Supplemental Materials

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Supplemental Table 1: Health People 2030 Goals for Included Measures

Topic	Measure	Desired Direction	2030 Goal
Usual Care	Proportion of adults 18+ who report having a regular care provider	Increase	84.0%
Dental Visit	Proportion with any oral health care in the past year	Increase	45.0%
Seasonal Flu Vaccine	Proportion reporting a seasonal fu vaccine in the past year	Increase	70.0%
Colorectal Cancer	Proportion of adults aged 45 to 75 who received a colorectal cancer screening based on most recent guidelines[1]	Increase	68.3%
Cervical Cancer	Proportion of women 21 to 65 who received a cervical cancer screening based on most recent guidelines	Increase	79.2%
Breast Cancer	Proportion of women 50 to 74 who received a breast cancer screening based on most recent guidelines	Increase	80.3%
Cost	Percentage of adults 18+ who were delayed in receiving medical care due to cost	Decrease	8.5%
Smoking	Percentage of adults 18+ who smoke all days or some days	Decrease	17.4%
Binge Drinking	Percentage of adults 21+ who engaged in binge drinking in the past month	Decrease	25.4%

Measurement definitions and Healthy People 2030 targets that align with included measures of care access; our analysis includes those 18 to 64 for all measures except cancer screening, which restrict to those age-appropriate for screening and under 64 years of age (https://health.gov/healthypeople)

[1]In most included years of data, colorectal cancer screening is only recommended to those 50-74 (our analysis includes those 50 to 64); we examine 45 to 64 as a sensitivity analysis in 2022.

[2] Lung cancer screening was only measured in 2022; we examine the most updated USPSTF inclusion criteria which include those 50 and a 20-pack year smoking history.

Supplemental Table 2: Sociodemographic Characteristics of the North Carolina Population

Categories	2016	2018	2020	2022	P value
Total	**4563**	**3260**	**3951**	**3231**	
Estimated Pop	**6,204,879**	**6,309,762**	**6,278,667**	**6,318,595**	
Age					
18 to 24	15.9% (466)	16.1% (376)	15.5% (391)	18.3% (422)	
25 to 34	21.0% (859)	21.0% (621)	21.4% (757)	21.5% (658)	
35 to 44	20.6% (886)	20.3% (627)	20.6% (789)	20.0% (658)	
45 to 54	21.7% (1075)	21.5% (804)	20.9% (981)	18.9% (705)	
55 to 64	20.8% (1277)	21.2% (832)	21.6% (1033)	21.2% (788)	<.001
Sex					
Male	49.1% (2158)	48.7% (1551)	49.4% (1864)	48.6% (1549)	
Female	50.9% (2404)	51.2% (1703)	50.6% (2087)	51.4% (1682)	
Missing	0 (-)	0.1% (6)	0 (-)	0 (-)	0.007
Hispanic Ethnicity					
Hispanic	9.2% (438)	9.6% (353)	10.2% (495)	11.5% (418)	
Non-Hispanic	90.3% (4101)	89.7% (2886)	89.3% (3434)	87.9% (2794)	
Missing	0.5% (24)	0.7% (21)	0.5% (22)	0.6% (19)	<.001
Race					
White Only	66.5% (3012)	64.2% (2116)	63.3% (2517)	61.8% (2056)	
Black/ African American Only	22.1% (990)	22.6% (683)	22.3% (771)	21.6% (612)	
American Indian/Alaskan Native Only	1.6% (104)	2.0% (82)	1.5% (128)	1.3% (136)	
Asian Only	3.2% (87)	1.9% (50)	3.4% (81)	3.5% (78)	
Native Hawaiian/Pacific Islander	0.2% (11)	0.2% (6)	0.2% (9)	1% (22)	
Other/Multirace/Missing	6.4% (359)	9.2% (323)	9.4% (445)	10.8% (327)	<.001

