

Supplementary Materials

Supplementary Table 1. Test of parallel trends: changes in outcomes using 2013 as a pseudo-policy change year among newly diagnosed young adult cancer patients aged 18-39 years, 2011-2013

Outcome	Adjusted DD ^a (95% CI), Percentage points	<i>P</i> ^b
Health insurance status		
Uninsured	-0.8 (-1.4, -0.2)	0.01
Medicaid	1.3 (0.5, 2.1)	0.002
Private insurance	0.0 (-1.0, 1.0)	0.99
Cancer Stage at Diagnosis		
Stage I	1.1 (-0.1, 2.3)	0.07
Stage IV	0.7 (-0.1, 1.5)	0.08

^aAdjusted difference-in-difference (DD) estimate for each outcome is the regression coefficient on an interaction term between residence in expansion states and an indicator for a pseudo-policy change (2013 vs. 2011-2012), with regression models also controlling for sex, age group, race/ethnicity, zip-code level income, and MSA, as well as residence state adjusted as a random effect. Data limited to the pre-expansion period only. CI: confidence interval.

^b*P* values were calculated from linear probability regression models and reflect two-sided test of statistical significance.

Supplementary Table 2: Changes in health insurance coverage associated with Medicaid expansion by sociodemographic factors among newly diagnosed cancer patients aged 18-39 years, 2011-2016^a

Outcomes (by sociodemographic factors)	Expansion states			Non-expansion states			Crude model		Adjusted model ^b	
	Pre-ME, %	Post-ME, %	Absolute Difference (95% CI), ppt	Pre-ME, %	Post-ME, %	Absolute Difference (95% CI), ppt	DD (95% CI), ppt	<i>P</i> ^c	DD (95% CI), ppt	<i>P</i> ^c
By age group										
Uninsured										
18-25 years	6.5	2.7	-3.9 (-4.3, -3.5)	14.1	11.2	-2.9 (-3.9, -2.0)	-1.0 (-2.0, 0.1)	0.0688	-1.0 (-1.9, -0.1)	0.0337
26-34 years	6.6	3.3	-3.4 (-3.7, -3.1)	13.8	11.2	-2.6 (-3.1, -2.0)	-0.8 (-1.5, -0.2)	0.0151	-0.8 (-1.4, -0.2)	0.0064
35-39 years	5.8	3.0	-2.8 (-3.1, -2.5)	11.7	10.3	-1.4 (-2.0, -0.9)	-1.4 (-2.0, -0.7)	<0.001	-1.3 (-1.9, -0.8)	<0.001
