9616646
           4 |  .5109197  .2230448    2.29  0.022      .07376    .9480795
             |
        1.sg | -.0096824  .1508411   -0.06  0.949   -.3053255   .2859606
             |
       sg#yr |
         1 1 | -.0265249  .3211038   -0.08  0.934   -.6558769   .6028271
         1 2 |  .1295696  .1937029    0.67  0.504   -.2500811   .5092202
         1 3 | -.0186387  .2430863   -0.08  0.939    -.495079   .4578016
         1 4 |  .0723802  .2530549    0.29  0.775   -.4235983   .5683588
             |
   age_group |
           2 |  .0581127  .1668062    0.35  0.728   -.2688215   .3850469
           3 | -.2542378  .1726173   -1.47  0.141   -.5925614   .0840858
           4 |  -.238496  .2206506   -1.08  0.280   -.6709632   .1939713
             |
        race |
           2 |  .2561673  .2350851    1.09  0.276   -.2045911   .7169257
           3 | -.0068203   .123037    -0.06  0.956   -.2479685   .2343278
           4 |  .1722662  .2075134    0.83  0.406   -.2344526    .578985
           5 |  .1930246   .318762     0.61  0.545   -.4317375   .8177867
             |
          ed |
           2 | -.1120654  .1152337   -0.97  0.331   -.3379193   .1137884
           3 |  .1761718  .2360263    0.75  0.455   -.2864312   .6387749
           4 |  .0973318   .258735     0.38  0.707   -.4097795   .6044431
             |
         pov |
           2 |  .1318328  .1642655    0.80  0.422   -.1901218   .4537873
           3 |  .3337268   .163095     2.05  0.041    .0140664   .6533871
           4 |  .1493999  .1817465    0.82  0.411   -.2068167   .5056166
             |
    1.acgge3 | -.5400312  .1224451   -4.41  0.000   -.7800192  -.3000433
    1.female | -.6752906  .1002319   -6.74  0.000   -.8717415  -.4788397
1.hypertension | -.3907099  .1134496   -3.44  0.001    -.613067  -.1683528
        _cons | -1.680289  .2491992   -6.74  0.000   -2.168711  -1.191868
-------------+----------------------------------------------------------
    /lnalpha | -.4395678  .0171343  -25.65  0.000   -.4731504  -.4059853
-------------+----------------------------------------------------------
       alpha |  .6443148  .0110399                   .6230363     .66632
------------------------------------------------------------------------
```

```
           3 |  .0618011  .0615591    1.00  0.315  -
.0588524   .1824547
           4 | -.1277594  .0871183   -1.47  0.143  -
.2985081   .0429894
           5 | -.2065822   .229941    -0.90  0.369  -
.6572583   .2440939
             |
          ed |
           2 | -.1371049  .0709971   -1.93  0.053  -
.2762565   .0020468
           3 | -.3566859  .0958916   -3.72  0.000  -
.5446299  -.1687418
           4 | -.5391232  .1366557   -3.95  0.000  -
.8069635  -.2712829
             |
         pov |
           2 |  .0656184  .0826018    0.79  0.427  -
.0962781   .2275149
           3 |  .0811099  .0813158    1.00  0.319  -
.0782662   .2404859
           4 |  .2475778  .0954419    2.59  0.009
.0605152   .4346404
             |
    1.acgge3 |  .4370788  .0631562    6.92  0.000
.3132949   .5608627
    1.female |  .3495951  .0561137    6.23  0.000
.2396143   .4595759
1.hypertension |  .1225266  .0574756    2.13  0.033
.0098764   .2351768
        _cons |  6.101667  .1317774   46.30  0.000
5.843388   6.359946
-------------+---------------------------------------------------
------
inflate      |
          yr |
           1 |  -1.40052  .3042071   -4.60  0.000  -
1.996755  -.8042848
           2 | -.7259542  .2442252   -2.97  0.003  -
1.204627  -.2472816
           3 | -.3423549  .2491203   -1.37  0.169  -
.8306218   .1459119
           4 |  -.027969  .2714447   -0.10  0.918  -
.5599909   .5040529
             |
        1.sg | -.0943531   .251862    -0.37  0.708  -
.5879935   .3992873
             |
       sg#yr |
         1 1 |  .2388709  .4575379    0.52  0.602  -
.6578869  1.135629
```

```
          1 2 |  .2103389   .3709372    0.57   0.571   -.5166847    .9373625
          1 3 |  .0094246   .3637818    0.03   0.979   -.7035746    .7224238
          1 4 |  -.183647   .3754756   -0.49   0.625   -.9195656    .5522717
              |
    age_group |
            2 | -.3685856   .3869402   -0.95   0.341   -1.126974    .3898034
            3 | -.4789782   .3833776   -1.25   0.212   -1.230385    .2724282
            4 | -.4778044   .4123968   -1.16   0.247   -1.286087    .3304785
              |
         race |
            2 |  .2532863   .3971284    0.64   0.524   -.525071    1.031644
            3 | -.1237677   .1893061   -0.65   0.513   -.4948008    .2472655
            4 |  .1707448   .2612721    0.65   0.513   -.3413391    .6828286
            5 |  1.640979   .5146359    3.19   0.001    .6323112    2.649647
              |
           ed |
            2 | -.0302427   .2298874   -0.13   0.895   -.4808137    .4203283
            3 |  .0526961   .2934373    0.18   0.857   -.5224304    .6278226
            4 |  .3763782   .4484805    0.84   0.401   -.5026273    1.255384
              |
          pov |
            2 |  .1418385   .2662611    0.53   0.594   -.3800237    .6637007
            3 |  .1552389   .2402878    0.65   0.518   -.3157165    .6261943
            4 |  .6339783   .3061852    2.07   0.038    .0338664    1.23409
              |
      1.acgge3 | -.4091297   .2140094   -1.91   0.056   -.8285805    .0103211
      1.female | -.8177007   .1746598   -4.68   0.000   -1.160028   -.4753738
 1.hypertension | -.3437229   .1780099   -1.93   0.053   -.6926159    .0051702
        _cons | -1.212779   .4521288   -2.68   0.007   -2.098935   -.3266227
```

Radiology Costs		

Top-right block:

```
------------------------+----------------------------------------------------
------
    /lnalpha |  -.4439185   .0326648   -13.59   0.000    -
.5079403   -.3798968
------------------------+----------------------------------------------------
------
       alpha |   .6415177    .020955                       .6017337
.683932
----------------------------------------------------------------------------
-----
```

Radiology Costs — left panel:

```
-------------------------------------------------------------------------
             |             Robust
  radio_costs |    Coef.   Std. Err.     z    P>|z|    [95% Conf. Interval]
-------------+-----------------------------------------------------------
radio_costs  |
         yr  |
          1  |  -.0983777  .0578583   -1.70   0.089   -.2117779   .0150225
          2  |   .1054298  .0741645    1.42   0.155    -.03993    .2507897
          3  |   .0726061    .0812     0.89   0.371   -.086543   .2317552
          4  |   .081345   .0952008    0.85   0.393   -.1052451  .2679352
             |
        1.sg |   .067767   .0561294    1.21   0.227   -.0422447  .1777786
             |
       sg#yr |
         1 1 |  -.0167109  .0714787   -0.23   0.815   -.1568067  .1233849
         1 2 |  -.0602862  .0881316   -0.68   0.494   -.2330211  .1124486
         1 3 |  -.0351873  .0976163   -0.36   0.718   -.2265117   .156137
         1 4 |   .0498874   .123319    0.40   0.686   -.1918134  .2915882
             |
   age_group |
          2  |   .1172367  .0826326    1.42   0.156   -.0447202  .2791935
          3  |  -.0268034  .0794243   -0.34   0.736   -.1824722  .1288653
          4  |   .0853917  .0799103    1.07   0.285   -.0712297   .242013
             |
        race |
          2  |  -.118746   .0965353   -1.23   0.219   -.3079518  .0704598
          3  |  -.0073602  .0436332   -0.17   0.866   -.0928798  .0781594
          4  |  -.0061193  .0644619   -0.09   0.924   -.1324623  .1202236
          5  |  -.2268979   .086144   -2.63   0.008    -.395737  -.0580588
             |
         ed  |
          2  |   .0138034   .053446    0.26   0.796   -.0909488  .1185556
          3  |  -.0362485  .0948081   -0.38   0.702    -.222069  .1495719
          4  |  -.2000782  .1555689   -1.29   0.198   -.5049876  .1048312
             |
        pov  |
          2  |   .0284413  .0505201    0.56   0.573   -.0705764  .1274589
          3  |   .0803888  .0530246    1.52   0.130   -.0235376  .1843152
          4  |   .0799327  .0696743    1.15   0.251   -.0566264  .2164919
             |
```

Radiology Costs — right panel:

```
-------------------------------------------------------------------------
-----
             |             Robust
  radio_costs |    Coef.   Std. Err.     z    P>|z|    [95%
Conf. Interval]
------------------------+----------------------------------------------------
------
radio_costs  |
         yr  |
          1  |  -.1431256  .1140516   -1.25   0.210   -
.3666625   .0804114
          2  |  -.0340264  .1302871   -0.26   0.794   -
.2893846   .2213317
          3  |  -.1210278  .1189006   -1.02   0.309   -
.3540687   .1120132
          4  |  -.1590116  .1201398   -1.32   0.186   -
.3944812    .076458
             |
        1.sg |  -.0542706  .1148993   -0.47   0.637   -
.2794691   .1709279
             |
       sg#yr |
         1 1 |   .1725097  .1572818    1.10   0.273   -
.1357569   .4807763
         1 2 |   .1360493  .1730008    0.79   0.432   -
.203026   .4751247
         1 3 |  -.0753803  .1537864   -0.49   0.624   -
.376796   .2260354
         1 4 |   .1641649  .1555938    1.06   0.291   -
.1407935   .4691232
             |
   age_group |
          2  |   .2485602   .222039    1.12   0.263   -
.1866283   .6837488
          3  |   .1692763  .2109729    0.80   0.422   -
.244223   .5827756
          4  |   .2919947  .2158008    1.35   0.176   -
.130967   .7149565
             |
        race |
```

```
         1.acgge3 |   .342124   .0375924     9.10  0.000    .2684443   .4158038
         1.female |  .1476077   .0499961     2.95  0.003    .0496172   .2455982
   1.hypertension |   .115009   .0411999     2.79  0.005    .0342588   .1957593
            _cons |  6.408663   .1026276    62.45  0.000    6.207517    6.60981
-----------------+----------------------------------------------------------------
inflate          |
              yr |
               1 | -.2488361   .0937757    -2.65  0.008   -.4326331  -.0650391
               2 |  .0874054   .0870921     1.00  0.316   -.0832919   .2581028
               3 |    .37234   .1193277     3.12  0.002     .138462   .6062179
               4 |  .1930033   .1295513     1.49  0.136   -.0609126   .4469192
                 |
            1.sg |  .0134136   .0820765     0.16  0.870   -.1474533   .1742806
                 |
           sg#yr |
             1 1 | -.0321957   .1072098    -0.30  0.764    -.242323   .1779317
             1 2 |  .1036199   .1011942     1.02  0.306   -.0947171   .3019569
             1 3 | -.1242938   .1344298    -0.92  0.355   -.3877714   .1391838
             1 4 |  .0431533   .1524156     0.28  0.777   -.2555757   .3418824
                 |
       age_group |
               2 |  .0075135   .1022497     0.07  0.941   -.1928923   .2079193
               3 | -.3921033   .0994185    -3.94  0.000     -.58696  -.1972466
               4 | -.5054711   .1062627    -4.76  0.000   -.7137422     -.2972
                 |
            race |
               2 |  .1946108   .1762154     1.10  0.269    -.150765   .5399865
               3 |  .0145311   .0651468     0.22  0.823   -.1131543   .1422165
               4 |  .0132058   .0924777     0.14  0.886   -.1680471   .1944587
               5 |  .1985022    .193465     1.03  0.305   -.1806822   .5776866
                 |
              ed |
               2 | -.0286574   .0764602    -0.37  0.708   -.1785167   .1212019
               3 | -.0594616   .1067218    -0.56  0.577   -.2686326   .1497093
               4 |  .0480921   .1758928     0.27  0.785   -.2966514   .3928357
                 |
             pov |
               2 | -.0069164   .0771146    -0.09  0.929   -.1580582   .1442254
               3 | -.0290853   .0782493    -0.37  0.710   -.1824511   .1242804
               4 |  -.059427   .0987537    -0.60  0.547   -.2529808   .1341267
                 |
         1.acgge3 | -.5941031   .0589617   -10.08  0.000    -.709666  -.4785402
         1.female | -1.018432   .0647073   -15.74  0.000   -1.145256  -.8916077
   1.hypertension | -.2151528   .0588317    -3.66  0.000   -.3304608  -.0998448
            _cons |  .8010272   .1344701     5.96  0.000    .5374706   1.064584
-----------------+----------------------------------------------------------------
         /lnalpha |  .2637777   .0149002    17.70  0.000    .2345739   .2929816
-----------------+----------------------------------------------------------------
            alpha |  1.301839   .0193976                     1.26437   1.340418
--------------------------------------------------------------------------------------
```

```
               2 |  .3898932   .3193424     1.22  0.222   -.2360064   1.015793
               3 |  .0343078   .0877333     0.39  0.696   -.1376463   .2062618
               4 | -.0080053   .1236141    -0.06  0.948   -.2502844   .2342738
               5 | -.1662097   .2268061    -0.73  0.464   -.6107414    .278322
                 |
              ed |
               2 |  .0458487   .1025602     0.45  0.655   -.1551657    .246863
               3 | -.2387945   .1777526    -1.34  0.179   -.5871831   .1095941
               4 | -.5051115   .2210534    -2.29  0.022   -.9383681  -.0718548
                 |
             pov |
               2 |  .0243743    .123499     0.20  0.844   -.2176794   .2664279
               3 |  .1946265   .1279677     1.52  0.128   -.0561855   .4454386
               4 |  .3049094   .1562089     1.95  0.051   -.0012544   .6110731
                 |
         1.acgge3 |  .5052607   .0858964     5.88  0.000    .3369068   .6736146
         1.female |  .2981366   .0930021     3.21  0.001    .1158559   .4804173
   1.hypertension |  .1327276   .0902426     1.47  0.141   -.0441446   .3095997
            _cons |  6.041564   .2599535    23.24  0.000    5.532064   6.551063
-----------------+------------------------------------------------------------------
inflate          |
              yr |
               1 |  .0341008   .1530745     0.22  0.824   -.2659197   .3341212
               2 |  .1122746   .1698401     0.66  0.509   -.2206059   .4451552
               3 |  .1955811   .1622579     1.21  0.228   -.1224385   .5136007
               4 |  .0638988   .1609414     0.40  0.691   -.2515407   .3793382
                 |
            1.sg |  .1188051   .1670587     0.71  0.477   -.2086239   .4462341
                 |
           sg#yr |
```

