

Life-Saving Drugs, V3

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Introduction

Methods

Overview

Data Sources

We drew from five data primary sources. First, we use annual reports from the Center of Medicare & Medicaid Services (CMS) to collect state-level enrollment numbers for Medicaid and Medicare from 2004 to 2020. Second, we use the Behavioral Risk Factor Surveillance System (BRFSS) from the Centers for Disease Control and Prevention to estimate the proportion of individuals in each program with type 2 diabetes. Third, we use the National Drug Code Directory (NDCD) from the Food & Drug Administration to flag SGLT-2 and GLP-1 NDC codes. Finally, we use the State Drug Utilization Data (SDUD) and the Medicare Part D Prescribers dataset both made available by CMS, which provided state-by-year drug utilization numbers.

Results

Discussion

X

here() starts at /Users/mpl48/Documents/work/Drugs, Negligence, and Death

Table X: GLP-1 & SGLT-2 Days Supplied				
Medicaid			Medicare	
Year	Top Quintile	Bottom Quintile	Top Quintile	Bottom Quintile
2005	168.37	0.79		
2006	718.30	23.95		
2007	500.67	44.75		
2008	614.42	34.18		
2009	487.46	23.33		
2010	1,272.43	187.02		
2011	1,780.21	290.66		
2012	2,396.02	257.96		
2013	1,632.08	125.45	5,563.53	2,686.69
2014	1,799.43	120.94	7,549.49	3,629.49
2015	2,906.06	275.59	11,975.44	5,743.98

Table X: GLP-1 & SGLT-2 Days Supplied				
Year	Medicaid		Medicare	
	Top Quintile	Bottom Quintile	Top Quintile	Bottom Quintile
2016	4,172.17	529.47	15,996.42	7,913.61
2017	6,812.94	771.81	20,682.61	11,784.82
2018	8,529.77	1,030.28	25,154.99	14,724.97
2019	7,838.45	1,380.35	35,851.19	20,432.88
2020	12,427.55	2,199.14		