Medicaid										
18-25 years	18.6	23.3	4.7 (3.8, 5.5)	15.6	13.9	-1.8 (-2.8, -0.8)	6.4 (5.1, 7.7)	<0.001	5.9 (4.6, 7.3)	<0.001
26-34 years	17.9	22.7	4.9 (4.3, 5.4)	14.6	13.5	-1.2 (-1.8, -0.6)	6.0 (5.2, 6.9)	<0.001	5.6 (4.7, 6.4)	<0.001
35-39 years	15.6	19.9	4.3 (3.8, 4.9)	13.0	12.0	-0.9 (-1.5, -0.3)	5.3 (4.4, 6.1)	<0.001	5.0 (4.2, 5.8)	<0.001
Private										
18-25 years	70.5	70.9	0.3 (-0.6, 1.3)	63.6	69.4	5.8 (4.5, 7.1)	-5.4 (-7.1, -3.8)	<0.001	-5.1 (-6.6, -3.6)	<0.001
26-34 years	70.2	69.8	-0.4 (-1.0, 0.2)	64.6	68.9	4.3 (3.5, 5.1)	-4.7 (-5.7, -3.7)	<0.001	-4.5 (-5.4, -3.5)	<0.001
35-39 years	73.1	72.4	-0.7 (-1.3, -0.1)	67.7	70.5	2.8 (2.0, 3.7)	-3.5 (-4.6, -2.5)	<0.001	-3.5 (-4.5, -2.5)	<0.001
By race/ethnicity										
Uninsured										
Non-Hispanic White	4.9	1.8	-3.0 (-3.2, -2.8)	8.9	6.4	-2.5 (-2.9, -2.2)	-0.5 (-0.9, -0.1)	0.0224	-0.4 (-0.8, -0.1)	0.0267
Non-Hispanic Black	8.8	3.0	-5.8 (-6.4, -5.1)	15.5	12.7	-2.8 (-3.8, -1.8)	-3.0 (-4.2, -1.8)	<0.001	-2.3 (-3.5, -1.1)	<0.001
Hispanic	14.0	9.3	-4.7 (-5.5, -3.9)	30.7	31.2	0.5 (-1.0, 1.9)	-5.1 (-6.8, -3.5)	<0.001	-4.7 (-6.2, -3.2)	<0.001
Medicaid										
Non-Hispanic White	12.5	16.6	4.1 (3.7, 4.5)	11.6	10.6	-1.0 (-1.4, -0.5)	5.1 (4.5, 5.7)	<0.001	4.7 (4.1, 5.3)	<0.001
Non-Hispanic Black	31.4	37.7	6.3 (4.9, 7.7)	24.2	23.7	-0.5 (-1.7, 0.8)	6.8 (4.9, 8.7)	<0.001	6.7 (4.8, 8.5)	<0.001
Hispanic	32.4	37.7	5.3 (4.1, 6.5)	16.5	13.4	-3.1 (-4.2, -1.9)	8.3 (6.7, 10.0)	<0.001	8.4 (6.7, 10.1)	<0.001
Private										
Non-Hispanic White	78.1	77.6	-0.4 (-0.9, 0.01)	73.1	77.3	4.2 (3.6, 4.8)	-4.7 (-5.4, -3.9)	<0.001	-4.6 (-5.3, -3.9)	<0.001
Non-Hispanic Black	52.1	53.0	0.9 (-0.6, 2.3)	51.8	55.4	3.6 (2.1, 5.0)	-2.7 (-4.7, -0.6)	0.0099	-3.6 (-5.6, -1.6)	<0.001
Hispanic	46.6	48.5	1.9 (0.6, 3.1)	44.6	47.5	3.0 (1.4, 4.5)	-1.1 (-3.1, 0.9)	0.2813	-1.5 (-3.4, 0.5)	0.1415
By zip-code level median household income										
Uninsured										