```
           1 1 | -.4383713  .2145264   -2.04  0.041   -
.8588353  -.0179072
           1 2 | -.0381924  .2225686   -0.17  0.864   -
.4744188   .398034
           1 3 | -.1982063  .2201113   -0.90  0.368   -
.6296166   .2332039
           1 4 | -.2929149  .2230734   -1.31  0.189   -
.7301307    .144301
               |
     age_group |
             2 |  .0338561  .1876332    0.18  0.857   -
.3338983   .4016104
             3 | -.5854634  .1962059   -2.98  0.003   -
.9700199  -.2009069
             4 |  -.729994  .2013716   -3.63  0.000   -
1.124675  -.3353128
               |
          race |
             2 |  .0276067  .2440437    0.11  0.910   -
.4507102   .5059236
             3 |   .155929  .1192453    1.31  0.191   -
.0777874   .3896455
             4 |  .0309156  .1646068    0.19  0.851   -
.2917078    .353539
             5 |  .7972653  .4175088    1.91  0.056   -
.0210369   1.615567
               |
            ed |
             2 | -.0061203  .1308988   -0.05  0.963   -
.2626773   .2504367
             3 |  .2014592  .2210595    0.91  0.362   -
.2318095   .6347278
             4 | -.0066987   .407727   -0.02  0.987   -
.8058289   .7924315
               |
           pov |
             2 | -.1208735  .1562761   -0.77  0.439   -
.4271691   .1854221
             3 | -.3216546  .1540776   -2.09  0.037   -
.6236412   -.019668
             4 | -.1566263  .2035231   -0.77  0.442   -
.5555242   .2422716
               |
       1.acgge3 | -.4265006  .1204854   -3.54  0.000   -
.6626477  -.1903536
       1.female |  -1.142403  .1097766  -10.41  0.000   -
1.357562  -.9272452
  1.hypertension | -.1208232  .1089897   -1.11  0.268   -
.3344392   .0927928
```

|  |  | ```
        _cons |  .8198194   .2486932     3.30   0.001
.3323896    1.307249
-----------------------+----------------------------------------------------------
------
       /lnalpha |  .2842487   .0278381    10.21   0.000
.2296871    .3388104
-----------------------+----------------------------------------------------------
------
          alpha |  1.328763   .0369902
1.258206    1.403277
------------------------------------------------------------------------------
----
``` |
| Prescription Drug Costs | ```
------------------------------------------------------------------------------
              |               Robust
     rx_costs |      Coef.  Std. Err.     z   P>|z|    [95% Conf. Interval]
-----------------------+------------------------------------------------------
rx_costs      |
          yr |
          1 |  -.1705342   .0621566   -2.74   0.006   -.2923589   -.0487096
          2 |  -.3126355   .0623696   -5.01   0.000   -.4348777   -.1903932
          3 |  -.2055652   .0963439   -2.13   0.033   -.3943958   -.0167347
          4 |  -.3460955   .0893955   -3.87   0.000   -.5213075   -.1708834
             |
       1.sg |  -.0256996    .054775   -0.47   0.639   -.1330566    .0816575
             |
       sg#yr |
        1 1 |   .0136664     .06894    0.20   0.843   -.1214535    .1487863
        1 2 |   .0929177   .0723936    1.28   0.199   -.0489712    .2348065
        1 3 |   .0727215   .1089194    0.67   0.504   -.1407566    .2861995
        1 4 |   .3622989   .1163677    3.11   0.002    .1342225    .5903754
             |
   age_group |
          2 |   .1730073   .1115103    1.55   0.121   -.0455488    .3915634
          3 |   .4080288   .1108722    3.68   0.000    .1907232    .6253344
          4 |    .643412   .1121419    5.74   0.000    .4236179    .8632061
             |
        race |
          2 |   -.540495    .138831   -3.89   0.000   -.8125988   -.2683912
          3 |  -.0668713   .0555468   -1.20   0.229   -.1757411    .0419984
          4 |  -.0861764   .1090604   -0.79   0.429   -.2999309    .127578
          5 |    .239019   .2177391    1.10   0.272   -.1877419    .6657798
             |
          ed |
          2 |    .001827   .0703741    0.03   0.979   -.1361038    .1397577
          3 |    .039085   .1313906    0.30   0.766   -.2184359    .2966059
          4 |  -.2839548   .1403927   -2.02   0.043   -.5591195   -.0087901
             |
         pov |
          2 |  -.0728461   .0792271   -0.92   0.358   -.2281283    .0824361
          3 |  -.0728087   .0786578   -0.93   0.355   -.2269752    .0813579
``` | ```
------------------------------------------------------------------------------
-----
              |               Robust
     rx_costs |      Coef.  Std. Err.     z   P>|z|    [95%
Conf. Interval]
-----------------------+------------------------------------------------------
------
rx_costs      |
          yr |
          1 |  -.4937288   .0873498   -5.65   0.000   -
.6649314   -.3225263
          2 |  -.4857936   .0923106   -5.26   0.000   -
.666719   -.3048681
          3 |  -.5169813   .0837744   -6.17   0.000   -
.681176   -.3527865
          4 |  -.5006418   .0843357   -5.94   0.000   -
.6659367   -.3353469
             |
       1.sg |  -.0515433   .1058807   -0.49   0.626   -
.2590656    .1559791
             |
       sg#yr |
        1 1 |   .1455683   .1085746    1.34   0.180   -
.067234    .3583706
        1 2 |   .1513027   .1208193    1.25   0.210   -
.0854989    .3881043
        1 3 |   .2440906   .1148455    2.13   0.034
.0189976    .4691836
        1 4 |   .3239843    .129067    2.51   0.012
.0710177    .576951
             |
   age_group |
          2 |   .4035405   .2759293    1.46   0.144   -
.137271    .944352
          3 |   .5901417    .263868    2.24   0.025
.07297   1.107313
          4 |   .8408937   .2640814    3.18   0.001
.3233037    1.358484
``` |

```
        4 |  -.041682   .1000666   -0.42  0.677   -.2378089    .154445
          |
 1.acgge3 |  .7713473   .0567981   13.58  0.000    .6600251    .8826695
 1.female |  .0330443   .0629273    0.53  0.600   -.0902909    .1563795
1.hypertension |  .360518   .0608027    5.93  0.000    .2413469    .4796891
     _cons |  6.943843   .1308055   53.09  0.000    6.687469    7.200217
-------------+----------------------------------------------------------
inflate      |
          yr |
        1 |  -.505468   .2194586   -2.30  0.021   -.9355989    -.075337
        2 |  .4244897    .169056    2.51  0.012    .0931461    .7558333
        3 |  .5050154   .2113501    2.39  0.017    .0907767     .919254
        4 |   .956283   .2309828    4.14  0.000    .5035651    1.409001
          |
     1.sg |  .0145546   .1806388    0.08  0.936   -.3394909       .3686
          |
      sg#yr |
       1 1 |  -.076541   .2480205   -0.31  0.758   -.5626522    .4095701
       1 2 | -.0050212   .1921875   -0.03  0.979   -.3817018    .3716594
       1 3 |   .037652   .2360213    0.16  0.873   -.4249414    .5002453
       1 4 | -.5833993   .2690681   -2.17  0.030   -1.110763   -.0560354
          |
   age_group |
        2 | -.1558493   .2272273   -0.69  0.493   -.6012067    .2895081
        3 | -.3797634   .2319951   -1.64  0.102   -.8344654    .0749386
        4 | -.3117255    .266259   -1.17  0.242   -.8335835    .2101326
          |
      race |
        2 |  .0392341   .2924877    0.13  0.893   -.5340313    .6124995
        3 |  .2441256   .1513714    1.61  0.107   -.0525569    .5408081
        4 |    .40644    .196502    2.07  0.039    .0213032    .7915769
        5 |  1.187303   .5266897    2.25  0.024    .1550105    2.219596
          |
       ed |
        2 |  .2681747   .1735859    1.54  0.122   -.0720474    .6083967
        3 |  .1282047   .2709352    0.47  0.636   -.4028186    .6592279
        4 |  .4062641   .3249384    1.25  0.211   -.2306034    1.043132
          |
      pov |
        2 | -.3709562   .1770819   -2.09  0.036   -.7180304    -.023882
        3 | -.1575044   .1847683   -0.85  0.394   -.5196437    .2046349
        4 | -.3343985   .2239073   -1.49  0.135   -.7732487    .1044516
          |
 1.acgge3 | -.4383071   .1501053   -2.92  0.004   -.7325082   -.1441061
 1.female | -.5590774   .1303571   -4.29  0.000   -.8145725   -.3035823
1.hypertension | -.5754367   .1414609   -4.07  0.000    -.852695   -.2981783
     _cons | -1.530141    .328384   -4.66  0.000   -2.173762   -.8865198
-------------+----------------------------------------------------------
   /lnalpha |  .7042579    .018675   37.71  0.000    .6676555    .7408602
-------------+----------------------------------------------------------
```

```
          |
      race |
        2 | -.1801266   .2980486   -0.60  0.546   -
.7642912   .4040381
        3 |  .0657322    .115816    0.57  0.570   -
.1612629   .2927274
        4 |  -.329598   .1994938   -1.65  0.098   -
.7205986   .0614027
        5 |  .3360065   .6071847    0.55  0.580   -
.8540537   1.526067
          |
       ed |
        2 | -.0804313   .1373037   -0.59  0.558   -
.3495416   .1886791
        3 | -.3633112   .2015585   -1.80  0.071   -
.7583587   .0317362
        4 | -.4397689   .2440077   -1.80  0.072   -
.9180153   .0384774
          |
      pov |
        2 | -.1860765   .1510164   -1.23  0.218   -
.4820633   .1099103
        3 | -.1005999    .155999   -0.64  0.519   -
.4063523   .2051525
        4 |  .1118536   .1821879    0.61  0.539   -
.2452281   .4689354
          |
 1.acgge3 |  .7263663   .1134985    6.40  0.000
.5039134   .9488193
 1.female |  .1278386   .1127148    1.13  0.257   -
.0930785   .3487556
1.hypertension |  .3321164   .1110918    2.99  0.003
.1143804   .5498523
     _cons |  6.942265   .2962897   23.43  0.000
6.361548   7.522982
-------------+-------------------------------------------------------
------
inflate      |
          yr |
        1 | -.2329745   .2469051   -0.94  0.345   -
.7168996   .2509506
        2 |  .4034409   .2210508    1.83  0.068   -
.0298107   .8366924
        3 |  .5409364   .2273057    2.38  0.017
.0954253   .9864474
        4 |  .5714718   .2266399    2.52  0.012
.1272657   1.015678
          |
     1.sg |  .036134   .3753068    0.10  0.923   -
.6994539   .7717218
```

```
                    alpha |  2.022345  .0377673               1.949661   2.097739
-------------------------------------------------------------------------------
```

```
                          |
                    sg#yr |
                      1 1 | -.3131016  .4182853   -0.75  0.454  -
1.132926   .5067226
                      1 2 | -.3035894  .3626838   -0.84  0.403  -
1.014437   .4072577
                      1 3 | -.2142781  .3550922   -0.60  0.546  -
.9102461   .4816899
                      1 4 | -.4235666  .3644806   -1.16  0.245  -
1.137935   .2908023
                          |
                age_group |
                        2 | -.9459465  .7899401   -1.20  0.231  -
2.494201   .6023077
                        3 | -.8005677  .7629902   -1.05  0.294  -
2.296001   .6948655
                        4 |  -.083499  .7448239   -0.11  0.911  -
1.543327   1.376329
                          |
                     race |
                        2 | -.5510348  .6360061   -0.87  0.386  -
1.797584   .6955142
                        3 |  .5769611  .3074026    1.88  0.061  -
.025537   1.179459
                        4 |  1.125991  .4521116    2.49  0.013
.2398685   2.012113
                        5 |  1.329924   .503498    2.64  0.008
.3430865   2.316762
                          |
                       ed |
                        2 |  .6575163  .3405754    1.93  0.054  -
.0099993   1.325032
                        3 |   .039057  .6020526    0.06  0.948  -
1.140944   1.219058
                        4 |  1.137008  .6888636    1.65  0.099  -
.2131396   2.487156
                          |
                      pov |
                        2 | -1.584529  .5850361   -2.71  0.007  -
2.731179  -.4378797
                        3 | -.7966613  .3455789   -2.31  0.021  -
1.473983  -.1193391
                        4 | -.9854076  .4802259   -2.05  0.040  -
1.926633   -.044182
                          |
                  1.acgge3 | -.7094753  .4195096   -1.69  0.091  -
1.531699   .1127485
                  1.female |  -.735657  .3091392   -2.38  0.017  -
1.341559  -.1297552
```

```
     1.hypertension |  -.294141   .2574192   -1.14   0.253   -
.7986733   .2103913
              _cons |  -1.236753   .8514977   -1.45   0.146   -
2.905657   .4321523
---------------------+------------------------------------------------
------
            /lnalpha |   .6862978   .0436369   15.73   0.000
.6007712   .7718245
---------------------+------------------------------------------------
------
               alpha |   1.986348   .086678                  1.823525
2.16371
----------------------------------------------------------------------
-----
```