Categories	2016	2018	2020	2022	P value
Marital Status					
Married/Long-term Partnered	54.3% (2470)	54.5% (1694)	54.5% (2229)	54.9% (1815)	
Divorce/Widowed/Separated	16.6% (931)	16.4% (698)	16.3% (743)	15.0% (557)	
Never Married	28.7% (1142)	28.6% (856)	28.7% (954)	29.3% (830)	
Missing	0.4% (20)	0.4% (12)	0.6% (25)	0.9% (29)	<.001
Education					
Less than High School	13.7% (473)	12.0% (339)	11.5% (354)	11.2% (272)	
High School/GED	26.2% (1207)	25.9% (802)	26.4% (994)	26.2% (708)	
Some College	33.5% (1344)	33.3% (922)	32.8% (1087)	33.1% (931)	
College+	26.4% (1530)	28.7% (1193)	29.0% (1503)	29.2% (1308)	
Missing	0.2% (9)	0.1% (4)	0.3% (13)	0.3% (12)	<.001
Employment					
Employed	66.6% (3046)	69.3% (2215)	68.1% (2721)	69.8% (2338)	
Out of Work	5.7% (252)	4.7% (150)	8.5% (316)	5.6% (161)	
Homemaker	5.2% (214)	5.2% (159)	5.1% (199)	5.5% (152)	
Student	7.8% (249)	6.7% (166)	5.8% (142)	4.6% (105)	
Retired	4.7% (289)	5.2% (209)	4.3% (225)	5.6% (202)	
Unable to Work	9.6% (493)	8.2% (334)	7.3% (318)	8.1% (248)	
Missing	0.4% (20)	0.7% (27)	0.9% (30)	0.9% (25)	<.001
Children					
No Children	60.6% (2919)	60.2% (2059)	56.2% (2307)	59.6% (1949)	
One Child	16.3% (688)	17.0% (516)	19.8% (720)	16.7% (524)	
Two Children	14.6% (595)	14.5% (439)	15.0% (569)	14.8% (475)	
Three or More Children	8.5% (361)	8.2% (246)	8.9% (355)	8.9% (283)	<.001
Health Status					
Poor/Fair/Good	47.3% (2233)	48.4% (1598)	40.3% (1608)	45.1% (1451)	
Excellent/Very Good	52.5% (2318)	51.3% (1652)	59.5% (2336)	54.5% (1765)	
Missing	0.3% (12)	0.3% (10)	0.2% (7)	0.4% (15)	<.001

Categories	2016	2018	2020	2022	P value
Chronic Conditions					
Zero	53.1% (2261)	50.4% (1590)	51.9% (1988)	50.4% (1528)	
One	25.4% (1162)	26.7% (834)	27.1% (1051)	26.1% (887)	
Two or More	19.4% (1038)	21.0% (758)	18.8% (821)	20.6% (724)	
Missing	2.1% (102)	1.9% (78)	2.3% (91)	3.0% (92)	0.06
Functional Disability					
Yes	21.5% (1097)	24.3% (841)	21.9% (887)	28.1% (863)	
No	76.4% (3378)	73.6% (2360)	75.7% (2980)	70.0% (2314)	
Missing	2.1% (88)	2.2% (59)	2.4% (84)	1.9% (54)	0.001
Income					
<99%	15.3% (684)	12.2% (414)	13.4% (532)	11.9% (384)	
100-138%FPL	7.5% (344)	8.5% (303)	10.2% (407)	6.8% (206)	
139-199%FPL	12.5% (598)	9.2% (325)	8.8% (345)	8.3% (238)	
200+FPL	47.6% (2208)	51.8% (1647)	48.2% (1944)	48.9% (1711)	
Missing	17.1% (729)	18.4% (571)	19.4% (723)	24.1% (692)	<.001
Insurance					
Uninsured	17.4% (764)	18.2% (611)	18.6% (736)	12.2% (401)	
Medicaid	4.8% (233)	5.0% (163)	5.1% (178)	7.3% (194)	
Other	77.3% (3551)	76.4% (2478)	75.8% (3023)	78.1% (2572)	
Missing	0.5% (15)	0.4% (8)	0.5% (14)	2.5% (64)	<.001
CC Screen Eligible					
Yes	45.3% (2227)	46.4% (1589)	46.1% (1950)	45.1% (1556)	
BC Screening Eligible					
Yes	16.6% (983)	16.1% (650)	16.9% (853)	16.3% (615)	
CRC Screening Eligible					
Yes	29.8% (1701)	29.6% (1141)	30.5% (1445)	37.8% (1424)	

Supplemental Table 3: Sociodemographic Characteristics of the Traditional Medicaid Population, 2016-2022