High (>401 FPL)	2.6	1.5	-1.0 (-1.4, -0.6)	5.0	4.4	-0.6 (-1.6, 0.4)	-0.4 (-1.5, 0.6)	0.4363	-0.6 (-1.5, 0.3)	0.1929
Middle (139-400)	6.5	3.1	-3.4 (-3.6, -3.1)	12.8	10.5	-2.3 (-2.7, -1.9)	-1.0 (-1.5, -0.6)	<0.001	-1.1 (-1.5, -0.7)	<0.001
Low (≤138 FPL)	9.9	4.9	-5.0 (-5.9, -4.0)	20.4	18.7	-1.7 (-3.3, -0.2)	-3.2 (-5.0, -1.4)	<0.001	-2.9 (-4.6, -1.2)	0.0010
Medicaid										
High (>401 FPL)	5.0	7.0	2.0 (1.4, 2.7)	3.0	2.4	-0.5 (-1.3, 0.2)	2.6 (1.6, 3.6)	<0.001	2.5 (1.3, 3.7)	<0.001
Middle (139-400)	17.2	22.2	5.0 (4.6, 5.4)	13.8	12.6	-1.2 (-1.6, -0.8)	6.2 (5.7, 6.8)	<0.001	5.5 (4.9, 6.1)	<0.001
Low (≤138 FPL)	35.0	41.9	6.9 (5.1, 8.6)	24.7	23.0	-1.7 (-3.4, -0.1)	8.6 (6.2, 11.0)	<0.001	7.5 (5.1, 9.9)	<0.001
Private										
High (>401 FPL)	89.4	88.8	-0.6 (-1.4, 0.3)	83.4	86.4	3.0 (1.3, 4.7)	-3.6 (-5.5, -1.7)	<0.001	-3.3 (-5.0, -1.6)	<0.001
Middle (139-400)	71.2	70.4	-0.8 (-1.2, -0.3)	66.5	70.6	4.1 (3.5, 4.7)	-4.9 (-5.6, -4.1)	<0.001	-4.3 (-5.0, -3.6)	<0.001
Low (≤138 FPL)	46.3	46.7	0.4 (-1.4, 2.2)	46.2	49.8	3.6 (1.7, 5.6)	-3.2 (-5.9, -0.6)	0.0161	-2.9 (-5.4, -0.3)	0.0293
By residence metropolitan statistical area (MSA) status										
Uninsured										
MSA	6.0	3.1	-3.0 (-3.2, -2.8)	13.1	11.0	-2.1 (-2.5, -1.7)	-0.9 (-1.3, -0.4)	<0.001	-0.8 (-1.2, -0.4)	<0.001
Non-MSA urban	8.2	2.8	-5.5 (-6.1, -4.8)	12.7	10.3	-2.4 (-3.4, -1.4)	-3.1 (-4.3, -1.9)	<0.001	-2.8 (-4.0, -1.7)	<0.001
Non-MSA rural	10.9	3.4	-7.5 (-9.9, -5.1)	11.4	9.8	-1.7 (-4.3, 1.0)	-5.9 (-9.5, -2.3)	0.0013	-6.0 (-9.7, -2.4)	0.0011
Medicaid										
MSA	16.9	21.3	4.4 (4.1, 4.8)	13.3	12.0	-1.3 (-1.7, -0.9)	5.7 (5.2, 6.3)	<0.001	5.3 (4.7, 5.9)	<0.001
Non-MSA urban	19.2	25.1	5.9 (4.8, 7.1)	18.8	18.3	-0.5 (-1.7, 0.7)	6.4 (4.7, 8.1)	<0.001	5.7 (4.0, 7.4)	<0.001
Non-MSA rural	20.3	29.5	9.2 (5.1, 13.3)	19.0	18.0	-0.9 (-4.3, 2.4)	10.1 (4.9, 15.4)	<0.001	10.1 (4.9, 15.2)	<0.001
Private										
MSA	72.0	71.5	-0.4 (-0.9, -0.004)	66.6	70.6	4.0 (3.4, 4.6)	-4.5 (-5.2, -3.7)	<0.001	-4.2 (-4.9, -3.5)	<0.001
Non-MSA urban	66.7	66.5	-0.2 (-1.5, 1.1)	60.3	63.6	3.3 (1.8, 4.9)	-3.5 (-5.6, -1.5)	<0.001	-3.7 (-5.7, -1.7)	<0.001
Non-MSA rural	62.0	61.2	-0.8 (-5.4, 3.8)	62.3	63.7	1.4 (-2.8, 5.6)	-2.2 (-8.4, 4.0)	0.4845	-1.9 (-8.0, 4.2)	0.5489