All Other Ambulatory Costs

```
------------------------------------------------------------------
           |            Robust
    tot_oth |  Coef.   Std. Err.    z   P>|z|   [95% Conf. Interval]
-----------+------------------------------------------------------
tot_oth    |
       yr  |
        1  |  .1328835  .0840327   1.58  0.114  -.0318176   .2975846
        2  |  .3040801  .102824    2.96  0.003   .1025488   .5056114
        3  |  .2354862  .1288213   1.83  0.068  -.0169988   .4879712
        4  |  .4044952  .1602489   2.52  0.012   .0904131   .7185773
           |
     1.sg  |  .0045127  .0806922   0.06  0.955  -.1536411   .1626665
           |
      sg#yr|
       1 1 | -.0022616  .0978418  -0.02  0.982  -.1940279   .1895048
       1 2 | -.0849259  .1181687  -0.72  0.472  -.3165322   .1466804
       1 3 | -.0061565  .1471863  -0.04  0.967  -.2946364   .2823233
       1 4 | -.1131812  .1825824  -0.62  0.535  -.4710361   .2446737
           |
 age_group |
        2  |  .186165   .1309429   1.42  0.155  -.0704785   .4428084
        3  |  .163543   .1294347   1.26  0.206  -.0901444   .4172303
        4  |  .2624237  .131645    1.99  0.046   .0044041   .5204432
           |
      race |
        2  | -.2530714  .121571   -2.08  0.037  -.4913463  -.0147966
        3  | -.0783434  .056648   -1.38  0.167  -.1893715   .0326846
        4  |  .0577266  .080301    0.72  0.472  -.0996605   .2151136
        5  | -.2403823  .116447   -2.06  0.039  -.4686142  -.0121504
           |
       ed  |
        2  |  .0434898  .068762    0.63  0.527  -.0912812   .1782609
        3  | -.0687685  .1018971  -0.67  0.500  -.2684832   .1309461
        4  | -.1829989  .1717184  -1.07  0.287  -.5195607   .1535629
           |
      pov  |
```

```
------------------------------------------------------------------
-----
           |            Robust
    tot_oth |  Coef.   Std. Err.    z   P>|z|   [95%
Conf. Interval]
-----------+------------------------------------------------------
------
tot_oth    |
       yr  |
        1  |  .1155457  .1452339   0.80  0.426  -
.1691076   .4001989
        2  | -.0008273  .1518377  -0.01  0.996  -
.2984237   .2967691
        3  |  .1115502  .1484964   0.75  0.453  -
.1794975   .4025978
        4  |  .2783599  .156687    1.78  0.076  -
.028741   .5854607
           |
     1.sg  |  .2494307  .1595343   1.56  0.118  -
.0632507   .5621122
           |
      sg#yr|
       1 1 |  .0874313  .2003444   0.44  0.663  -
.3052364   .4800991
       1 2 |  .02706   .1993163   0.14  0.892  -
.3635929   .4177128
       1 3 | -.132759   .2030408  -0.65  0.513  -
.5307116   .2651936
       1 4 | -.1080049  .1992867  -0.54  0.588  -
.4985995   .2825898
           |
 age_group |
        2  |  .4147111  .1920691   2.16  0.031
.0382626   .7911597
        3  |  .3955258  .1881079   2.10  0.035
.0268411   .7642104
```

```
              2 |   .0236295   .0724805     0.33   0.744    -.1184296    .1656887
              3 |   .0624261   .0722896     0.86   0.388    -.0792589    .2041111
              4 |   .1364181   .0985228     1.38   0.166     -.056683    .3295193
                |
      1.acgge3 |    .490848   .0502402     9.77   0.000      .392379    .5893171
      1.female |   .0455648   .0670255     0.68   0.497    -.0858027    .1769324
 1.hypertension |   .1067603   .0545868     1.96   0.050    -.0002278    .2137484
          _cons |   7.549077   .1571847    48.03   0.000     7.241001    7.857154
-----------------+----------------------------------------------------------------
inflate          |
             yr |
              1 |  -.7946722   .1380337    -5.76   0.000    -1.065213   -.5241311
              2 |  -.0692403   .1217796    -0.57   0.570     -.307924    .1694434
              3 |   .2481916   .1430012     1.74   0.083    -.0320856    .5284689
              4 |     .17785   .1563114     1.14   0.255    -.1285148    .4842148
                |
          1.sg |  -.2667815   .1059207    -2.52   0.012    -.4743823   -.0591807
                |
          sg#yr |
            1 1 |    .510844   .1544994     3.31   0.001     .2080308    .8136571
            1 2 |   .4834847   .1372256     3.52   0.000     .2145273     .752442
            1 3 |   .2578368   .1610375     1.60   0.109    -.0577909    .5734644
            1 4 |   .2138936   .1829196     1.17   0.242    -.1446223    .5724095
                |
      age_group |
              2 |   .0827092   .1255493     0.66   0.510    -.1633629    .3287813
              3 |  -.0779847   .1273912    -0.61   0.540     -.327667    .1716975
              4 |  -.3774365   .1518192    -2.49   0.013    -.6749968   -.0798763
                |
           race |
              2 |   .4558346   .1910848     2.39   0.017     .0813153     .830354
              3 |   .0721746   .0791757     0.91   0.362     -.083007    .2273562
              4 |   .2173199   .1366573     1.59   0.112    -.0505234    .4851633
              5 |   .0889787   .2367156     0.38   0.707    -.3749753    .5529328
                |
            ed |
              2 |  -.0502296   .0873826    -0.57   0.565    -.2214962    .1210371
              3 |   .0622954   .1502005     0.41   0.678    -.2320921    .3566829
              4 |   .0610839   .1836957     0.33   0.739    -.2989531    .4211209
                |
           pov |
              2 |  -.1155741   .1053722    -1.10   0.273    -.3220999    .0909517
              3 |   .0359534   .1097731     0.33   0.743    -.1791979    .2511048
              4 |  -.0860325   .1317081    -0.65   0.514    -.3441756    .1721105
                |
      1.acgge3 |  -.6834582   .0803583    -8.51   0.000    -.8409575   -.5259588
      1.female |  -.2924878    .079299    -3.69   0.000     -.447911   -.1370646
 1.hypertension |  -.3126818    .075481    -4.14   0.000    -.4606218   -.1647419
          _cons |  -.5107319   .1745034    -2.93   0.003    -.8527523   -.1687116
-----------------+----------------------------------------------------------------
```

```
              4 |   .5850426   .1842453     3.18   0.001
 .2239285    .9461566
                |
          race |
              2 |   .6164908   .3893454     1.58   0.113   -
.1466122    1.379594
              3 |  -.0701187   .0932957    -0.75   0.452   -
.2529749    .1127374
              4 |   .3304392   .1741067     1.90   0.058   -
.0108036     .671682
              5 |  -.4569426   .2951031    -1.55   0.122   -
1.035334    .1214488
                |
            ed |
              2 |   .0644383   .1117553     0.58   0.564   -
.1545981    .2834747
              3 |   -.230622   .1683089    -1.37   0.171   -
.5605013    .0992574
              4 |  -.1405434   .2705404    -0.52   0.603   -
.6707928    .3897059
                |
           pov |
              2 |   .0606471   .1294198     0.47   0.639   -
.1930111    .3143052
              3 |   .3158251   .1410157     2.24   0.025
.0394394    .5922108
              4 |   .2365522   .1730163     1.37   0.172   -
.1025536     .575658
                |
      1.acgge3 |   .5281509   .1005026     5.26   0.000
.3311695    .7251323
      1.female |   .2783929   .0974074     2.86   0.004
.087478    .4693078
 1.hypertension |   .1872584   .0979316     1.91   0.056   -
.004684    .3792008
          _cons |   6.753022   .2394812    28.20   0.000
6.283647    7.222396
-----------------------+----------------------------------------------------
------
inflate          |
             yr |
              1 |  -.5833281    .211463    -2.76   0.006   -
.9977879   -.1688683
              2 |   .0773123   .1925423     0.40   0.688   -
.3000636    .4546882
              3 |   .1109324   .2135605     0.52   0.603   -
.3076385    .5295034
              4 |   .0954047    .184659     0.52   0.605   -
.2665203    .4573297
                |
```

```
     /lnalpha |  .9271828   .016106    57.57   0.000    .8956156    .95875
--------------------+----------------------------------------------------------------
        alpha |  2.527379   .040706                      2.448843   2.608434
--------------------------------------------------------------------------------------
```

	coef	std err	z	P>z	[95% conf. interval]
1.sg	.1035984	.2013131	0.51	0.607	-.2909679 .4981648
sg#yr					
1 1	.2150613	.2853722	0.75	0.451	-.3442578 .7743805
1 2	-.1463518	.2584262	-0.57	0.571	-.6528578 .3601542
1 3	-.1295229	.282584	-0.46	0.647	-.6833774 .4243316
1 4	-.5096681	.2686145	-1.90	0.058	-1.036143 .0168067
age_group					
2	-.1155044	.2356348	-0.49	0.624	-.5773401 .3463313
3	-.5258784	.2299602	-2.29	0.022	-.9765921 -.0751648
4	-.8844385	.2428625	-3.64	0.000	-1.36044 -.4084368
race					
2	-.1402002	.3365302	-0.42	0.677	-.7997872 .5193868
3	-.0383517	.151313	-0.25	0.800	-.3349197 .2582162
4	-.0506869	.1906497	-0.27	0.790	-.4243534 .3229797
5	.8388189	.5803709	1.45	0.148	-.2986873 1.976325
ed					
2	.2796787	.2057625	1.36	0.174	-.1236084 .6829657
3	.7161561	.263601	2.72	0.007	.1995076 1.232805
4	.9910046	.3820389	2.59	0.009	.2422221 1.739787
pov					
2	.0834436	.1935719	0.43	0.666	-.2959504 .4628375
3	-.2429764	.2043386	-1.19	0.234	-.6434727 .1575199
4	-.2008229	.2613901	-0.77	0.442	-.7131381 .3114923
1.acgge3	-.7665635	.1631335	-4.70	0.000	-1.086299 -.4468278

```
    1.female |  -.2287813   .1436528   -1.59   0.111   -.5103357   .0527731
1.hypertension |  -.1552332   .1354429   -1.15   0.252   -.4206964    .11023
       _cons |   -.520766    .309474   -1.68   0.092   -1.127324    .0857919
-----------------------+------------------------------------------------------------
    /lnalpha |   .9070918   .0327283   27.72   0.000    .8429456    .971238
-----------------------+------------------------------------------------------------
       alpha |   2.477108   .0810715                    2.3232     2.641212
-----------------------------------------------------------------------------------
```

