Financial Analysis Task of the Impact of Potential COPN Deregulation In Virginia

PRESENTED AND PREPARED BY:
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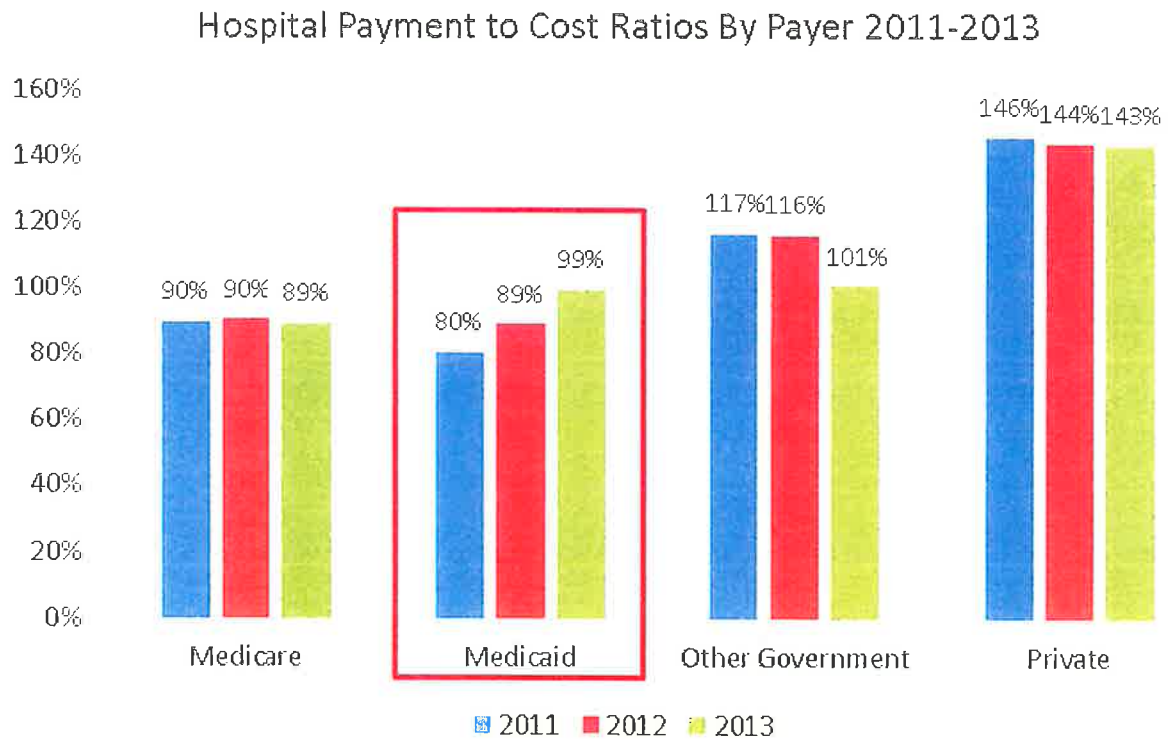
Overview of the Financial Analysis Task

- **Use 2011 – 2013 VHI data to provide a current perspective of hospital financial performance in Virginia (prior to effects of the ACA)**
- **Project revenues, costs and margins by payer prior to effects of the ACA**
- **Model the ACA impacts on Virginia hospitals**
  - Coverage expansion – Marketplace and Medicaid woodwork
  - ACA and other Medicare payment reductions
  - Medicaid DSH cuts
- **Modeling impact of potential Medicaid expansion in Virginia**

Medicaid Payment to Cost Ratios Appear to be Inappropriately High in 2013, So We Used 2011 as the Base Year for Projections



Source: Dobson | DaVanzo analysis of data from Virginia Health Information – Hospital Detail Reports

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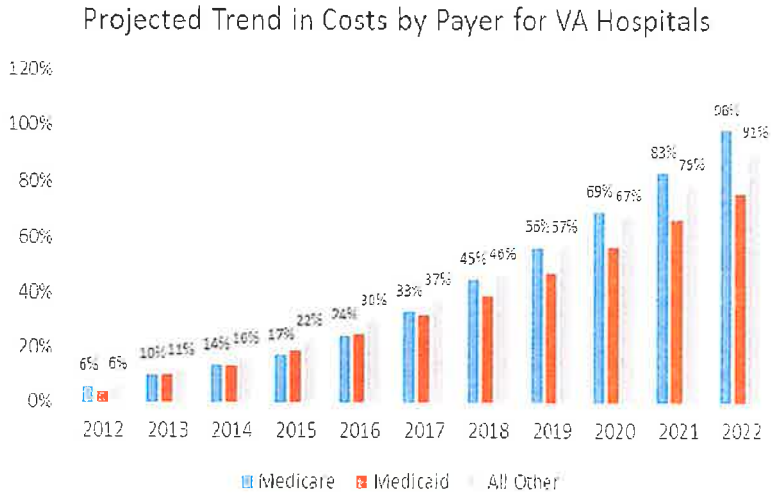
Baseline Projections of Payments and Costs by Payer 2011 – 2013 Without ACA Impacts