^aAuthors' analysis of the 2011-2016 National Cancer Database. Abbreviation: DD—difference in difference; ME—Medicaid expansion; ppt—percentage points; FPL—federal poverty level.

^bRegression models also adjusted for linear time trends, age, sex, race/ethnicity, zip-code level income, and residence metropolitan statistical area status, when applicable, as well as state adjusted as a random effect.

^cP values were calculated from linear probability regression models and reflect two-sided test of statistical significance.

Supplementary Table 3: Changes in the percentage of stage IV disease at diagnosis associated with Medicaid expansion by sociodemographic factors among newly diagnosed cancer patients aged 18-39 years, 2011-2016^{a,b}

Characteristics	Expansion states			Non-expansion states			Crude model		Adjusted model ^c	
	Pre-ME, %	Post-ME, %	Absolute Difference (95% CI), ppt	Pre-ME, %	Post-ME, %	Absolute Difference (95% CI),ppt	DD (95% CI), ppt	<i>P</i> ^e	DD (95% CI), ppt	<i>P</i> ^e
Age group										
18-25 years	12.4	12.6	0.1 (-0.7, 1.0)	13.0	12.8	-0.2 (-1.4, 0.9)	0.3 (-1.1, 1.8)	0.6432	0.3 (-1.1, 1.6)	0.7228
26-34 years	10.8	10.6	-0.2 (-0.7, 0.3)	11.4	11.8	0.5 (-0.2, 1.1)	-0.7 (-1.5, 0.1)	0.0958	-0.9 (-1.7, -0.2)	0.0188
35-39 years	11.5	11.9	0.4 (-0.1, 0.9)	12.2	12.7	0.5 (-0.1, 1.2)	-0.2 (-1.0, 0.6)	0.6855	-0.1 (-0.9, 0.7)	0.8450
Race/ethnicity ^d										
Non-Hispanic White	10.0	10.0	0.0 (-0.4, 0.4)	10.2	10.7	0.5 (-0.01, 1.0)	-0.5 (-1.1, 0.1)	0.1235	-0.5 (-1.1, 0.1)	0.0854
Non-Hispanic Black	17.3	18.1	0.8 (-0.4, 2.0)	17.1	18.1	1.0 (-0.2, 2.3)	-0.2 (-2.0, 1.5)	0.7816	-0.1 (-1.8, 1.6)	0.9449
Hispanic	14.1	13.8	-0.3 (-1.3, 0.7)	14.5	14.3	-0.1 (-1.4, 1.1)	-0.2 (-1.8, 1.4)	0.8127	-0.3 (-1.8, 1.3)	0.7529
Non-Hispanic Other	11.8	12.2	0.4 (-0.7, 1.6)	12.7	12.0	-0.6 (-2.6, 1.3)	1.1 (-1.2, 3.3)	0.3563	0.6 (-1.6, 2.8)	0.5897
Zip-code level median household income ^d										
High (>400 FPL)	8.4	9.3	0.9 (0.0, 1.7)	8.5	8.5	0.0 (-1.5, 1.5)	0.9 (-0.9, 2.6)	0.3273	0.8 (-0.9, 2.5)	0.3401
Middle (139-400 FPL)	11.4	11.4	0.1 (-0.3, 0.4)	11.6	12.1	0.5 (0.1, 1.0)	-0.5 (-1.0, 0.1)	0.1172	-0.6 (-1.1, -0.01)	0.0477
Low (≤138 FPL)	15.5	15.1	-0.4 (-1.9, 1.0)	17.9	17.4	-0.5 (-2.2, 1.1)	0.1 (-2.1, 2.3)	0.9169	0.0 (-2.1, 2.2)	0.9772
Residence MSA status ^d										
Metropolitan	11.3	11.5	0.2 (-0.1, 0.5)	11.8	12.2	0.5 (0.03, 1.0)	-0.3 (-0.9, 0.3)	0.3248	-0.3 (-0.9, 0.2)	0.2236
Non-MSA urban	11.5	11.0	-0.5 (-1.5, 0.5)	13.1	12.8	-0.3 (-1.5, 0.9)	-0.2 (-1.8, 1.4)	0.7984	-0.3 (-1.8, 1.3)	0.7285
Non-MSA rural	14.2	12.0	-2.3 (-5.8, 1.3)	13.7	13.6	-0.1 (-3.4, 3.2)	-2.2 (-7.1, 2.7)	0.3803	-2.8 (-7.6, 2.0)	0.2524

^aAuthors' analysis of the 2011-2016 National Cancer Database. Abbreviation: DD—difference in difference; ME—Medicaid expansion; ppt—percentage points; FPL—federal poverty level; MSA—metropolitan statistical area.

^bCases without applicable stages (e.g. leukemia, brain tumor) were excluded. Testicular cancer cases were excluded due to high percentage of unknown stage observed exclusively among patients with testicular cancer.

^cAdjusted model: Regression models also adjusted for linear time trends, age, sex, race/ethnicity, zip-code level income, and residence metropolitan statistical area status, when applicable, as well as state adjusted as a random effect.

^dData for unknown categories not shown.

^e*P* values were calculated from linear probability regression models and reflect two-sided test of statistical significance.