Cardiometabolic prescription fills	

<pre>-- 	
                       | Robust
    total_cardioenc_rx | Coef.   Std. Err.   z   P>|z| [95% Conf. Interval]
-----------------------+--
total_cardioenc_rx |
                    yr |
                    1 | -.5720415   .0419706   -13.63   0.000   -.6543024   -.4897806
                    2 | -.4362218   .0485649   -8.98   0.000   -.5314073   -.3410363
                    3 | -.387446   .0591197   -6.55   0.000   -.5033186   -.2715734
                    4 | -.337037   .0731765   -4.61   0.000   -.4804604   -.1936137
                       |
                  1.sg | -.0297384   .0421592   -0.71   0.481   -.1123688   .052892
                       |
                 sg#yr |
                   1 1 | .0960093   .0494932   1.94   0.052   -.0009957   .1930143
                   1 2 | .122338   .057152   2.14   0.032   .0103221   .234354
                   1 3 | .1548836   .0709748   2.18   0.029   .0157756   .2939916
                   1 4 | .2286882   .0903698   2.53   0.011   .0515666   .4058098
                       |
             age_group |
                    2 | .3201345   .1429466   2.24   0.025   .0399642   .6003048
                    3 | .4724653   .1403093   3.37   0.001   .1974642   .7474664
                    4 | .7803743   .1396227   5.59   0.000   .5067189   1.05403
                       |
                  race |
                    2 | .024822   .0880396   0.28   0.778   -.1477325   .1973765
                    3 | -.0288005   .0426199   -0.68   0.499   -.112334   .0547329
                    4 | -.0587859   .0810716   -0.73   0.468   -.2176833   .1001115
                    5 | -.1376413   .1305167   -1.05   0.292   -.3934493   .1181668
                       |
                    ed |
                    2 | .0098426   .0519815   0.19   0.850   -.0920393   .1117246
                    3 | -.1169256   .1012429   -1.15   0.248   -.315358   .0815067
                    4 | -.2434724   .1333183   -1.83   0.068   -.5047714   .0178266</pre>
	<pre>--- 	
	                       | Robust
	    total_cardioenc_rx | Coef. Std. Err. z P>|z| [95% Conf. Interval]
	-----------------------+--
	total_cardioenc_rx |
	                    yr |
	                    1 | -.6443914 .0935982 -6.88 0.000 -.8278405 -.4609422
	                    2 | -.4000552 .0866706 -4.62 0.000 -.5699265 -.2301839
	                    3 | -.3114064 .0893663 -3.48 0.000 -.4865611 -.1362518
	                    4 | -.2999216 .0937911 -3.20 0.001 -.4837489 -.1160944
	                       |
	                  1.sg | -.1230045 .0945459 -1.30 0.193 -.308311 .062302
	                       |
	                 sg#yr |
	                   1 1 | .0999689 .1216048 0.82 0.411 -.1383722 .33831
	                   1 2 | .0274302 .1232089 0.22 0.824 -.2140547 .2689151
	                   1 3 | .0296841 .1182737 0.25 0.802 -.2021281 .2614963
	                   1 4 | .1128129 .1188975 0.95 0.343 -.1202219 .3458477
	                       |
	             age_group |
	                    2 | .5970131 .291255 2.05 0.040 .0261639 1.167862</pre>

```
                |
           pov  |
             2  |  .0549902   .0566082    0.97   0.331   -.0559598    .1659402
             3  |  .0331416   .055898     0.59   0.553   -.0764166    .1426997
             4  |  .1532537   .0760078    2.02   0.044    .0042811    .3022262
                |
      1.acgge3  |  .2600808   .0396892    6.55   0.000    .1822915    .3378701
      1.female  | -.3384918   .0425557   -7.95   0.000   -.4218994   -.2550843
1.hypertension  |  .5980588   .0495661   12.07   0.000    .500911     .6952066
         _cons  | 1.638308    .1535311   10.67   0.000   1.337392    1.939223
----------------+------------------------------------------------------------
inflate         |
           yr   |
             1  |  .5117348   .095386     5.36   0.000    .3247817    .6986878
             2  | 1.281706    .1017956   12.59   0.000   1.08219     1.481222
             3  | 1.402362    .1251598   11.20   0.000   1.157053    1.647671
             4  | 1.226908    .15835      7.75   0.000    .9165477   1.537269
                |
         1.sg   |  .0030626   .0933248    0.03   0.974   -.1798506    .1859758
                |
         sg#yr  |
           1 1  | -.2053912   .1098418   -1.87   0.062   -.4206772    .0098948
           1 2  | -.372234    .1180537   -3.15   0.002   -.6036151   -.140853
           1 3  | -.4796711   .1443621   -3.32   0.001   -.7626156   -.1967267
           1 4  |      -.32   .1845401   -1.73   0.083   -.6816919    .041692
                |
     age_group  |
             2  | -.589852    .1595063   -3.70   0.000   -.9024786   -.2772253
             3  | -.9845534   .1537557   -6.40   0.000   -1.285909   -.6831977
             4  | -1.575131   .1573887  -10.01   0.000   -1.883607   -1.266655
                |
          race  |
             2  | -.6271661   .1886085   -3.33   0.001   -.9968319   -.2575002
             3  | -.1333518   .079537    -1.68   0.094   -.2892414    .0225379
             4  |  .1425678   .1270091    1.12   0.262   -.1063654    .3915011
             5  | -.2450821   .3042939   -0.81   0.421   -.8414871    .3513229
                |
            ed  |
             2  |  .0996593   .1003917    0.99   0.321   -.0971048    .2964234
             3  | -.1213508   .1839534   -0.66   0.509   -.4818928    .2391911
             4  | -.2469367   .2955117   -0.84   0.403   -.826129     .3322556
                |
           pov  |
             2  | -.0703439   .1017404   -0.69   0.489   -.2697515    .1290636
             3  | -.0029116   .0985452   -0.03   0.976   -.1960565    .1902334
             4  |  .0157262   .1311195    0.12   0.905   -.2412633    .2727156
                |
      1.acgge3  | -.4084441   .0747841   -5.46   0.000   -.5550182    -.26187
      1.female  | -.0258383   .0800088   -0.32   0.747   -.1826527    .1309762
1.hypertension  | -1.785618   .0758354  -23.55   0.000   -1.934252   -1.636983
```

```
             3  |  .916039    .281783     3.25   0.001
.3637544    1.468324
             4  | 1.116115    .2872483    3.89   0.000
.553119     1.679112
                |
          race  |
             2  | -.2609244   .1694229   -1.54   0.124   -
.5929872    .0711385
             3  |  .0800232   .1147431    0.70   0.486   -
.1448692    .3049156
             4  | -.1930889   .1767492   -1.09   0.275   -
.5395109    .1533332
             5  | -.3820864   .1879374   -2.03   0.042   -
.7504369   -.0137359
                |
            ed  |
             2  | -.108296    .1315978   -0.82   0.411   -
.3662229    .1496309
             3  | -.1976596   .1974261   -1.00   0.317   -
.5846078    .1892885
             4  | -.3880482   .3257707   -1.19   0.234   -
1.026547    .2504506
                |
           pov  |
             2  | -.0821264   .1449207   -0.57   0.571   -
.3661657    .2019128
             3  | -.0472302   .1508796   -0.31   0.754   -
.3429489    .2484885
             4  |  .1817492   .1644998    1.10   0.269   -
.1406644    .5041629
                |
      1.acgge3  |  .2816635   .1011446    2.78   0.005
.0834237    .4799032
      1.female  | -.3979345   .0946471   -4.20   0.000   -
.5834395   -.2124296
1.hypertension  |  .4170242   .1423944    2.93   0.003
.1379364    .696112
         _cons  | 1.623636    .2890898    5.62   0.000
1.057031    2.190242
----------------+------------------------------------------------------------
------
inflate         |
           yr   |
             1  |  .4542349   .143809      3.16   0.002
.1723745    .7360953
             2  | 1.194873    .1606064     7.44   0.000
.8800903    1.509656
             3  | 1.273658    .1642109     7.76   0.000
.9518109    1.595506
```

```
        _cons |  1.739811   .1917604    9.07  0.000   1.363967   2.115654
-----------------+----------------------------------------------------------------
     /lnalpha |  -.091185   .0363267   -2.51  0.012  -.1623841  -.0199859
-----------------+----------------------------------------------------------------
        alpha |  .9128488   .0331608                  .8501146   .9802125
------------------------------------------------------------------------------
```

```
          4 |  1.040244    .17517     5.94  0.000   .6969171   1.383571
            |
        1.sg |  .0612325   .1889616    0.32  0.746  -.3091254   .4315904
            |
       sg#yr |
         1 1 |  -.2230885  .2003395   -1.11  0.265  -.6157466   .1695696
         1 2 |  -.5055741  .2205843   -2.29  0.022  -.9379115  -.0732367
         1 3 |  -.5475963  .2210639   -2.48  0.013  -.9808735  -.114319
         1 4 |  -.4590875  .2306157   -1.99  0.047  -.9110859  -.0070891
            |
   age_group |
          2 |  -.2454799  .4150694   -0.59  0.554  -1.059001   .5680411
          3 |  -.8084577  .4006357   -2.02  0.044  -1.593689  -.0232262
          4 |  -1.414036  .4183352   -3.38  0.001  -2.233958  -.594114
            |
        race |
          2 |  -1.037323  .5142837   -2.02  0.044  -2.045301  -.029346
          3 |  -.1054047  .1755418   -0.60  0.548  -.4494603   .2386509
          4 |  .2907818   .258995     1.12  0.262  -.2168391   .7984027
          5 |  -.442834   .5874728   -0.75  0.451  -1.594259   .7085915
            |
         ed |
          2 |  .0723159   .2242589    0.32  0.747  -.3672234   .5118553
          3 |  .1004796   .3282276    0.31  0.760  -.5428346   .7437938
          4 |  -.5136785  .4360541   -1.18  0.239  -1.368329   .3409719
            |
        pov |
          2 |  -.2240782  .2338416   -0.96  0.338  -.6823992   .2342429
          3 |  -.4974739  .2584438   -1.92  0.054  -1.004014   .0090667
          4 |  -.3696045  .3084531   -1.20  0.231  -.9741615   .2349524
            |
```

		``
1.acgge3	-.4299097 .1753777 -2.45 0.014 -
.7736437   -.0861757
1.female	.0441929 .1793049 0.25 0.805 -
.3072382   .3956241
1.hypertension	-1.368524 .1711194 -8.00 0.000 -
1.703912   -1.033136
_cons	1.513165 .4924823 3.07 0.002
.547917   2.478412
-----------------+--

/lnalpha	-.0701975 .0827267 -0.85 0.396 -
.2323388   .0919438
-----------------+--
------
alpha	.9322097 .0771186
.7926775   1.096303

----- ```
All other prescription fills	```

Robust
total_othenc_rx	Coef. Std. Err. z P>|z| [95% Conf. Interval]
-----------------+--
total_othenc_rx
yr
1	.0816724 .0314238 2.60 0.009 .0200829 .1432619
2	.121962 .0345389 3.53 0.000 .054267 .189657
3	.1401407 .0412091 3.40 0.001 .0593723 .2209091
4	.1400031 .0547375 2.56 0.011 .0327196 .2472867
1.sg	-.0778051 .0391274 -1.99 0.047 -.1544934 -.0011168
sg#yr
1 1	-.0401884 .0352773 -1.14 0.255 -.1093306 .0289538
1 2	-.0049813 .0396672 -0.13 0.900 -.0827275 .072765
1 3	.0506953 .049527 1.02 0.306 -.0463759 .1477664
1 4	.0458935 .0673021 0.68 0.495 -.0860163 .1778032
age_group
2	.1035895 .0810987 1.28 0.201 -.0553612 .2625401
3	.1481989 .0732503 2.02 0.043 .0046309 .2917669
4	.1583915 .0763847 2.07 0.038 .0086802 .3081028
race
2	-.3539275 .1153996 -3.07 0.002 -.5801067 -.1277484
3	-.0635612 .0414597 -1.53 0.125 -.1448207 .0176984
4	-.1992081 .0849923 -2.34 0.019 -.3657899 -.0326264
5	-.0267711 .1326683 -0.20 0.840 -.2867962 .2332541
             ed |
              2 | -.0300408   .0538614   -0.56 0.577   -.1356073   .0755256 ``` | ```

                | Robust
   total_othenc_rx | Coef. Std. Err.   z   P>|z| [95%
Conf. Interval]
-----------------+--
------
total_othenc_rx |
             yr |
              1 | -.0629567   .0439729   -1.43 0.152   -
.149142   .0232285
              2 | -.0248186   .0436222   -0.57 0.569   -
.1103166   .0606793
              3 | .0756922   .0517872   1.46 0.144   -
.0258088   .1771933
              4 | .1019901   .0480474   2.12 0.034
.0078189   .1961614
                |
           1.sg | -.1277545   .0765343   -1.67 0.095   -
.277759   .02225
                |
           sg#yr |
            1 1 | .1083861   .0589159   1.84 0.066   -
.007087   .2238591
            1 2 | .1076931   .0626598   1.72 0.086   -
.0151179   .2305041
            1 3 | .0482505   .0784301   0.62 0.538   -
.1054696   .2019707
            1 4 | .0778062   .0663707   1.17 0.241   -
.052278   .2078904
                |
        age_group | ``` |

```
         3 |  -.0405149   .0679456    -0.60   0.551    -.1736858    .092656
         4 |  -.0689004   .1747817    -0.39   0.693    -.4114662    .2736654
           |
       pov |
         2 |   .0409036   .0520795     0.79   0.432    -.0611704    .1429777
         3 |   .0828496   .0489584     1.69   0.091    -.0131072    .1788064
         4 |   .1090633   .0625149     1.74   0.081    -.0134636    .2315902
           |
  1.acgge3 |   .5049659   .0397473    12.70   0.000     .4270626    .5828692
  1.female |   .3433663   .0478769     7.17   0.000     .2495293    .4372032
1.hypertension |   .2150522   .0406627   5.29   0.000     .1353548    .2947497
     _cons |   1.996967   .1001747    19.93   0.000     1.800629    2.193306
-------------+----------------------------------------------------------------
inflate     |
        yr |
         1 |  -.6459935    .37902     -1.70   0.088    -1.388859    .096872
         2 |   .5553892   .2031619     2.73   0.006     .1571991    .9535793
         3 |   .7046318    .286339     2.46   0.014     .1434177    1.265846
         4 |   1.15882    .2924896     3.96   0.000     .5855506    1.732089
           |
      1.sg |  -.1303325   .2734287    -0.48   0.634    -.6662428    .4055779
           |
     sg#yr |
       1 1 |  -.6305943   .5234051    -1.20   0.228     -1.65645    .3952609
       1 2 |   .1106097   .2435814     0.45   0.650     -.366801    .5880203
       1 3 |   .2865241   .3217175     0.89   0.373    -.3440307    .9170788
       1 4 |   -.335936    .340351     -0.99   0.324    -1.003012    .3311398
           |
 age_group |
         2 |  -.0040118   .3193076    -0.01   0.990    -.6298431    .6218196
         3 |  -.2162888    .323651     -0.67   0.504    -.8506331    .4180555
         4 |  -.0963203    .37258     -0.26   0.796    -.8265637    .6339231
           |
      race |
         2 |   .1365004   .3951741     0.35   0.730    -.6380266    .9110274
         3 |   .3295779   .1956461     1.68   0.092    -.0538814    .7130371
         4 |   .3733242   .2677824     1.39   0.163    -.1515197    .8981682
         5 |   1.190716   .6018388     1.98   0.048     .0111332    2.370298
           |
        ed |
         2 |   .1778447   .2198933     0.81   0.419    -.2531382    .6088276
         3 |   .2303847   .3179152     0.72   0.469    -.3927177    .8534871
         4 |   .3597152   .3953009     0.91   0.363    -.4150604    1.134491
           |
       pov |
         2 |  -.5717947   .2230399    -2.56   0.010    -1.008945   -.1346445
         3 |  -.2972768   .2267087    -1.31   0.190    -.7416178    .1470641
         4 |  -.4899107   .2859465    -1.71   0.087    -1.050355    .0705341
           |
  1.acgge3 |  -.4807394   .1861319    -2.58   0.010    -.8455512   -.1159276
```

```
         2 |   .2509628   .1969726    1.27   0.203   -.1350964   .6370221
         3 |   .4218705   .1873022    2.25   0.024    .0547648   .7889761
         4 |   .6093695   .1910221    3.19   0.001    .2349729   .983766
           |
      race |
         2 |   .0503097   .3991488    0.13   0.900   -.7320075   .8326269
         3 |   .010314    .0840216    0.12   0.902   -.1543653   .1749934
         4 |  -.3176051    .164      -1.94   0.053   -.6390393   .003829
         5 |  -.0790887   .281361    -0.28   0.779   -.630546    .4723687
           |
        ed |
         2 |  -.0388467   .1106601   -0.35   0.726   -.2557365   .1780432
         3 |  -.1325711   .1608311   -0.82   0.410   -.4477942   .1826519
         4 |  -.2801603   .1630374   -1.72   0.086   -.5997078   .0393872
           |
       pov |
         2 |   .1692036   .1033566    1.64   0.102   -.0333716   .3717788
         3 |   .0959691   .1010239    0.95   0.342   -.1020341   .2939724
         4 |   .2291922   .1373393    1.67   0.095   -.039988    .4983723
           |
  1.acgge3 |   .4529592   .0872169    5.19   0.000    .2820172   .6239012
  1.female |   .4045715   .0953607    4.24   0.000    .2176679   .5914751
1.hypertension |   .072492   .0798054   0.91   0.364   -.0839238   .2289078
     _cons |   1.722628   .2089193    8.25   0.000   1.313154   2.132102
-------------+----------------------------------------------------------------------
inflate     |
        yr |
         1 |  -.1690039   .5805288   -0.29   0.771   -1.306819   .9688116
         2 |   .4939856   .4454221    1.11   0.267   -.3790257   1.366997
```

```
       1.female |  -.7181844   .1548145    -4.64   0.000    -1.021615   -.4147536
 1.hypertension |  -.1248541    .183845    -0.68   0.497    -.4851836    .2354754
          _cons |  -1.807443   .4493793    -4.02   0.000    -2.688211   -.9266761
----------------+--------------------------------------------------------------
        /lnalpha |  -.0235702   .0281456    -0.84   0.402    -.0787346    .0315941
----------------+--------------------------------------------------------------
          alpha |   .9767054     .02749                     .9242852    1.032099
-------------------------------------------------------------------------------
```

```
            3 |   .5232502   .6128819     0.85   0.393   -
.6779763   1.724477
            4 |   .7984331   .5445071     1.47   0.143   -
.2687812   1.865647
              |
         1.sg |  -.1209306   .7979716    -0.15   0.880   -
1.684926   1.443065
              |
        sg#yr |
          1 1 |  -.2529622   .7496304    -0.34   0.736   -
1.722211   1.216286
          1 2 |  -.1614765   .6226769    -0.26   0.795   -
1.381901   1.058948
          1 3 |   .3261083   .8520071     0.38   0.702   -
1.343795   1.996012
          1 4 |  -.2134196    .727812    -0.29   0.769   -
1.639905   1.213066
              |
    age_group |
            2 |   -1.18882   2.083057    -0.57   0.568   -
5.271537   2.893896
            3 |  -.9656559   1.837425    -0.53   0.599   -
4.566942   2.635631
            4 |   .1714152   1.682551     0.10   0.919   -
3.126324   3.469154
              |
         race |
            2 |   .0141788   1.140098     0.01   0.990   -
2.220372   2.248729
            3 |   1.004072   .8958505     1.12   0.262   -
.7517624   2.759907
            4 |   1.305387   1.520773     0.86   0.391   -
1.675274   4.286048
            5 |   2.132026    1.00422     2.12   0.034
.1637912   4.100261
              |
           ed |
            2 |   .5865318   .9233091     0.64   0.525   -
1.223121   2.396184
            3 |  -.9330656   3.985114    -0.23   0.815   -
8.743746   6.877615
            4 |   1.244529   1.578866     0.79   0.431   -
1.849992    4.33905
              |
          pov |
            2 |  -2.960204    2.73054    -1.08   0.278   -
8.311964   2.391557
            3 |  -.9508897   .6088897    -1.56   0.118   -
2.144292   .2425121
```

```
        4 |  -1.214739   1.574917   -0.77   0.441    -
4.301519    1.87204
          |
  1.acgge3 |  -1.298763   .8384965   -1.55   0.121    -
2.942186    .3446602
  1.female |  -1.028256   .5041389   -2.04   0.041    -
2.01635   -.0401624
1.hypertension |   .098918   .6453535    0.15   0.878    -
1.165952    1.363788
     _cons |  -1.605724   1.746445   -0.92   0.358    -
5.028694    1.817245
-----------------------+-------------------------------------------------------
------
   /lnalpha |   .0401148   .0958243    0.42   0.675    -
.1476973    .2279269
-----------------------+-------------------------------------------------------
------
      alpha |    1.04093   .0997464                    .8626922
1.255994
--------------------------------------------------------------------------------
-----
```