Categories	2016	2018	2020	2022	P value
Total	**233**	**163**	**178**	**194**	
Estimated Pop	**299,424**	**317,920**	**318,002**	**459,814**	
Age					
18 to 24	22.5% (30)	25.2% (23)	24.9% (27)	26.5% (36)	
25 to 34	23.6% (50)	24.9% (34)	34.2% (53)	29.1% (49)	
35 to 44	19.4% (47)	15.9% (28)	12.5% (29)	20.3% (44)	
45 to 54	18.3% (50)	18.9% (41)	12.2% (30)	10.5% (32)	
55 to 64	16.1% (56)	15% (37)	16.2% (39)	13.5% (33)	0.2
Sex					
Male	28.1% (65)	29.5% (46)	26.1% (39)	27.2% (55)	
Female	71.9% (168)	70.5% (117)	73.9% (139)	72.8% (139)	
Missing	0 (-)	0 (-)	0 (-)	0 (-)	0.44
Hispanic Ethnicity					
Hispanic	4.6% (11)	1.9% (4)	6.5% (16)	11.6% (20)	
Non-Hispanic	95.3% (221)	96.8% (157)	93.5% (162)	88.4% (174)	
Missing	0.1% (1)	1.4% (2)	0 (-)	0 (-)	0.01
Race					
White Only	48.5% (109)	47.3% (80)	45.5% (80)	42.8% (86)	
Black/ African American Only	40.5% (92)	38.6% (58)	47.8% (74)	34.2% (66)	
American Indian/Alaskan Native Only	4.9% (16)	4.2% (11)	3% (12)	2.9% (19)	
Asian Only	0 (-)	0.7% (1)	0.1% (1)	0 (-)	
Native Hawaiian/Pacific Islander	0.1% (1)	0 (-)	0 (-)	1.5% (1)	
Other/Multirace/Missing	6% (15)	9.2% (13)	3.6% (11)	18.6% (22)	0.65
Marital Status					

Categories	2016	2018	2020	2022	P value
Married/Long-term Partnered	28.2% (55)	24.8% (36)	19.6% (40)	29.7% (52)	
Divorce/Widowed/Separated	28.5% (85)	30.0% (61)	27.6% (62)	22.2% (58)	
Never Married	43.3% (93)	45.0% (65)	52.8% (76)	48.0% (83)	
Missing	0 (-)	0.2% (1)	0 (-)	0 (-)	0.78
Education					
Less than High School	28% (61)	24.0% (33)	23.8% (29)	25.1% (36)	
High School/GED	38% (89)	42.5% (67)	43.4% (82)	42.0% (81)	
Some College	30.3% (69)	27.5% (45)	29.4% (55)	26.3% (54)	
College+	3.7% (14)	6.0% (18)	3.3% (11)	6.6% (23)	
Missing	0 (-)	0 (-)	0.2% (1)	0 (-)	0.14
Employment					
Employed	30.9% (63)	34.6% (47)	29.9% (55)	39.3% (83)	
Out of Work	13.1% (27)	7.8% (13)	21.6% (33)	14.6% (25)	
Homemaker	3.1% (10)	10.7% (15)	10% (16)	12.3% (18)	
Student	10.2% (15)	8.5% (10)	8.2% (8)	8.2% (10)	
Retired	2.5% (6)	2.6% (3)	1.6% (5)	1.3% (4)	
Unable to Work	40.1% (112)	34.3% (74)	28.8% (61)	24.3% (53)	
Missing	0 (-)	1.5% (1)	0 (-)	0 (-)	0.002
Children					
No Children	47.4% (124)	51.5% (95)	34.5% (65)	42.8% (72)	
One Child	24.3% (48)	17.2% (24)	23.1% (45)	23.5% (51)	
Two Children	15.5% (30)	16.3% (25)	20.3% (34)	15.6% (37)	
Three or More Children	12.8% (31)	15% (19)	22.1% (34)	18.1% (34)	<.001
Health Status					
Poor/Fair/Good	65.3% (164)	74.8% (131)	59.4% (119)	56.2% (123)	
Excellent/Very Good	33.6% (67)	24.6% (31)	40.6% (59)	43.1% (69)	
Missing	1.1% (2)	0.6% (1)	0 (-)	0.7% (2)	0.02
Chronic Conditions					