Supplementary Table 4: Changes in the percentage of stage I disease at diagnosis associated with Medicaid expansion among newly diagnosed young adult cancer patients aged 18-39 years, 2011-2016, excluding unknown stage^{a,b}

Cancer site	Expansion states			Non-expansion states			Crude model		Adjusted model ^c	
	Pre-ME, %	Post-ME, %	Absolute Difference (95% CI), ppt	Pre-ME, %	Post-ME, %	Absolute Difference (95% CI), ppt	DD (95% CI), ppt	<i>P</i> ^d	DD (95% CI), ppt	<i>P</i> ^d
All cancer types combined	54.3	56.1	1.8 (1.3, 2.3)	51.9	52.4	0.5 (-0.2, 1.1)	1.3 (0.5, 2.1)	0.0022	1.3 (0.5, 2.2)	0.0016
Thyroid	96.1	97.8	1.7 (1.3, 2.1)	94.6	96.9	2.3 (1.7, 2.9)	-0.6 (-1.3, 0.1)	0.0947	-0.7 (-1.4, -0.1)	0.0275
Female breast	32.6	35.2	2.6 (1.5, 3.7)	32.7	33.6	0.8 (-0.5, 2.2)	1.8 (-0.01, 3.5)	0.0511	1.7 (-0.1, 3.5)	0.0615
Melanoma	72.0	72.9	0.9 (-0.7, 2.4)	69.5	68.4	-1.1 (-3.3, 1.1)	1.9 (-0.7, 4.6)	0.1570	2.2 (-0.4, 4.8)	0.1035
Colon & rectum	17.6	18.1	0.4 (-1.2, 2.0)	16.6	15.9	-0.7 (-2.6, 1.2)	1.2 (-1.3, 3.7)	0.3586	1.1 (-1.4, 3.6)	0.3950
Non-Hodgkin lymphoma	33.0	32.6	-0.3 (-2.3, 1.6)	31.0	30.6	-0.3 (-2.8, 2.2)	0.0 (-3.2, 3.2)	0.9929	0.0 (-3.2, 3.2)	0.9998
Cervix	64.3	64.1	-0.2 (-2.4, 1.9)	60.9	59.8	-1.1 (-3.6, 1.4)	0.8 (-2.4, 4.1)	0.6117	0.7 (-2.5, 4.0)	0.6557
Hodgkin lymphoma	10.5	10.1	-0.4 (-1.7, 0.9)	12.5	10.8	-1.7 (-3.5, 0.1)	1.3 (-0.9, 3.5)	0.2437	1.2 (-1.0, 3.4)	0.2778
Other	48.3	49.8	1.4 (0.4, 2.5)	48.9	49.8	0.9 (-0.4, 2.2)	0.5 (-1.1, 2.2)	0.5317	1.0 (-0.6, 2.7)	0.2106

^aAuthors' analysis of the 2011-2016 National Cancer Database. Abbreviation: DD—difference in difference; ME—Medicaid expansion; ppt—percentage points.

^bCases without applicable stages (e.g. leukemia, brain tumor) were excluded. Testicular cancer cases were excluded due to high percentage of unknown stage observed exclusively among patients with testicular cancer.

^cAdjusted model: Regression models also adjusted for age, sex, race/ethnicity, zip-code level income, residence metropolitan statistical area status, and linear time trends, as well as state adjusted as a random effect.

^d*P* values were calculated from linear probability regression models and reflect two-sided test of statistical significance.

Supplementary Table 5: Changes in the percentage of stage I disease at diagnosis associated with Medicaid expansion by sociodemographic factors among newly diagnosed cancer patients aged 18-39 years, 2011-2016, excluding unknown stage^{a,b}