Specialist visits

Left column:

```
--------------------------------------------------------------------------------
             |              Semirobust
total_specenc |   Coef.   Std. Err.    z   P>|z|    [95% Conf. Interval]
-------------+------------------------------------------------------------------
          yr |
           1 |  .4747236   .0342981   13.84   0.000    .4075004   .5419467
           2 |  .3001423   .0406639    7.38   0.000    .2204424   .3798421
           3 |  .1849295   .0497954    3.71   0.000    .0873324   .2825266
           4 |  .0827283   .0509706    1.62   0.105   -.0171722   .1826288
             |
        1.sg |  .0420778   .0423614    0.99   0.321   -.0409491   .1251047
             |
       sg#yr |
         1 1 | -.0751488   .0386073   -1.95   0.052   -.1508177   .0005201
         1 2 | -.0806045   .0457376   -1.76   0.078   -.1702485   .0090394
         1 3 | -.1195849    .056954   -2.10   0.036   -.2312127  -.0079572
         1 4 |  .0263774   .0614777    0.43   0.668   -.0941168   .1468715
             |
   age_group |
           2 |  .0320761   .0649368    0.49   0.621   -.0951977   .1593498
           3 |  .0723751   .0633852    1.14   0.254   -.0518576   .1966079
           4 |   .281371   .0630714    4.46   0.000    .1577533   .4049887
             |
        race |
           2 | -.0536032   .0770626   -0.70   0.487   -.2046431   .0974367
           3 |  .0590915   .0359728    1.64   0.100   -.0114139   .1295969
           4 |  -.107693    .060655   -1.78   0.076   -.2265745   .0111886
           5 | -.0802409   .1272344   -0.63   0.528   -.3296158   .1691339
             |
```

Right column:

```
--------------------------------------------------------------------------------
-----
             |              Semirobust
total_specenc |   Coef.   Std. Err.    z   P>|z|    [95%
Conf. Interval]
-------------+------------------------------------------------------------------
------
          yr |
           1 |   .404372   .0677432    5.97   0.000
.2715978   .5371461
           2 |  .1752236   .0820223    2.14   0.033
.0144628   .3359844
           3 |   .054375   .0776542    0.70   0.484    -
.0978244   .2065745
           4 |  .0236829   .0618048    0.38   0.702    -
.0974523   .144818
             |
        1.sg |  .0527602   .0809265    0.65   0.514    -
.1058528   .2113732
             |
       sg#yr |
         1 1 | -.0112595    .084247   -0.13   0.894    -
.1763805   .1538616
         1 2 |  -.050567   .0964601   -0.52   0.600    -
.2396254   .1384914
         1 3 | -.1060874   .0979784   -1.08   0.279    -
.2981215   .0859467
         1 4 |   .057712    .084474    0.68   0.494    -
.1078539   .223278
```

Left column:

```
             ed |
              2 |  -.0477002   .041193   -1.16  0.247   -.128437    .0330367
              3 |  -.1399146  .0654185   -2.14  0.032   -.2681325  -.0116967
              4 |  -.3482297  .1106357   -3.15  0.002   -.5650717  -.1313878
                 |
            pov |
              2 |  -.0393148  .0455691   -0.86  0.388   -.1286286    .049999
              3 |  -.0876918  .0459792   -1.91  0.056   -.1778094   .0024259
              4 |  -.0381741   .057561   -0.66  0.507   -.1509915   .0746433
                 |
        1.female |   .3024765  .0374656    8.07  0.000    .2290452   .3759078
    1.hypertension |   .183493  .0332848    5.51  0.000    .118256   .2487299
           _cons |   .2788069  .0804927    3.46  0.001    .1210441   .4365697
------------------------------------------------------------------------------
```

Right column:

```
                |
     age_group |
              2 |   .265891  .1371718    1.94  0.053  -
.0029608   .5347427
              3 |    .3272   .134248    2.44  0.015
.0640787   .5903212
              4 |  .5049018  .1301832    3.88  0.000
.2497473   .7600563
                |
           race |
              2 |  .1159701  .2868761    0.40  0.686  -
.4462968   .678237
              3 |  -.0245539  .0710196   -0.35  0.730  -
.1637497   .114642
              4 |  -.124337  .1163771   -1.07  0.285  -
.352432   .103758
              5 |  -.3069899  .3798076   -0.81  0.419  -
1.051399   .4374193
                |
            ed |
              2 |  .0218082  .0906747    0.24  0.810  -
.1559109   .1995274
              3 |  -.4321947   .163942   -2.64  0.008  -
.7535152  -.1108743
              4 |  -.5233302  .2288133   -2.29  0.022   -
.971796  -.0748644
                |
           pov |
              2 |  .0307141   .092245    0.33  0.739  -
.1500828   .2115111
              3 |  .0788816   .093785    0.84  0.400  -
.1049336   .2626969
              4 |  .2012108  .1342111    1.50  0.134  -
.0618382   .4642597
                |
        1.female |   .42261  .0794896    5.32  0.000
.2668133   .5784067
   1.hypertension |  .1675953  .0675449    2.48  0.013
.0352098   .2999808
           _cons |  -.1317668  .1900968   -0.69  0.488  -
.5043497   .2408161
------------------------------------------------------------------------------
-----
```

| PCP visits |

Left column (PCP visits):

```
------------------------------------------------------------------------------
                |            Semirobust
    total_pcpenc |   Coef.   Std. Err.    z   P>|z|    [95% Conf. Interval]
-----------------+------------------------------------------------------------
             yr |
              1 |  .0236439  .0250813    0.94  0.346   -.0255145   .0728023
              2 |  -.0559703  .0288469   -1.94  0.052   -.1125091   .0005685
```

Right column (PCP visits):

```
------------------------------------------------------------------------------
-----
                |            Semirobust
    total_pcpenc |   Coef.   Std. Err.    z   P>|z|    [95%
Conf. Interval]
-----------------+------------------------------------------------------------
------
```

```
           3 |  -.1078016   .0372197   -2.90   0.004    -.180751   -.0348522
           4 |  -.1599189   .0421797   -3.79   0.000   -.2425895   -.0772482
             |
        1.sg |  -.0210292   .0260818   -0.81   0.420   -.0721485    .0300901
             |
        sg#yr |
         1 1 |  -.0439559   .0287814   -1.53   0.127   -.1003664    .0124547
         1 2 |  -.0482026   .0334416   -1.44   0.149   -.1137469    .0173416
         1 3 |   -.039133   .0435136   -0.90   0.368   -.1244181     .046152
         1 4 |   .0141943   .0511154    0.28   0.781   -.0859901    .1143788
             |
   age_group |
           2 |   .0326058    .057069    0.57   0.568   -.0792474     .144459
           3 |   .1419268   .0550556    2.58   0.010    .0340198    .2498337
           4 |   .2218921   .0567502    3.91   0.000    .1106637    .3331205
             |
        race |
           2 |  -.0554974   .0498604   -1.11   0.266    -.153222    .0422273
           3 |   .0245764   .0245758    1.00   0.317   -.0235912    .0727441
           4 |  -.0210216   .0466633   -0.45   0.652     -.11248    .0704367
           5 |   .1697627   .1086749    1.56   0.118   -.0432362    .3827616
             |
          ed |
           2 |  -.0009229   .0278153   -0.03   0.974   -.0554399    .0535941
           3 |   .0965087   .0486818    1.98   0.047     .001094    .1919233
           4 |  -.0153658   .0709186   -0.22   0.828   -.1543637    .1236321
             |
         pov |
           2 |   .0160223   .0339499    0.47   0.637   -.0505184    .0825629
           3 |  -.0213043   .0341208   -0.62   0.532   -.0881798    .0455712
           4 |   .0035015   .0400793    0.09   0.930   -.0750525    .0820555
             |
    1.female |   .1193839   .0265603    4.49   0.000    .0673266    .1714412
1.hypertension |   .2037003   .0244305    8.34   0.000    .1558175    .2515832
       _cons |   .2750765   .0682769    4.03   0.000    .1412562    .4088969
-------------------------------------------------------------------------------------------------
```

```
          yr |
           1 |   .0071017   .0468613    0.15   0.880   -
.0847447   .0989482
           2 |   -.088046   .0489705   -1.80   0.072   -
.1840265   .0079345
           3 |  -.1733697   .0552584   -3.14   0.002   -
.2816742  -.0650653
           4 |  -.1913548   .0488025   -3.92   0.000    -
.287006  -.0957037
             |
        1.sg |  -.0782914   .0514809   -1.52   0.128   -
.1791922   .0226093
             |
       sg#yr |
         1 1 |   .0843866   .0614736    1.37   0.170   -
.0360994   .2048726
         1 2 |   .0849148   .0648557    1.31   0.190      -
.0422   .2120296
         1 3 |   .1065939   .0731983    1.46   0.145   -
.0368721     .25006
         1 4 |   .1439202   .0675368    2.13   0.033
.0115504   .2762899
             |
   age_group |
           2 |  -.1273936    .10738   -1.19   0.235   -
.3378544   .0830673
           3 |   .0080311    .103251    0.08   0.938   -
.1943371   .2103993
           4 |    .069285   .1051952    0.66   0.510   -
.1368937   .2754638
             |
        race |
           2 |  -.0477748   .1181047   -0.40   0.686   -
.2792558   .1837062
           3 |   .0705181   .0416673    1.69   0.091   -
.0111484   .1521846
           4 |  -.0237542   .0782404   -0.30   0.761   -
.1771026   .1295942
           5 |  -.4322815   .3115299   -1.39   0.165   -
1.042869    .178306
             |
          ed |
           2 |   .0254795   .0571006    0.45   0.655   -
.0864356   .1373947
           3 |   .1988378   .0927584    2.14   0.032
.0170347   .3806408
           4 |  -.1434955   .1316783   -1.09   0.276   -
.4015801   .1145891
             |
         pov |
```

```
            2 |  .0882115   .0543297    1.62   0.104   -.0182726   .1946957
            3 |  .0024154   .0542078    0.04   0.964   -.1038299   .1086607
            4 |  .0597654   .0718439    0.83   0.405   -.081046    .2005768
              |
     1.female |  .1389992   .0437157    3.18   0.001    .0533179   .2246805
 1.hypertension | .145581   .0406572    3.58   0.000    .0658944   .2252676
        _cons |  .3808013   .1155205    3.30   0.001    .1543852   .6072174
------------------------------------------------------------------------------
```