Categories	2016	2018	2020	2022	P value
Zero	25.3% (51)	25.3% (35)	33.3% (51)	34.2% (62)	
One	22.6% (45)	31.3% (41)	27.9% (40)	30.2% (53)	
Two or More	48.2% (125)	40.6% (80)	34.1% (74)	30.9% (68)	
Missing	3.9% (12)	2.8% (7)	4.7% (13)	4.6% (11)	0.02
Functional Disability					
Yes	54.9% (140)	53.0% (96)	44.5% (89)	45.2% (87)	
No	45.1% (93)	47.0% (67)	55.5% (89)	53.2% (105)	
Missing	0 (-)	0 (-)	0 (-)	1.6% (2)	0.006
CC Screen Eligible					
Yes	63.7% (157)	63.8% (112)	66.2% (129)	61.4% (130)	
BC Screening Eligible					
Yes	16.4% (54)	14.6% (41)	14.0% (38)	9.2% (23)	
CRC Screening Eligible					
Yes	26.3% (83)	23.6% (58)	20.7% (57)	22.6% (61)	

Data from the Behavioral Risk Factor Surveillance Survey 2016, 2018, 2020, and 2022

CC – Cervical Cancer; BC- Breast Cancer; CRC- Colorectal Cancer

Supplemental Table 4: Health Care Access by Year and Group

Group	2016	2018	2020	2022
Checkup in Past Year				
Medicaid Expansion	46.1% [39.9%-52.4%]	53.5% [46.2%-60.7%]	44.9% [38.0%-52.0%]	40.2% [31.1%-50%]
Traditional Medicaid	73.8% [65.3%-80.8%]	81.6% [72.5%-88.2%]	82.7% [75.2%-88.3%]	75.8% [66.6%-83.1%]
All NC (18-64)	69.7% [68.0%-71.3%]	75.3% [73.4%-77.0%]	74.8% [73.1%-76.4%]	71.6% [69.5%-73.7%]
A Regular Source of Care				
Medicaid Expansion	37.0% [31.1%-43.4%]	33.3% [26.7%-40.6%]	35.4% [29%-42.4%]	36.7% [27.7%-46.8%]
Traditional Medicaid	82.5% [75.2%-88.0%]	87.6% [79.2%-92.9%]	76.0% [66.9%-83.1%]	73.0% [62.4%-81.5%]
All NC (18-64)	74.2% [72.6%-75.7%]	73.0% [71.1%-74.8%]	72.2% [70.5%-74.0%]	77.8% [75.9%-79.7%]
Delayed Care due to Cost				
Medicaid Expansion	53.7% [47.4%-60.0%]	52.9% [45.5%-60.1%]	44.4% [37.3%-51.7%]	45.7% [36.6%-55.2%]
Traditional Medicaid	21.4% [15.3%-29.0%]	25.4% [17.6%-35.1%]	14.4% [9.6%-21.1%]	19.5% [12.6%-29.0%]
All NC (18-64)	18.7% [17.4%-20.2%]	17.3% [15.8%-19.0%]	13.3% [12.1%-14.7%]	14.1% [12.5%-15.7%]
Any Dental Care in Past Year				
Medicaid Expansion	30.0% [24.8%-35.8%]	36.2% [29.3%-43.7%]	34.2% [27.9%-41.2%]	27.5% [19.3%-37.5%]
Traditional Medicaid	55.6% [47.7%-63.3%]	48.5% [39.1%-58.0%]	55.6% [46.0%-64.9%]	57.5% [47.6%-66.8%]
All NC (18-64)	63.3% [61.5%-65.0%]	65.5% [63.4%-67.5%]	64.9% [63.0%-66.7%]	62.5% [60.3%-64.7%]
Flu Shot in Past Year				
Medicaid Expansion	22.6% [17.9%-28.1%]	24.3% [18.3%-31.5%]	17.1% [12.8%-22.5%]	27.9% [19.2%-38.6%]
Traditional Medicaid	35.7% [28.4%-43.6%]	26.3% [19.2%-34.9%]	31.0% [22.8%-40.4%]	28.4% [20.2%-38.3%]
All NC (18-64)	38.8% [37.1%-40.6%]	35.1% [33.1%-37.2%]	42.7% [40.8%-44.6%]	38.7% [36.5%-40.9%]

Data from the Behavioral Risk Factor Surveillance Survey 2016, 2018, 2020, and 2022.