Characteristics	Expansion states			Non-expansion states			Crude model		Adjusted model ^c	
	Pre-ME, %	Post-ME, %	Absolute Difference (95% CI), ppt	Pre-ME, %	Post-ME, %	Absolute Difference (95% CI), ppt	DD (95% CI), ppt	<i>P</i> ^e	DD (95% CI), ppt	<i>P</i> ^e
Age group										
18-25 years	54.8	57.5	2.7 (1.4, 4.0)	53.3	53.5	0.2 (-1.6, 1.9)	2.5 (0.3, 4.7)	0.0264	2.6 (0.5, 4.7)	0.0173
26-34 years	56.4	58.2	1.9 (1.1, 2.6)	54.1	54.4	0.4 (-0.7, 1.4)	1.5 (0.2, 2.8)	0.0215	1.7 (0.5, 3.0)	0.0076
35-39 years	52.0	53.3	1.4 (0.6, 2.2)	49.4	50.1	0.7 (-0.3, 1.7)	0.7 (-0.6, 1.9)	0.3037	0.5 (-0.8, 1.8)	0.4421
Race/ethnicity ^d										
Non-Hispanic White	56.8	58.5	1.7 (1.1, 2.3)	55.7	56.0	0.3 (-0.5, 1.1)	1.4 (0.4, 2.4)	0.0070	1.4 (0.4, 2.4)	0.0076
Non-Hispanic Black	39.9	42.0	2.1 (0.5, 3.7)	38.9	38.5	-0.3 (-1.9, 1.3)	2.4 (0.2, 4.7)	0.0360	2.3 (0.04, 4.6)	0.0464
Hispanic	50.3	51.9	1.6 (0.1, 3.1)	48.8	50.1	1.3 (-0.5, 3.2)	0.3 (-2.1, 2.6)	0.8358	0.3 (-2.0, 2.7)	0.7762
Non-Hispanic Other	54.7	56.2	1.5 (-0.3, 3.3)	52.0	53.6	1.5 (-1.5, 4.6)	-0.1 (-3.6, 3.5)	0.9772	0.6 (-2.9, 4.1)	0.7275
Zip-code level median household income ^d										
High (>400 FPL)	59.7	60.8	1.1 (-0.5, 2.6)	59.7	58.8	-1.0 (-3.6, 1.7)	2.0 (-1.0, 5.1)	0.1933	1.8 (-1.2, 4.8)	0.2485
Middle (139-400 FPL)	54.3	55.9	1.6 (1.1, 2.2)	52.5	52.7	0.2 (-0.5, 0.9)	1.4 (0.5, 2.4)	0.0019	1.5 (0.6, 2.4)	0.0011
Low (≤138 FPL)	46.2	49.7	3.5 (1.4, 5.6)	40.8	44.8	4.1 (1.8, 6.3)	-0.5 (-3.6, 2.5)	0.7267	-0.4 (-3.4, 2.6)	0.8054
Residence MSA status ^d										
Metropolitan	54.4	56.2	1.7 (1.2, 2.3)	52.1	52.7	0.6 (-0.2, 1.3)	1.2 (0.3, 2.1)	0.0104	1.2 (0.3, 2.1)	0.0095
Non-MSA urban	53.7	55.4	1.7 (0.1, 3.3)	50.5	51.7	1.3 (-0.5, 3.1)	0.4 (-2.0, 2.9)	0.7295	0.6 (-1.8, 3.0)	0.6433
Non-MSA rural	48.7	54.9	6.2 (0.8, 11.7)	50.9	49.8	-1.2 (-6.1, 3.8)	7.4 (0.1, 14.7)	0.0478	8.1 (0.9, 15.3)	0.0273

^aAuthors' analysis of the 2011-2016 National Cancer Database. Abbreviation: DD—difference in difference; ME—Medicaid expansion; ppt—percentage points; FPL—federal poverty level; MSA—metropolitan statistical area.

^bCases without applicable stages (e.g. leukemia, brain tumor) were excluded. Testicular cancer cases were excluded due to high percentage of unknown stage observed exclusively among patients with testicular cancer.

^cAdjusted model: Regression models also adjusted for linear time trends, age, sex, race/ethnicity, zip-code level income, and residence metropolitan statistical area status, when applicable, as well as state adjusted as a random effect.

^dData for unknown categories not shown.

^e*P* values were calculated from linear probability regression models and reflect two-sided test of statistical significance.