Nutrition labs

```
-------------------------------------------------------------------------------
                   |             Robust
 total_nutrienc_lab |    Coef.   Std. Err.    z    P>|z|    [95% Conf. Interval]
-------------------+-----------------------------------------------------------
total_nutrienc_lab |
               yr |
                1 |  1.558986    .083748   18.62   0.000    1.394843   1.723129
                2 |  1.308094   .0901874   14.50   0.000     1.13133   1.484858
                3 |  1.110304   .0948291   11.71   0.000    .9244419   1.296165
                4 |  1.024766   .1099883    9.32   0.000    .8091928   1.240339
                  |
             1.sg | -.0502992   .0908934   -0.55   0.580   -.2284469   .1278485
                  |
            sg#yr |
              1 1 | -.0669328   .0962888   -0.70   0.487   -.2556554   .1217897
              1 2 | -.0678712   .1047814   -0.65   0.517   -.2732391   .1374966
              1 3 | -.0481238   .1150993   -0.42   0.676   -.2737143   .1774667
              1 4 | -.1781222   .1361091   -1.31   0.191   -.4448912   .0886468
                  |
        age_group |
                2 |  .0794643   .0765446    1.04   0.299   -.0705604   .2294889
                3 |  .0519786   .0727534    0.71   0.475   -.0906155   .1945726
                4 |   .132348   .0742127    1.78   0.075   -.0131062   .2778021
                  |
             race |
                2 |   .050271   .0638478    0.79   0.431   -.0748683   .1754103
                3 |  .0801825   .0365544    2.19   0.028    .0085373   .1518278
                4 |  .0856064   .0541536    1.58   0.114   -.0205327   .1917456
                5 |   .093392   .1349514    0.69   0.489   -.1711078   .3578919
                  |
               ed |
                2 |  .0025906   .0459127    0.06   0.955   -.0873967   .0925779
                3 |  .0077152   .0725253    0.11   0.915   -.1344318   .1498622
                4 |  .0853736   .1753606    0.49   0.626   -.2583268   .4290741
                  |
```

```
-------------------------------------------------------------------------------
                   |             Robust
 total_nutrienc_lab |    Coef.   Std. Err.    z    P>|z|    [95% Conf. Interval]
-------------------+-----------------------------------------------------------
total_nutrienc_lab |
               yr |
                1 |  1.659241   .1755207    9.45   0.000    1.315226   2.003255
                2 |   1.35931    .18876     7.20   0.000    .9893475   1.729273
                3 |  1.071193   .1938353    5.53   0.000    .6912827   1.451103
                4 |   .825339   .1826911    4.52   0.000    .4672709   1.183407
                  |
             1.sg |  .2124667   .2241863    0.95   0.343   -.2269303   .6518638
                  |
            sg#yr |
              1 1 | -.2670844    .222487   -1.20   0.230   -.7031509   .1689821
              1 2 | -.3364203   .2380799   -1.41   0.158   -.8030484   .1302078
              1 3 | -.3261039   .2512318   -1.30   0.194   -.8185091   .1663013
              1 4 | -.2702081   .2424069   -1.11   0.265   -.7453169   .2049007
                  |
        age_group |
                2 |  .3682101   .1493957    2.46   0.014    .0753999   .6610203
```

```
        pov |
          2 |  -.1037688   .0434813   -2.39   0.017   -.1889906    -.018547
          3 |  -.1457813   .0455297   -3.20   0.001   -.2350179   -.0565447
          4 |  -.2037179   .0600133   -3.39   0.001   -.3213418   -.0860941
            |
   1.acgge3 |   .0759314   .0317645    2.39   0.017    .0136741    .1381887
   1.female |   .0586966   .0398909    1.47   0.141   -.0194881    .1368813
1.hypertension | -.0163561   .0339385   -0.48   0.630   -.0828744    .0501622
      _cons |   .4134045   .1158367    3.57   0.000    .1863688    .6404403
-------------+----------------------------------------------------------
inflate     |
         yr |
          1 |  -1.408799   .1296055  -10.87   0.000  -1.662821   -1.154777
          2 |   -.552669    .128959   -4.29   0.000  -.8054239   -.2999141
          3 |  -.1362191   .1297559   -1.05   0.294   -.3905359    .1180978
          4 |  -.1972887   .1537895   -1.28   0.200   -.4987107    .1041332
            |
       1.sg |  -.1690702    .117337   -1.44   0.150   -.3990465    .0609061
            |
      sg#yr |
        1 1 |   .3971119    .146259    2.72   0.007    .1104495    .6837743
        1 2 |   .4215019   .1461365    2.88   0.004    .1350797    .7079241
        1 3 |   .3243195   .1520102    2.13   0.033     .026385    .6222539
        1 4 |   .3370033   .1826201    1.85   0.065   -.0209255    .6949321
            |
  age_group |
          2 |  -.1259268   .1238594   -1.02   0.309   -.3686868    .1168332
          3 |  -.3661917   .1231283   -2.97   0.003   -.6075188   -.1248646
          4 |  -.5981442   .1278377   -4.68   0.000   -.8487015   -.3475869
            |
       race |
          2 |  -.3310927   .1524536   -2.17   0.030   -.6298963   -.0322891
          3 |  -.1954777   .0700473   -2.79   0.005   -.3327678   -.0581876
          4 |  -.2971164   .1144427   -2.60   0.009   -.5214199   -.0728129
          5 |  -.6789325   .2910994   -2.33   0.020   -1.249477   -.1083881
            |
         ed |
          2 |   .0664279   .0826169    0.80   0.421   -.0954983    .2283541
          3 |   .0542389   .1348819    0.40   0.688   -.2101248    .3186025
          4 |  -.0955406   .2306601   -0.41   0.679   -.5476261    .3565449
            |
        pov |
          2 |  -.0297892    .082918   -0.36   0.719   -.1923054    .1327271
          3 |   .1004982   .0845356    1.19   0.235   -.0651885    .2661849
          4 |   .1621719   .1117329    1.45   0.147   -.0568206    .3811643
            |
   1.acgge3 |  -.1236903   .0629131   -1.97   0.049   -.2469978   -.0003829
   1.female |   -.355032   .0704307   -5.04   0.000   -.4930737   -.2169903
1.hypertension | -.3003677   .0653406   -4.60   0.000   -.4284329   -.1723025
      _cons |   1.267307   .1774344    7.14   0.000    .9195419    1.615072
```

```
          3 |   .4607888   .1470458    3.13   0.002    .1725842   .7489933
          4 |    .371292   .1595863    2.33   0.020    .0585087   .6840754
            |
       race |
          2 |   .0346369   .1468461    0.24   0.814   -.2531763    .32245
          3 |   .0197914    .073384    0.27   0.787   -.1240387   .1636214
          4 |  -.0047092   .0982271   -0.05   0.962   -.1972309   .1878124
          5 |  -.6454797   .1813517   -3.56   0.000   -1.000922  -.2900369
            |
         ed |
          2 |   .0776897   .0780958    0.99   0.320   -.0753753   .2307547
          3 |  -.0030923    .101879   -0.03   0.976   -.2027715   .1965869
          4 |   .1914559   .1514169    1.26   0.206   -.1053159   .4882276
            |
        pov |
          2 |   .1367627   .0818237    1.67   0.095   -.0236088   .2971343
          3 |   .1254812   .0802326    1.56   0.118   -.0317717   .2827341
          4 |  -.0763559   .1128977   -0.68   0.499   -.2976313   .1449196
            |
   1.acgge3 |   .0479154    .063974    0.75   0.454   -.0774713   .173302
   1.female |   .1648368   .0836351    1.97   0.049    .0009151   .3287585
1.hypertension | -.0765798    .067812   -1.13   0.259   -.2094889   .0563293
      _cons |  -.2547659   .2298271   -1.11   0.268   -.7052188   .195687
------------------------+----------------------------------------------------
------
inflate     |
         yr |
          1 |  -1.339702   .2498884   -5.36   0.000   -1.829475   -.84993
          2 |  -.5994264   .2480218   -2.42   0.016   -1.08554   -.1133125
          3 |  -.3120255   .2428538   -1.28   0.199   -.7880101   .1639592
```

```
-----------------------+----------------------------------------------
       /lnalpha | -.4475073   .040339  -11.09  0.000   -.5265702  -.3684444
-----------------------+----------------------------------------------
          alpha |  .6392196  .0257855            .5906272   .6918097
----------------------------------------------------------------------
```

```
        4 | -.6580842  .2509002  -2.62  0.009   -
1.14984   -.166329
          |
     1.sg |  .0663003  .2678744   0.25  0.805   -
.4587239   .5913244
          |
    sg#yr |
      1 1 | -.0450823  .3081804  -0.15  0.884   -
.6491048   .5589403
      1 2 | -.117627   .3124938  -0.38  0.707   -
.7301035   .4948495
      1 3 | -.1912329  .3060321  -0.62  0.532   -
.7910448   .408579
      1 4 |  .110722   .3165309   0.35  0.726   -
.5096671   .7311111
          |
age_group |
        2 |  .2374371  .2958753   0.80  0.422   -
.3424678   .8173421
        3 | -.0088575  .2837447  -0.03  0.975   -
.5649869   .5472719
        4 | -.1341311  .3013019  -0.45  0.656   -
.724672    .4564098
          |
     race |
        2 | -.2094821  .2552834  -0.82  0.412   -
.7098284   .2908642
        3 | -.2334425  .1506818  -1.55  0.121   -
.5287735   .0618885
        4 | -.2594366  .2032634  -1.28  0.202   -
.6578254   .1389523
        5 |  .4630683  .6262756   0.74  0.460   -
.7644093   1.690546
          |
       ed |
        2 |  .3505841  .180673    1.94  0.052   -
.0035284   .7046966
        3 |  .1573981  .278725    0.56  0.572   -
.3888928   .703689
        4 |  .2536932  .4709136   0.54  0.590   -
.6692805   1.176667
          |
      pov |
        2 |  .0654676  .1775278   0.37  0.712   -
.2824804   .4134157
        3 | -.055088   .1813672  -0.30  0.761   -
.4105612   .3003852
        4 | -.0893918  .2379396  -0.38  0.707   -
.5557449   .3769613
          |
```

		<pre> 1.acgge3	-.0906855 .1424166 -0.64 0.524 -
.3698168   .1884458
1.female	-.3492924 .1417856 -2.46 0.014 -
.6271871   -.0713978
1.hypertension	-.2966151 .1280606 -2.32 0.021 -
.5476093   -.0456209
_cons	.9722473 .390313 2.49 0.013
.2072479   1.737247
-----------------+--

/lnalpha	-.6238793 .07877 -7.92 0.000 -
.7782657   -.469493
-----------------+--
------
alpha	.5358616 .0422098
.4592017   .6253193

-----</pre>
All other labs	<pre>--
Robust
total_otherenc_lab	Coef. Std. Err. z P>	z	[95% Conf. Interval]
-----------------+--
total_otherenc_lab
yr
1	.4095288 .0402961 10.16 0.000 .3305498 .4885077
2	.2969019 .0487969 6.08 0.000 .2012618 .392542
3	.2377304 .0549999 4.32 0.000 .1299327 .3455281
4	.2785865 .0846523 3.29 0.001 .1126711 .4445019
1.sg	.0756122 .0427929 1.77 0.077 -.0082603 .1594847
sg#yr
1 1	-.116014 .0475617 -2.44 0.015 -.2092333 -.0227947
1 2	-.1239741 .057903 -2.14 0.032 -.2374618 -.0104863
1 3	-.0379108 .067455 -0.56 0.574 -.1701202 .0942986
1 4	-.014871 .1252323 -0.12 0.905 -.2603219 .2305798
age_group
2	-.092179 .0793509 -1.16 0.245 -.2477038 .0633458
3	-.1084636 .0783361 -1.38 0.166 -.2619995 .0450723
4	-.0298906 .0789958 -0.38 0.705 -.1847195 .1249383
race
2	.1034896 .071985 1.44 0.151 -.0375984 .2445776
3	.0819628 .0327499 2.50 0.012 .0177742 .1461514
4	.196272 .0521308 3.76 0.000 .0940976 .2984465
5	.3539617 .2267067 1.56 0.118 -.0903752 .7982987
             ed |
              2 | -.01683 .0427045   -0.39 0.694 -.1005293   .0668692</pre> | <pre>--
-----
                 | Robust
total_otherenc_lab | Coef. Std. Err.   z   P>|z| [95%
Conf. Interval]
-----------------+--
------
total_otherenc_lab |
             yr |
              1 | .4148735   .068661   6.04 0.000
.2803004   .5494466
              2 | .1937466 .0985285   1.97 0.049
.0006343   .386859
              3 | .2463891 .1040872   2.37 0.018
.042382   .4503962
              4 | .1916761 .0797418   2.40 0.016
.035385   .3479671
                |
           1.sg | .1993808 .0899473   2.22 0.027
.0230873   .3756744
                |
          sg#yr |
           1 1 | -.1346567 .0965533   -1.39 0.163   -
.3238978   .0545843
           1 2 | -.1361159 .1290177   -1.06 0.291   -
.388986   .1167541
           1 3 | -.179441   .1321911   -1.36 0.175   -
.4385308   .0796487
           1 4 | .072428   .1664146   0.44 0.663   -
.2537386   .3985946
                |
      age_group |</pre> |

```
                3 |  .0852573   .0769677    1.11   0.268   -.0655966    .2361111
                4 |  .0919016   .1093253    0.84   0.401    -.122372    .3061751
                  |
              pov |
                2 | -.0166834   .0407475   -0.41   0.682   -.0965471    .0631803
                3 |  -.006826   .0442941   -0.15   0.878   -.0936409    .0799888
                4 | -.0026761   .0559641   -0.05   0.962   -.1123637    .1070115
                  |
         1.acgge3 |  .3152259    .030675   10.28   0.000     .255104    .3753477
         1.female |  .1023298   .0378866    2.70   0.007    .0280735    .1765861
    1.hypertension |  .0970635   .0321485    3.02   0.003    .0340535    .1600735
            _cons |  2.210431   .1025049   21.56   0.000    2.009525    2.411337
-------------+----------------------------------------------------------------
inflate       |
              yr |
                1 | -.8127573   .1724625   -4.71   0.000   -1.150778    -.474737
                2 | -.0587618   .1461335   -0.40   0.688   -.3451782    .2276546
                3 |  .5186038   .1545397    3.36   0.001    .2157116     .821496
                4 |  .5921699   .1574928    3.76   0.000    .2834897    .9008501
                  |
            1.sg | -.1045245   .1202254   -0.87   0.385   -.3401619     .131113
                  |
            sg#yr |
              1 1 |  .3311346   .1891891    1.75   0.080   -.0396692    .7019383
              1 2 |  .3606118   .1623481    2.22   0.026    .0424154    .6788083
              1 3 |  .1146825   .1739913    0.66   0.510   -.2263342    .4556991
              1 4 |  .0705629   .1851037    0.38   0.703   -.2922337    .4333595
                  |
        age_group |
                2 |  .1770541   .1416391    1.25   0.211   -.1005533    .4546616
                3 |  .0236412   .1369956    0.17   0.863   -.2448652    .2921476
                4 | -.0954665   .1510257   -0.63   0.527   -.3914715    .2005385
                  |
            race |
                2 | -.1160258   .1921369   -0.60   0.546   -.4926073    .2605557
                3 | -.2830627   .0902978   -3.13   0.002   -.4600432   -.1060823
                4 | -.1732908   .1129073   -1.53   0.125    -.394585    .0480034
                5 | -.0728366   .2578563   -0.28   0.778   -.5782256    .4325524
                  |
              ed |
                2 |  -.019511   .0960871   -0.20   0.839   -.2078383    .1688162
                3 |  .1086972   .1300727    0.84   0.403   -.1462405     .363635
                4 | -.1023472   .2404819   -0.43   0.670    -.573683    .3689886
                  |
              pov |
                2 |  .1130161   .1022621    1.11   0.269   -.0874139    .3134461
                3 |  .2762149   .1061044    2.60   0.009     .068254    .4841758
                4 |  .2867408     .13384    2.14   0.032    .0244192    .5490625
                  |
         1.acgge3 | -.2947716   .0807919   -3.65   0.000   -.4531209   -.1364223
```

```
                2 |  .1544303   .1494999    1.03   0.302   -
.1385842   .4474447
                3 |  .2143755   .1393518    1.54   0.124   -
.0587491   .4875001
                4 |  .2904294   .1394425    2.08   0.037
.017127   .5637317
                  |
            race |
                2 |   .508912   .2763723    1.84   0.066   -
.0327677   1.050592
                3 |  .1883734   .0814178    2.31   0.021
.0287975   .3479492
                4 |  .2364006    .090529    2.61   0.009
.0589671   .4138341
                5 | -.4806937   .1914276   -2.51   0.012   -
.8558848   -.1055026
                  |
              ed |
                2 | -.0317971   .1014498   -0.31   0.754   -
.2306352   .1670409
                3 | -.1400096   .1338865   -1.05   0.296   -
.4024223   .1224032
                4 | -.0397755   .1780381   -0.22   0.823   -
.3887239   .3091728
                  |
              pov |
                2 | -.0271729   .0847938   -0.32   0.749   -
.1933657   .1390199
                3 |  .1093834   .0971961    1.13   0.260   -
.0811175   .2998843
                4 |   .238814   .1132159    2.11   0.035
.016915   .460713
                  |
         1.acgge3 |    .35416   .0687331    5.15   0.000
.2194456   .4888744
         1.female |  .1138966    .078837    1.44   0.149   -
.0406212   .2684144
    1.hypertension |  .0238164   .0679617    0.35   0.726   -
.1093861   .1570189
            _cons |  1.728831   .1795555    9.63   0.000
1.376909   2.080753
-----------------------+----------------------------------------------------------
------
inflate       |
              yr |
                1 | -.8552347   .3071156   -2.78   0.005   -
1.45717   -.2532992
                2 |  .1052147   .2241729    0.47   0.639   -
.3341562   .5445855
```

```
   1.female |  -.7334659   .0780074   -9.40   0.000   -.8863576   -.5805742
1.hypertension |  -.3629896    .076991   -4.71   0.000   -.5138891    -.21209
       _cons |  -.6969637   .1940775   -3.59   0.000   -1.077349   -.3165788
-------------+----------------------------------------------------------------
     /lnalpha |   -.160591   .0287876   -5.58   0.000   -.2170137   -.1041682
-------------+----------------------------------------------------------------
       alpha |   .8516404   .0245167                     .804919    .9010737
------------------------------------------------------------------------------
```

```
           3 |    .680505   .2774006    2.45   0.014
 .1368099    1.2242
           4 |    .506038    .243409    2.08   0.038
 .0289651   .9831109
             |
        1.sg |   .2269095   .2725865    0.83   0.405   -
 .3073502   .7611692
             |
        sg#yr |
         1 1 |   .0939872   .3927211    0.24   0.811   -
 .6757321   .8637065
         1 2 |  -.5154767   .3292015   -1.57   0.117   -
 1.1607   .1297463
         1 3 |  -.5366236   .3471808   -1.55   0.122   -
 1.217085   .1438383
         1 4 |  -.4792877    .322889   -1.48   0.138   -
 1.112139   .1535632
             |
    age_group |
           2 |  -.0642524   .4220514   -0.15   0.879   -
 .8914579   .7629532
           3 |    .212655   .4202494    0.51   0.613   -
 .6110188   1.036329
           4 |   .1865211   .4308455    0.43   0.665   -
 .6579206   1.030963
             |
        race |
           2 |   .0563709   .3347615    0.17   0.866   -
 .5997496   .7124913
           3 |  -.2108587   .1986695   -1.06   0.289   -
 .6002438   .1785264
           4 |   .0311918   .2726795    0.11   0.909   -
 .5032501   .5656337
           5 |   1.346312    .743062    1.81   0.070   -
 .1100633   2.802686
             |
          ed |
           2 |   .0507851   .2473453    0.21   0.837   -
 .4340029   .5355731
           3 |   .0444191   .2814848    0.16   0.875   -
 .507281   .5961191
           4 |   .2478551   .5905997    0.42   0.675   -
 .9096991   1.405409
             |
         pov |
           2 |   .0399157   .2542523    0.16   0.875   -
 .4584097   .538241
           3 |   .2269408   .2120195    1.07   0.284   -
 .1886097   .6424913
```