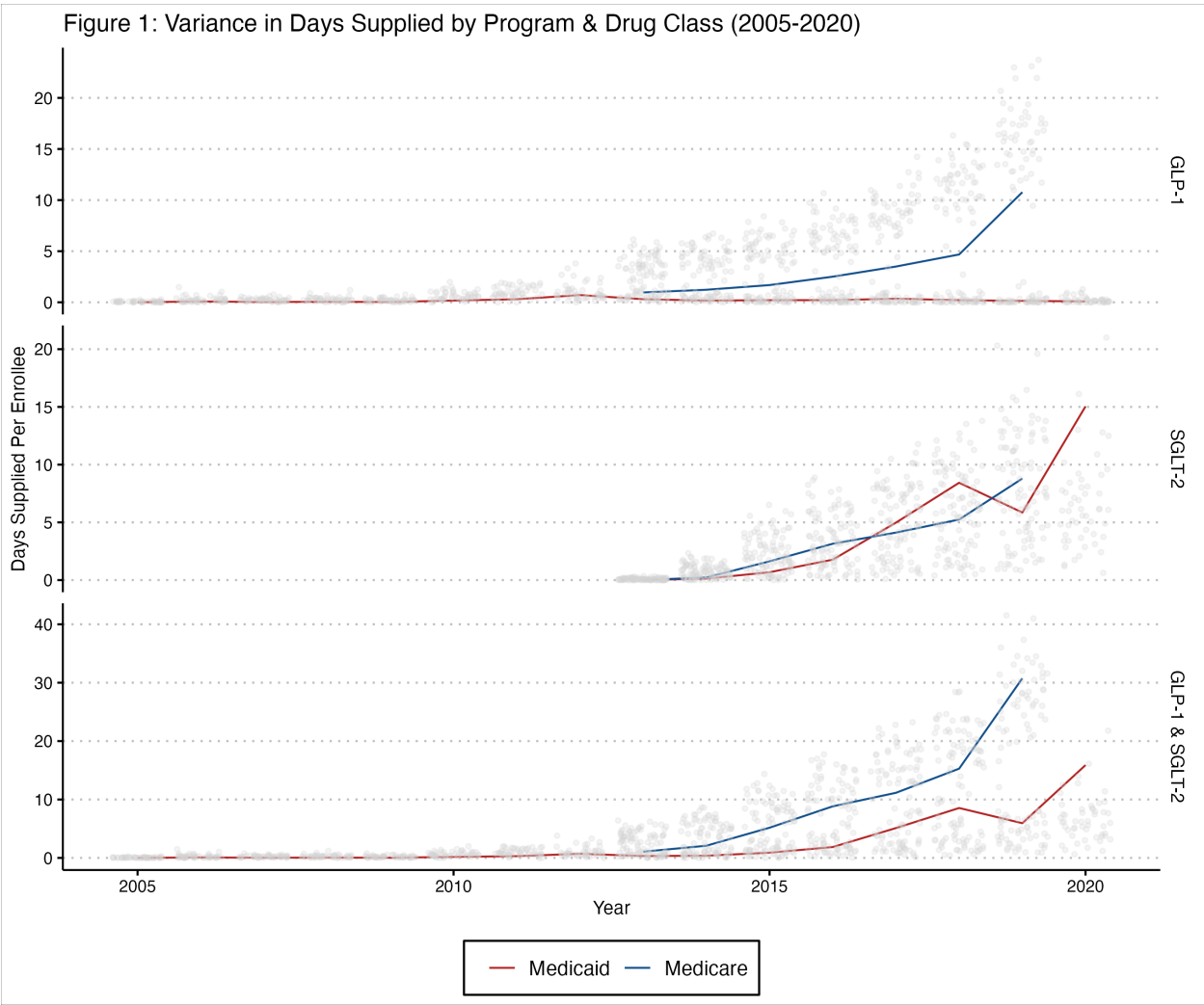


Figure 1: this is a caption

Figure X: Days Supplied Per Capita

Fig X.A:

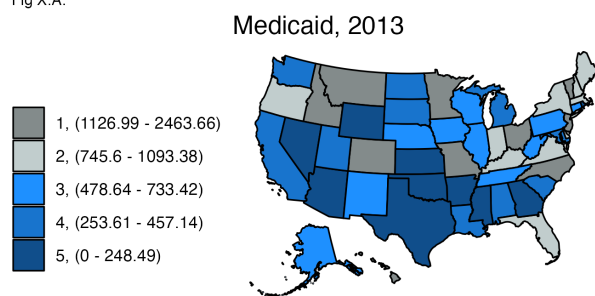


Fig X.B:

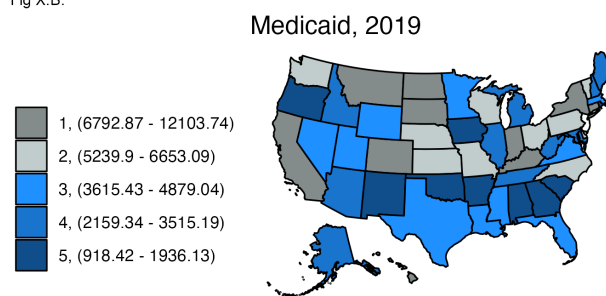


Fig X.C:

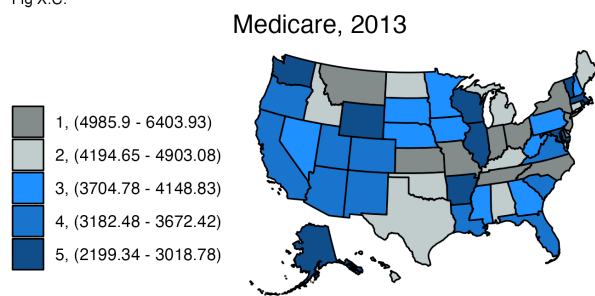


Fig X.D:

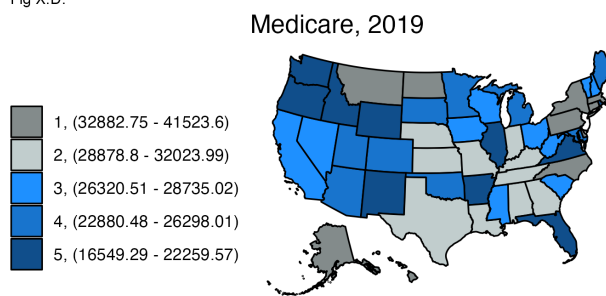


Figure 2: this is a caption

Table X: GLP-1 & SGLT-2 Days Supplied

Year	Mean (SD)	
	Medicaid	Medicare
2005	59.53 (66.64)	
2006	260.98 (291.09)	
2007	243.18 (164.35)	
2008	274.17 (229.46)	
2009	210.01 (169.99)	
2010	646.15 (416.76)	
2011	993.76 (549.07)	
2012	1009.22 (840.7)	
2013	724 (569.23)	4022.79 (1030.05)
2014	841.83 (615.03)	5604.57 (1443.51)
2015	1443.24 (944.51)	8753.49 (2273.94)
2016	2103.56 (1363.75)	11746.74 (2971.8)
2017	3186.49 (2260.46)	16004.66 (3338.64)
2018	3990.88 (2923.16)	19989.81 (3909.21)
2019	4446.04 (2437.61)	27876.22 (5545.62)
2020	6706.73 (3986.11)	