Supplementary Table 6: Changes in the percentage of stage IV disease at diagnosis associated with Medicaid expansion among newly diagnosed young adult cancer patients aged 18-39 years, 2011-2016, excluding unknown stage^{a,b}

Cancer site	Expansion states			Non-expansion states			Crude model		Adjusted model ^c	
	Pre-ME, %	Post-ME, %	Absolute Difference (95% CI), ppt	Pre-ME, %	Post-ME, %	Absolute Difference (95% CI), ppt	DD (95% CI), ppt	<i>P</i> ^d	DD (95% CI), ppt	<i>P</i> ^d
All cancer types combined	11.9	12.0	0.0 (-0.3, 0.4)	12.6	13.1	0.4 (-0.03, 0.9)	-0.4 (-0.9, 0.2)	0.1841	-0.5 (-1.0, 0.1)	0.0974
Thyroid	0.4	0.4	0.0 (-0.1, 0.1)	0.4	0.4	0.0 (-0.2, 0.2)	0.0 (-0.2, 0.3)	0.7618	0.0 (-0.2, 0.3)	0.7818
Female breast	6.0	6.2	0.2 (-0.3, 0.8)	5.9	6.7	0.8 (0.1, 1.5)	-0.6 (-1.5, 0.3)	0.2164	-0.5 (-1.4, 0.4)	0.2479
Melanoma	3.1	3.4	0.2 (-0.4, 0.9)	3.2	4.6	1.4 (0.5, 2.3)	-1.2 (-2.3, -0.1)	0.0355	-1.3 (-2.4, -0.2)	0.0164
Colon & rectum	27.4	27.8	0.4 (-1.5, 2.3)	28.4	28.6	0.2 (-2.2, 2.5)	0.2 (-2.7, 3.2)	0.8727	0.4 (-2.6, 3.4)	0.7934
Non-Hodgkin lymphoma	32.9	34.0	1.1 (-0.8, 3.1)	34.6	35.5	0.9 (-1.7, 3.5)	0.3 (-3.0, 3.5)	0.8690	0.4 (-2.9, 3.6)	0.8179
Cervix	7.2	7.0	-0.2 (-1.3, 0.9)	6.5	8.0	1.4 (0.1, 2.8)	-1.6 (-3.4, 0.1)	0.0634	-1.7 (-3.4, 0.1)	0.0612
Hodgkin lymphoma	18.5	20.8	2.3 (0.6, 3.9)	19.2	20.5	1.3 (-0.9, 3.5)	1.0 (-1.8, 3.7)	0.4905	1.1 (-1.6, 3.9)	0.4137
Other	21.4	20.6	-0.9 (-1.7, -0.004)	21.1	20.9	-0.2 (-1.3, 0.8)	-0.6 (-2.0, 0.7)	0.3479	-1.0 (-2.3, 0.3)	0.1474

^aAuthors' analysis of the 2011-2016 National Cancer Database. Abbreviation: DD—difference in difference; ME—Medicaid expansion; ppt—percentage points.

^bCases without applicable stages (e.g. leukemia, brain tumor) were excluded. Testicular cancer cases were excluded due to high percentage of unknown stage observed exclusively among patients with testicular cancer.

^cAdjusted model: Regression models also adjusted for age, sex, race/ethnicity, zip-code level income, residence metropolitan statistical area status, and linear time trends, as well as state adjusted as a random effect.

^d*P* values were calculated from linear probability regression models and reflect two-sided test of statistical significance.

Supplementary Table 7: Changes in in the percentage of stage IV disease at diagnosis associated with Medicaid expansion by sociodemographic factors among newly diagnosed cancer patients aged 18-39 years, 2011-2016, excluding unknown stage^{a,b}