Left column (continued top-right section):

```
           4 |   .5665763   .2635237    2.15   0.032
.0500794   1.083073
             |
     1.acgge3 |   -.213463   .1852939   -1.15   0.249   -
.5766323   .1497063
      1.female |  -.9189754   .1699088   -5.41   0.000   -
1.251991   -.5859602
 1.hypertension |  -.2604579   .1694766   -1.54   0.124   -
.592626   .0717102
        _cons |  -1.270162   .4594238   -2.76   0.006   -
2.170616   -.3697079
-----------------+------------------------------------------------
------
      /lnalpha |  -.0644311   .0725506   -0.89   0.374   -
.2066277   .0777656
-----------------+------------------------------------------------
------
        alpha |   .9376007   .0680235
.8133224   1.080869
------------------------------------------------------------------
----
```

Abdomen/pelvic imaging	Left panel	Right panel

Left panel:

```
------------------------------------------------------------------------
                 |              Robust
total_abdomen_rad |   Coef.   Std. Err.    z    P>|z|   [95% Conf. Interval]
-----------------+------------------------------------------------------
total_abdomen_rad |
             yr |
              1 |  -.1955557   .1482376   -1.32   0.187   -.4860961   .0949848
              2 |   .2791447   .1522461    1.83   0.067   -.0192522   .5775416
              3 |   .1033478   .1971611    0.52   0.600   -.2830808   .4897764
              4 |   .0938826   .2018527    0.47   0.642   -.3017414   .4895067
                |
           1.sg |  -.0289865   .145065    -0.20   0.842   -.3133087   .2553358
                |
          sg#yr |
            1 1 |  -.1371555   .1757271   -0.78   0.435   -.4815744   .2072633
            1 2 |  -.0445835   .1869958   -0.24   0.812   -.4110885   .3219215
            1 3 |    .234846   .2407993    0.98   0.329   -.237112   .706804
            1 4 |  -.1935142   .2505014   -0.77   0.440   -.684488   .2974596
                |
      age_group |
              2 |   .0021282   .1160366    0.02   0.985   -.2252993   .2295557
              3 |  -.4763485   .1198021   -3.98   0.000   -.7111563   -.2415408
              4 |  -.7347591   .1263717   -5.81   0.000   -.9824432   -.487075
                |
           race |
              2 |  -.1924545   .1554725   -1.24   0.216   -.4971751   .1122661
              3 |   .0109841   .0672122    0.16   0.870   -.1207494   .1427177
              4 |   -.040195   .1035075   -0.39   0.698   -.2430661   .162676
              5 |   -.067088   .1703378   -0.39   0.694   -.400944   .2667681
```

Right panel:

```
------------------------------------------------------------------------
-----
                 |              Robust
total_abdomen_rad |   Coef.   Std. Err.    z    P>|z|
[95% Conf. Interval]
-----------------+------------------------------------------------------
-----
total_abdomen_rad |
             yr |
              1 |  -.3770861   .3668985   -1.03   0.304   -
1.096194   .3420218
              2 |  -.2942656   .3634861   -0.81   0.418   -
1.006685   .4181541
              3 |  -.5569384   .3787335   -1.47   0.141   -
1.299242   .1853656
              4 |  -.6270322   .4036666   -1.55   0.120   -
1.418204   .1641397
                |
           1.sg |  -.4301078   .3844958   -1.12   0.263   -
1.183706   .3234901
                |
          sg#yr |
            1 1 |    .354811   .4707111    0.75   0.451   -
.5677658   1.277388
            1 2 |   .3804747   .4742564    0.80   0.422   -
.5490508   1.31
            1 3 |   .3934004   .4714757    0.83   0.404   -
.530675   1.317476
```

```
                |
             ed |
              2 |   .0630809   .0796354    0.79   0.428   -.0930016    .2191633
              3 |  -.0376883   .1582435   -0.24   0.812   -.3478399    .2724633
              4 |  -.1233699   .2072678   -0.60   0.552   -.5296073    .2828674
                |
            pov |
              2 |   .0138857   .0849084    0.16   0.870   -.1525318    .1803032
              3 |    -.01074    .085744   -0.13   0.900   -.1787952    .1573151
              4 |   .0156542   .1210685    0.13   0.897   -.2216358    .2529442
                |
       1.acgge3 |   .2297703   .0715577    3.21   0.001    .0895198    .3700209
       1.female |   .4384301   .0988957    4.43   0.000    .2445981     .632262
 1.hypertension |   -.020365   .0676494   -0.30   0.763   -.1529554    .1122254
          _cons |   .1002357   .2154385    0.47   0.642    -.322016    .5224874
----------------+------------------------------------------------------------
inflate         |
             yr |
              1 |  -2.661696   .9726456   -2.74   0.006   -4.568046   -.7553455
              2 |  -.3019903   .2100696   -1.44   0.151   -.7137191    .1097386
              3 |  -.0620065   .2502977   -0.25   0.804    -.552581    .428568
              4 |   .0496139   .2537707    0.20   0.845   -.4477677    .5469954
                |
           1.sg |  -.2634581   .1849179   -1.42   0.154   -.6258904    .0989743
                |
          sg#yr |
            1 1 |  -.9328259   1.941494   -0.48   0.631   -4.738084    2.872432
            1 2 |   .4513306   .2500427    1.81   0.071   -.0387441    .9414052
            1 3 |   .7435599   .2932645    2.54   0.011    .1687721    1.318348
            1 4 |   .0624302   .3318897    0.19   0.851   -.5880616     .712922
                |
      age_group |
              2 |   .3024211   .2025958    1.49   0.136   -.0946592    .6995015
              3 |   .4722787   .2061769    2.29   0.022    .0681794     .876378
              4 |   .7401905   .2233259    3.31   0.001    .3024798    1.177901
                |
           race |
              2 |   .1116444   .2579813    0.43   0.665   -.3939897    .6172785
              3 |   .1808536   .1160929    1.56   0.119   -.0466842    .4083915
              4 |  -.1386314   .2082358   -0.67   0.506    -.546766    .2695032
              5 |   .1748848   .3224224    0.54   0.588   -.4570516    .8068211
                |
             ed |
              2 |   .1842661   .1358511    1.36   0.175   -.0819972    .4505294
              3 |   .0114366   .2499639    0.05   0.964   -.4784836    .5013569
              4 |   .2939916   .3763352    0.78   0.435   -.4436119    1.031595
                |
            pov |
              2 |  -.0676816   .1494998   -0.45   0.651   -.3606958    .2253325
              3 |  -.1026687   .1493343   -0.69   0.492   -.3953585     .190021
```

```
            1 4 |   .2054494   .5077698    0.40   0.686   -
.7897611    1.20066
                |
      age_group |
              2 |    .557008   .3495337    1.59   0.111   -
.1280655    1.242082
              3 |  -.3375811   .3567197   -0.95   0.344   -
1.036739    .3615767
              4 |  -.3837474    .354562   -1.08   0.279   -
1.078676    .3111813
                |
           race |
              2 |   .6753875   .3454626    1.96   0.051   -
.0017067    1.352482
              3 |  -.0276354   .1689963   -0.16   0.870   -
.3588621    .3035912
              4 |   .2257692   .2283513    0.99   0.323   -
.2217911    .6733295
              5 |  -.2729298   .7962789   -0.34   0.732   -
1.833608    1.287748
                |
             ed |
              2 |  -.0895842   .1904083   -0.47   0.638   -
.4627776    .2836091
              3 |   .0442398   .3550601    0.12   0.901   -
.6516653    .7401449
              4 |  -.3848275    .399338   -0.96   0.335   -
1.167516    .3978606
                |
            pov |
              2 |  -.0961186   .2626646   -0.37   0.714   -
.6109317    .4186946
              3 |  -.0925978   .1839168   -0.50   0.615   -
.4530681    .2678726
              4 |   .0459773   .2559347    0.18   0.857   -
.4556455    .5476001
                |
       1.acgge3 |   .1131923    .166953    0.68   0.498   -
.2140296    .4404142
       1.female |   .5478602   .2461612    2.23   0.026
.0653932    1.030327
 1.hypertension |  -.1355869   .1810495   -0.75   0.454   -
.4904374    .2192635
          _cons |   .1451835   .4478017    0.32   0.746   -
.7324917    1.022859
----------------+------------------------------------------------------------
------
inflate         |
             yr |
```

```
          4 |  -.2108849   .2208695   -0.95  0.340   -.6437811    .2220114
            |
   1.acgge3 |  -.4641795   .1285757   -3.61  0.000   -.7161832   -.2121758
   1.female |  -.8243302    .145736   -5.66  0.000   -1.109968   -.5386928
1.hypertension |  -.3119441   .1177155   -2.65  0.008   -.5426622    -.081226
      _cons |   .7209514   .3388766    2.13  0.033    .0567654    1.385137
-------------+----------------------------------------------------------------
    /lnalpha |   .8754131     .09037    9.69  0.000    .6982913    1.052535
-------------+----------------------------------------------------------------
       alpha |   2.399867   .2168759                   2.010315    2.864904
------------------------------------------------------------------------------
```

```
          1 |  -1.460028   .7154003   -2.04  0.041   -
2.862187   -.0578694
          2 |  -.1933092   .4957911   -0.39  0.697   -
1.165042    .7784234
          3 |  -.3782036   .5882908   -0.64  0.520   -
1.531232    .7748252
          4 |  -.2806862    .587517   -0.48  0.633   -
1.432198    .8708259
            |
      1.sg |   -.189997   .6041236   -0.31  0.753   -
1.374058    .9940635
            |
     sg#yr |
       1 1 |  -.9475196   2.316719   -0.41  0.683   -
5.488205    3.593166
       1 2 |   .1330086   .7938184    0.17  0.867   -
1.422847    1.688864
       1 3 |   .6734185   .8118058    0.83  0.407   -
.9176917    2.264529
       1 4 |  -1.216738   1.317379   -0.92  0.356   -
3.798753    1.365277
            |
  age_group |
          2 |   1.027238   .9856948    1.04  0.297   -
.9046883    2.959164
          3 |   .1812561   1.098274    0.17  0.869   -
1.971322    2.333834
          4 |    .94006   1.031286    0.91  0.362   -
1.081224    2.961344
            |
      race |
          2 |    .472357   .7147267    0.66  0.509   -
.9284817    1.873196
          3 |  -.2528133   .4685397   -0.54  0.589   -
1.171134    .6655077
          4 |   .5083793   .3971742    1.28  0.201   -
.2700678    1.286826
          5 |   1.564577   1.274361    1.23  0.220   -
.9331244    4.062278
            |
        ed |
          2 |   .1731931   .4248122    0.41  0.683   -
.6594235     1.00581
          3 |   1.247486    .646371    1.93  0.054   -
.019378     2.51435
          4 |  -.2446681   1.014291   -0.24  0.809   -
2.232642    1.743306
            |
       pov |
```

```
                2 |  -.3886233  .5700626  -0.68  0.495  -
1.505925   .7286788
                3 |  -1.128957   .531611  -2.12  0.034  -
2.170895  -.0870183
                4 |  -.5109999  .6143795  -0.83  0.406  -
1.715162   .6931618
                  |
        1.acgge3 |  -.6081891  .4441937  -1.37  0.171  -
1.478793   .2624144
         1.female |  -.3411348  .6038288  -0.56  0.572  -
1.524618   .8423479
   1.hypertension |  -.2855956  .4094547  -0.70  0.485  -
1.088112   .5169208
            _cons |   .125618  1.150809   0.11  0.913  -
2.129925   2.381161
-----------------+-----------------------------------------------
------
         /lnalpha |  1.029773  .1608771   6.40  0.000
.7144595   1.345086
-----------------+-----------------------------------------------
------
            alpha |   2.80043  .4505251          2.043082
3.838517
------------------------------------------------------------------
-----
```