Figure X: Quintile Rank Transition
Fig X.A:
Medicaid, 2013 to 2019

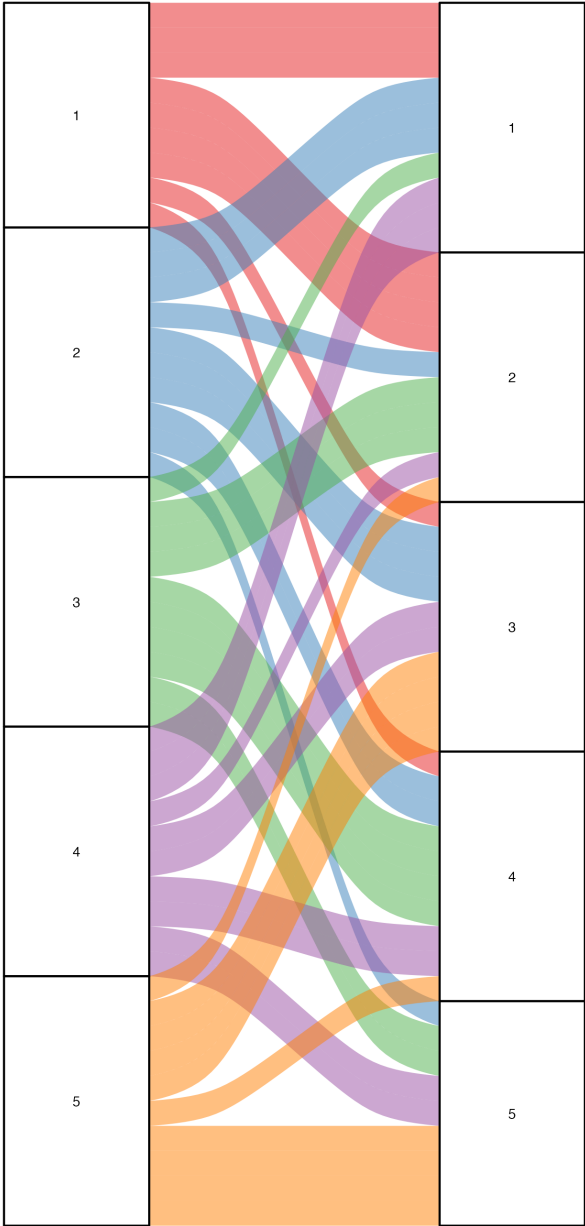


Fig X.B:
Medicare, 2013 to 2019

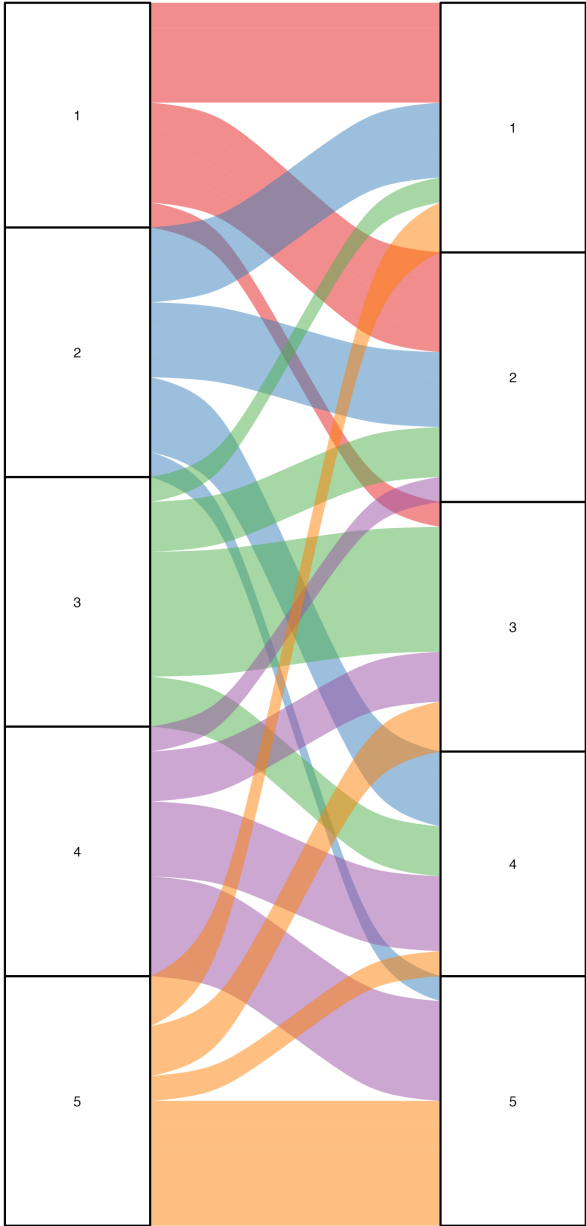


Figure 3: this is a caption

Table X: GLP-1 & SGLT-2 Days Supplied					
Year	Top Quintile	Second Quintile	Third Quintile	Fourth Quintile	Bottom Quintile
2013	3597.81 (2064.19)	2753.84 (1889.92)	2218.54 (1684.32)	1890.71 (1573.7)	1406.07 (1326.03)
2014	4674.46 (2984.28)	3737.27 (2783.57)	3096.22 (2485.01)	2587.69 (2172.84)	1875.22 (1833.83)
2015	7440.75 (4701.5)	5819.38 (4187.83)	4871.97 (3713.86)	4115.72 (3348.16)	3009.78 (2853.54)
2016	10084.3 (6106.52)	8008.91 (5569.89)	6534.64 (4860.48)	5460.46 (4395.28)	4221.54 (3853.85)
2017	13747.77 (7216.39)	10870.87 (7149.17)	8972.25 (6634.71)	7693.46 (6324.62)	6278.32 (5755.86)
2018	16842.38 (8764.92)	13529.07 (8902.85)	11282.9 (8439.22)	9934.55 (8172.25)	7877.62 (7178.14)
2019	21844.82 (14573.03)	18336.22 (12689)	15898.33 (11990.9)	13819.66 (11350.12)	10906.62 (9853.33)

Table X: Program Characteristics by Quintile					
Program	Variable	Top Quintile	Second Quintile	Third Quintile	Fourth Quintile
Medicaid	Rate of Days Supplied per 1000 Enrollees	4815.06 (2911.09)	3015.52 (1879.55)	2023.61 (1265.03)	1316.58 (849.72)
	Population of Program	207211.57 (284154.87)	109967.2 (164785.28)	137551.05 (141628.2)	152790.84 (195932.59)
	Percent Diabetic in Program	9.89 (2.44)	10.34 (2.15)	10.68 (2.27)	10.59 (2.6)
Medicare	Rate of Days Supplied per 1000 Enrollees	17454.61 (9849.54)	15000.36 (8666.71)	13083.49 (7852.09)	11684.06 (7207.02)
	Population of Program	275157.3 (225669.69)	241176.22 (248919.28)	303782.49 (341169.92)	208194.27 (224878.24)