Characteristics	Expansion states			Non-expansion states			Crude model		Adjusted model ^c	
	Pre-ME, %	Post-ME, %	Absolute Difference (95% CI), ppt	Pre-ME, %	Post-ME, %	Absolute Difference (95% CI), ppt	DD (95% CI), ppt	<i>P</i> ^e	DD (95% CI), ppt	<i>P</i> ^e
Age group										
18-25 years	13.3	13.3	0.1 (-0.8, 1.0)	13.9	13.8	-0.1 (-1.4, 1.1)	0.2 (-1.3, 1.7)	0.8058	0.1 (-1.4, 1.6)	0.8931
26-34 years	11.4	11.1	-0.3 (-0.7, 0.2)	12.0	12.5	0.5 (-0.2, 1.1)	-0.7 (-1.5, 0.1)	0.0918	-1.0 (-1.8, -0.2)	0.0148
35-39 years	12.1	12.4	0.3 (-0.2, 0.9)	12.8	13.4	0.6 (-0.1, 1.2)	-0.2 (-1.1, 0.6)	0.6195	-0.1 (-0.9, 0.7)	0.8007
Race/ethnicity ^d										
Non-Hispanic White	10.5	10.5	0.0 (-0.4, 0.3)	10.8	11.2	0.5 (-0.04, 1.0)	-0.5 (-1.2, 0.1)	0.1131	-0.5 (-1.2, 0.1)	0.0899
Non-Hispanic Black	18.4	19.2	0.8 (-0.5, 2.1)	18.0	19.1	1.1 (-0.2, 2.4)	-0.3 (-2.1, 1.5)	0.7485	-0.2 (-2.0, 1.6)	0.8119
Hispanic	14.9	14.5	-0.4 (-1.5, 0.6)	15.3	15.3	0.0 (-1.3, 1.3)	-0.4 (-2.1, 1.3)	0.6175	-0.6 (-2.3, 1.1)	0.4790
Non-Hispanic Other	12.3	12.7	0.4 (-0.8, 1.6)	13.4	12.7	-0.7 (-2.8, 1.4)	1.1 (-1.3, 3.5)	0.3574	0.6 (-1.7, 2.9)	0.6059
Zip-code level median household income ^d										
High (>400 FPL)	8.8	9.6	0.9 (-0.03, 1.8)	9.0	9.0	0.0 (-1.6, 1.5)	0.9 (-0.9, 2.7)	0.3117	0.9 (-0.9, 2.7)	0.3083
Middle (139-400 FPL)	12.0	12.0	0.0 (-0.3, 0.4)	12.2	12.8	0.6 (0.1, 1.0)	-0.5 (-1.1, 0.1)	0.0900	-0.6 (-1.2, -0.05)	0.0349
Low (≤138 FPL)	16.4	15.9	-0.5 (-2.0, 1.0)	18.8	18.4	-0.4 (-2.2, 1.3)	-0.1 (-2.4, 2.3)	0.9555	-0.2 (-2.5, 2.1)	0.8707
Residence MSA status ^d										
Metropolitan	11.9	12.0	0.2 (-0.2, 0.5)	12.4	13.0	0.5 (0.05, 1.0)	-0.4 (-1.0, 0.2)	0.2471	-0.4 (-1.0, 0.2)	0.1583
Non-MSA urban	12.1	11.6	-0.6 (-1.6, 0.5)	13.8	13.4	-0.3 (-1.6, 0.9)	-0.2 (-1.9, 1.4)	0.7835	-0.3 (-1.9, 1.3)	0.7218
Non-MSA rural	14.9	12.4	-2.5 (-6.2, 1.3)	14.5	14.2	-0.3 (-3.8, 3.1)	-2.1 (-7.2, 2.9)	0.4111	-2.9 (-7.9, 2.1)	0.2578

^aAuthors' analysis of the 2011-2016 National Cancer Database. Abbreviation: DD—difference in difference; ME—Medicaid expansion; ppt—percentage points; FPL—federal poverty level; MSA—metropolitan statistical area.

^bCases without applicable stages (e.g. leukemia, brain tumor) were excluded. Testicular cancer cases were excluded due to high percentage of unknown stage observed exclusively among patients with testicular cancer.

^cAdjusted model: Regression models also adjusted for linear time trends, age, sex, race/ethnicity, zip-code level income, and residence metropolitan statistical area status, when applicable, as well as state adjusted as a random effect.

^dData for unknown categories not shown.

^e*P* values were calculated from linear probability regression models and reflect two-sided test of statistical significance.