All other imaging

```
-----------------------------------------------------------------------
               |          Robust
 total_other_rad |   Coef.  Std. Err.   z   P>|z|   [95% Conf. Interval]
---------------+-------------------------------------------------------
total_other_rad      |
            yr |
            1 |  -.0379002  .0622005  -0.61  0.542  -.1598109   .0840106
            2 |   .0398072  .0663583   0.60  0.549  -.0902527   .169867
            3 |   .1324769  .0762029   1.74  0.082  -.0168781   .2818319
            4 |   .1828783  .0767969   2.38  0.017   .032359   .3333975
              |
          1.sg |   .0040713  .0532781   0.08  0.939   -.100352   .1084945
              |
         sg#yr |
          1 1 |   .0194712   .071259   0.27  0.785  -.1201938   .1591362
          1 2 |   .1051079  .0752471   1.40  0.162  -.0423736   .2525894
          1 3 |    .11319  .0935499   1.21  0.226  -.0701644   .2965444
          1 4 |   .1096833  .0966688   1.13  0.257  -.0797841   .2991506
              |
     age_group |
            2 |   .3760606  .0913967   4.11  0.000   .1969263   .5551949
            3 |   .5220962  .0828653   6.30  0.000   .3596831   .6845093
            4 |   .7297252  .0849387   8.59  0.000   .5632483   .8962021
              |
          race |
```

```
-----------------------------------------------------------------------
-----
               |          Robust
 total_other_rad |    Coef.  Std. Err.   z   P>|z|   [95%
Conf. Interval]
---------------+-------------------------------------------------------
------
total_other_rad      |
            yr |
            1 |  -.0425677  .0859381  -0.50  0.620  -
.2110033   .1258679
            2 |  -.0413477  .0939453  -0.44  0.660  -
.2254771   .1427816
            3 |   .0043744  .0798881   0.05  0.956  -
.1522035   .1609522
            4 |    .087672  .0914481   0.96  0.338  -
.091563   .266907
              |
          1.sg |   .0271132    .09187   0.30  0.768  -
.1529487   .2071751
              |
         sg#yr |
          1 1 |   .0069314  .1235316   0.06  0.955  -
.2351861    .249049
```

2	-.0793666	.0872523	-0.91	0.363	-.250378	.0916448
3	-.0753587	.0393573	-1.91	0.056	-.1524976	.0017802
4	-.1118873	.0577348	-1.94	0.053	-.2250454	.0012708
5	-.1790106	.1093398	-1.64	0.102	-.3933126	.0352914
ed						
2	.0149535	.0507005	0.29	0.768	-.0844176	.1143247
3	-.0710783	.0608643	-1.17	0.243	-.1903701	.0482135
4	-.030884	.1395554	-0.22	0.825	-.3044076	.2426396
pov						
2	.0827759	.048277	1.71	0.086	-.0118453	.1773971
3	.1429467	.0470154	3.04	0.002	.0507983	.2350951
4	.1655348	.0605408	2.73	0.006	.0468769	.2841926
1.acgge3	.3178294	.0337396	9.42	0.000	.251701	.3839577
1.female	.4084991	.0497948	8.20	0.000	.3109032	.5060951
1.hypertension	.1209183	.0361493	3.34	0.001	.0500671	.1917696
_cons	.2434356	.1137372	2.14	0.032	.0205147	.4663566

inflate |

yr						
1	-.0732541	.1469905	-0.50	0.618	-.3613502	.214842
2	.2456098	.1324116	1.85	0.064	-.013912	.5051317
3	.5382672	.1654236	3.25	0.001	.2140428	.8624915
4	.396837	.1839154	2.16	0.031	.0363695	.7573045
1.sg	.0169837	.1250122	0.14	0.892	-.2280357	.2620031
sg#yr						
1 1	-.0318984	.1668513	-0.19	0.848	-.3589208	.2951241
1 2	.1564648	.1526964	1.02	0.306	-.1428146	.4557442
1 3	-.0649259	.1876706	-0.35	0.729	-.4327534	.3029016
1 4	.0744849	.2122038	0.35	0.726	-.3414269	.4903968
age_group						
2	.1510374	.1520753	0.99	0.321	-.1470247	.4490994
3	-.4830356	.148784	-3.25	0.001	-.7746469	-.1914243
4	-.6764059	.1582875	-4.27	0.000	-.9866438	-.3661681
race						
2	.0750496	.2284712	0.33	0.743	-.3727458	.522845
3	-.0420216	.0877622	-0.48	0.632	-.2140324	.1299892
4	.0069411	.1244268	0.06	0.956	-.236931	.2508133
5	.1996168	.2727378	0.73	0.464	-.3349394	.734173
ed						
2	-.0380572	.1112456	-0.34	0.732	-.2560947	.1799802
3	-.0173422	.1484819	-0.12	0.907	-.3083614	.2736769
4	.0435651	.2265942	0.19	0.848	-.4005514	.4876815

Right column:

1 2	.0118572	.1257575	0.09	0.925	-.2346229	.2583373
1 3	.0378931	.119397	0.32	0.751	-.1961207	.2719069
1 4	.0247047	.1266488	0.20	0.845	-.2235223	.2729317
age_group						
2	.6737685	.237	2.84	0.004	.209257	1.13828
3	.9024551	.239862	3.76	0.000	.4323341	1.372576
4	1.100449	.2385826	4.61	0.000	.6328353	1.568062
race						
2	.2827378	.2569843	1.10	0.271	-.2209421	.7864178
3	-.0234579	.0687502	-0.34	0.733	-.1582059	.1112902
4	-.023985	.1032952	-0.23	0.816	-.2264398	.1784698
5	-.2219829	.3027519	-0.73	0.463	-.8153657	.3713999
ed						
2	.0257687	.0873655	0.29	0.768	-.1454645	.1970018
3	-.0821178	.0991588	-0.83	0.408	-.2764656	.11223
4	-.384681	.1771849	-2.17	0.030	-.7319569	-.037405
pov						
2	.0004689	.0896229	0.01	0.996	-.1751888	.1761266
3	.167358	.0897601	1.86	0.062	-.0085686	.3432847
4	.2772439	.1097998	2.52	0.012	.0620402	.4924476
1.acgge3	.4105169	.0650012	6.32	0.000	.283117	.5379168
1.female	.5195116	.0788069	6.59	0.000	.365053	.6739702
1.hypertension	.0825699	.0654193	1.26	0.207	-.0456495	.2107893
_cons	-.2616713	.2670422	-0.98	0.327	-.7850643	.2617218

```
                         |
                     pov |
                       2 |  .0240829   .1023607    0.24   0.814   -.1765404    .2247063
                       3 |  .0004172   .1031103    0.00   0.997   -.2016753    .2025097
                       4 | -.0144732   .1356775   -0.11   0.915   -.2803963    .2514499
                         |
                1.acgge3 | -.5744171   .0787924   -7.29   0.000   -.7288472   -.4199869
                1.female | -1.010101   .0879681  -11.48   0.000   -1.182515   -.8376864
          1.hypertension | -.2450277   .0786258   -3.12   0.002   -.3991315   -.0909239
                   _cons |  .4584943   .1965485    2.33   0.020    .0732664    .8437223
-------------------------+----------------------------------------------------------
                 /lnalpha | -.2616188   .0513702   -5.09   0.000   -.3623026    -.160935
-------------------------+----------------------------------------------------------
                   alpha |  .7698044    .039545                    .6960717    .8513474
---------------------------------------------------------------------------------------
```

```
------------------------+----------------------------------------------------------
                                                                                 ------
inflate                 |
                     yr |
                      1 |  .0495726   .2355439    0.21   0.833   -
.412085    .5112301
                      2 |   .109554   .2362517    0.46   0.643   -
.3534908    .5725989
                      3 |   .252766    .235063    1.08   0.282   -
.207949    .713481
                      4 |  .0635375   .2574814    0.25   0.805   -
.4411167    .5681917
                        |
                   1.sg |  .1004787   .2579158    0.39   0.697   -
.4050269    .6059843
                        |
                  sg#yr |
                    1 1 | -.3976554   .3361245   -1.18   0.237   -
1.056447    .2611365
                    1 2 | -.0863065   .3217016   -0.27   0.788   -
.7168301    .544217
                    1 3 | -.2370975   .3278396   -0.72   0.470   -
.8796513    .4054563
                    1 4 | -.2523936   .3415005   -0.74   0.460   -
.9217222    .416935
                        |
              age_group |
                      2 |  .8721561   .6170966    1.41   0.158   -
.3373311    2.081643
                      3 |  -.158068   .6323591   -0.25   0.803   -
1.397469    1.081333
                      4 | -.3161012   .6342747   -0.50   0.618   -
1.559257    .9270543
                        |
                   race |
                      2 |  .1306915   .3634339    0.36   0.719   -
.5816258    .8430088
                      3 |  .1176487   .1831661    0.64   0.521   -
.2413502    .4766475
                      4 | -.0550087   .2556491   -0.22   0.830   -
.5560718    .4460544
                      5 |  .9091766   .4211653    2.16   0.031
.0837077    1.734645
                        |
                     ed |
                      2 |  .0346757   .2029396    0.17   0.864   -
.3630786    .43243
                      3 |  .1384436    .323627    0.43   0.669   -
.4958536    .7727408
```

```
             4 |  -.3354283  .6525974  -0.51  0.607  -
1.614496   .9436391
               |
           pov |
             2 |  -.2746414  .2329163  -1.18  0.238  -
.731149    .1818662
             3 |  -.4142622  .2385675  -1.74  0.082  -
.8818459   .0533214
             4 |  -.1818734  .3037588  -0.60  0.549  -
.7772296   .4134828
               |
       1.acgge3 |  -.3597876  .1653958  -2.18  0.030  -
.6839574   -.0356178
       1.female |  -1.22646   .1526042  -8.04  0.000  -
1.525559   -.9273612
   1.hypertension |  -.1687529  .1666045  -1.01  0.311  -
.4952918   .1577859
         _cons |  .1450575   .6495473   0.22  0.823  -
1.128032   1.418147
-----------------------+------------------------------------------------------
------
       /lnalpha |  -.4301555  .0808482  -5.32  0.000  -
.5886151   -.271696
-----------------------+------------------------------------------------------
------
         alpha |  .6504079   .0525843
.5550955   .7620859
--------------------------------------------------------------------------------
-----
```

eTable 9: STATA outputs for all models

a. The zero-inflated negative binomial model regression outputs were extracted directly from the STATA 17 log files. For each outcome, the coefficients for both the inflated part and main part of the model were provided. Negative binomial models were used for PCP and specialist visits due to convergence issues

Outcome Measure	Variable	Estimate	P-value	Lower limit of 95% CI	Upper limit of 95% CI
eTable 10. Final Time Series Model After Backward Variable Selection for the Differenced Outcomes Between SG and RYBG[a]					
Total Ambulatory Costs	Intercept	-1.186254284	0.959460108	-69.59506368	67.22255511
	trend	*Eliminated*			
Laboratory Costs	Intercept	8.53756081	0.005261583	4.826914892	12.24820673
	trend	*Eliminated*			
Office Visit Costs	Intercept	1.484189963	0.728178844	-10.89341035	13.86179028
	trend	*Eliminated*			
Radiology Costs	Intercept	7.577394754	0.514911946	-25.17494862	40.32973813
	trend	*Eliminated*			
Prescription Costs	Intercept	-36.49429201	0.058274095	-75.37761809	2.389034073
	trend	*Eliminated*			
All Other outpatient Costs	Intercept	17.7088922	0.719825331	-125.2809275	160.6987119
	trend	*Eliminated*			

eTable 10: Final Time Series Model After Backward Variable Selection for the Differenced Outcomes between SG and RYGB – Checking for Parallel Trends

a. We used backward variable selection with a cutoff of p-value at 0.05 for the time series models. All models started with both intercept and trend(i.e. quarter). Intercept was kept in the final model regardless of the p-value. As shown in the output, the trend term was eliminated from all models, providing evidence of parallel trend for all outcomes.

eReferences.

1. Smith LH, VanderWeele TJ. Bounding Bias Due to Selection. *Epidemiology*. 2019;30(4):509-516. doi:10.1097/EDE.0000000000001032

2. Mathur MB, VanderWeele TJ. Sensitivity Analysis for Unmeasured Confounding in Meta-Analyses. *J Am Stat Assoc*. 2020;115(529):163-172. doi:10.1080/01621459.2018.1529598

3. VanderWeele TJ, Ding P. Sensitivity Analysis in Observational Research: Introducing the E-Value. *Ann Intern Med*. 2017;167(4):268-274. doi:10.7326/M16-2607