	Percent Diabetic in Program	21.26 (2.69)	22.2 (3.05)	21.4 (3.04)	20.58 (2.81)

Table X: Program Characteristics by Quintile					
		Mean (SD)			
Program	Variable	Top Quintile	Second Quintile	Third Quintile	Fourth Quintile
Medicaid	Medicaid Spending (Total, Millions of \$)	11616.31 (14971.96)	6024.86 (8368.19)	7261 (6823.53)	7146 (8260)
	Medicare Spending (Total, Millions of \$)	13258.45 (14225.28)	8199.21 (9807.1)	11513.91 (12682.75)	10297 (11219)
	Medicaid Spending (Per Capita, \$)	7988.53 (1648.84)	7344.01 (1355.1)	7420.76 (1927.01)	6681 (1498)
	Medicare Spending (Per Capita, \$)	10013.24 (1309.41)	9613.51 (1003.15)	10131.13 (1363.59)	9768 (1234)
	Enrollment	207211.57 (284154.87)	109967.2 (164785.28)	137551.05 (141628.2)	15279 (19593)
	Total Federally Qualified Community Health Clinics	131.87 (152.62)	90.5 (96.36)	118.77 (90.85)	134 (125)
	Total Federal Medical Doctors	546.39 (623.22)	380.67 (463.19)	593.41 (636.49)	550 (601)
	Medicaid Spending (Total, Millions of \$)	10571.81 (13341.53)	6251.9 (6708.96)	8916.91 (11621.02)	6681 (8054)
	Medicare Spending (Total, Millions of \$)	12143.8 (10596.92)	9404.26 (9689.68)	13193.99 (15878.44)	9416 (1080)
	Medicaid Spending (Per Capita, \$)	7943.49 (1707.8)	6890.71 (1449.65)	6890.9 (1507.55)	6862 (1474)
Medicare	Medicare Spending (Per Capita, \$)	10329.83 (1192.55)	9896.48 (1115.08)	9987.18 (1192.3)	9792 (1158)
	Enrollment	275157.3 (225669.69)	241176.22 (248919.28)	303782.49 (341169.92)	2167 (22616)
	Total Federally Qualified Community Health Clinics	108.91 (70.46)	116.04 (82.46)	151.44 (171.97)	115 (129)
	Total Federal Medical Doctors	455.21 (391.14)	422.8 (513.69)	595.17 (756.54)	571 (630)