- We used 2011 VHI data as the base year for projections of payments and costs
- Costs are inflated using the CMS Office of the Actuary's National Health Spending projections for hospital services by payer from 2011 to 2022 and adjusted for historical difference between VA and US
- We assume same payment to cost ratios by payer from 2011 - 2022
- We assume uncompensated care costs increase as a percent of total operating costs based on observed historical trends by ½ of historical 2.8% increase (1.4% per year)
- Medicaid DSH payments for 2014 and 2015 from DMA were used as uncompensated care revenues, deflated to 2011 and inflated to 2022 by CPI
  - Medicaid base revenues were adjusted for differences between VHI and DMA reported DSH payments

2011 VHI Data for All Hospitals

Payer	Costs	Revenues	Payment to Cost Ratio
Medicare	$5,793,623,372	$5,196,569,905	89.7%
Medicaid	$1,705,117,851	$1,320,420,912	77.4%
Other Govt.	$416,714,498	$485,668,735	116.5%
Private	$5,769,399,369	$8,401,152,757	145.6%
Uncompensated Care	$1,071,847,862	$163,065,122	15.2%
Other Operating	$165,545,155	$496,847,167	
Total Operating	$14,922,248,107	$16,063,724,598	
Net Income		$1,141,476,491	
Operating Margin		6.6%	



Source: Dobson | DaVanzo analysis of data from Virginia Health Information – Hospital Detail Reports

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Calculation of Payment to Cost Ratios and Percent of Hospital Costs Using VHI Data

- **Ratio of Cost to Charges (RCC)**
  - (Total Operating Expenses – Bad Debt) / (Gross Revenue + Other Operating Revenue)
- **Costs by Payer**
  - Medicare: Medicare Inpatient & Outpatient Gross Revenue * RCC
  - Medicaid: Medicaid Inpatient & Outpatient Gross Revenue * RCC
  - Other Govt.: Other Govt. Inpatient & Outpatient Gross Revenue * RCC
  - Private: (Commercial and Other Payer Inpatient & Outpatient Gross Revenue – Bad Debt – Charity Care) * RCC
  - Uncompensated Care: (Bad Debt + Charity Care) * RCC
  - Other Operating: Other Operating Revenue * RCC
- **Revenues by Payer**
  - Medicare: Medicare Inpatient & Outpatient Gross Revenue – Medicare Contractual Allowances
  - Medicaid: Medicaid Inpatient & Outpatient Gross Revenue – Medicaid Contractual Allowances
  - Other Govt.: Other Govt. Inpatient & Outpatient Gross Revenue – Other Govt. Contractual Allowances
  - Private: (Commercial and Other Payer Inpatient & Outpatient Gross Revenue – Commercial and Other Payer Contractual Allowance - Bad Debt – Charity Care
  - Uncompensated Care: DSH Payment (under contractual allowances)
  - Other Operating: Other Operating Revenue
- **Payment to Cost Ratios: Revenues by Payer / Costs by Payer**
- **Percent of Hospital Costs: Costs by Payer / (Total Operating Expenses – Bad Debt)**

Projected Revenues and Costs for Virginia Hospitals

Projected Revenues and Costs for Virginia Hospitals 2013 – 2022 Before ACA Impacts and Medicare/Medicaid Cuts

Declining margins are driven by high Medicare population growth relative to under 65 population and uncompensated care costs that are increasing faster than DSH revenue offsets

	2011 Base Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2014-2022
Costs											
Medicare	5,793,623,372	6,593,124,792	6,787,552,662	7,202,424,522	7,706,739,340	8,402,805,722	9,057,622,285	9,808,058,201	10,609,942,464	11,472,376,679	77,640,646,666
Medicaid	1,705,117,851	1,931,206,015	2,029,697,522	2,133,510,742	2,249,381,098	2,363,484,138	2,506,193,651	2,673,475,475	2,829,576,254	2,994,610,500	21,711,135,396
Other Govt.	416,714,498	481,947,191	510,382,075	540,569,714	572,856,480	610,008,830	652,545,084	697,083,520	744,087,397	793,929,990	5,603,410,281
Private	5,769,399,369	6,672,543,981	7,066,224,076	7,484,171,011	7,931,180,289	8,445,553,430	9,034,466,550	9,651,099,828	10,301,867,055	10,991,936,209	77,579,042,430
Uncompensated Care	1,071,847,862	1,316,071,974	1,395,572,510	1,498,568,960	1,615,717,628	1,759,010,249	1,912,169,523	2,082,857,598	2,265,065,527	2,462,417,175	16,307,451,143
Other Operating	165,545,155	191,459,675	202,755,796	214,748,221	227,574,551	242,333,796	259,231,866	276,925,329	295,598,219	315,398,825	2,226,026,279
Total Operating	14,922,248,107	17,186,353,628	17,992,184,640	19,073,993,170	20,303,449,386	21,823,196,166	23,422,228,959	25,189,499,951	27,046,136,917	29,030,669,378	201,067,712,195
Revenues											
Medicare	5,196,569,905	5,913,679,864	6,088,071,251	6,460,189,093	6,912,532,477	7,536,866,746	8,124,202,137	8,797,302,966	9,516,550,208	10,290,107,513	69,639,502,256
Medicaid	1,320,420,912	1,495,500,623	1,571,771,155	1,652,162,752	1,741,891,237	1,830,251,136	1,940,763,511	2,070,304,363	2,191,186,760	2,318,987,117	16,812,818,655
Other Govt.	485,668,735	561,695,557	594,835,595	630,018,419	667,647,714	710,947,707	760,522,484	812,430,748	867,212,412	925,302,516	6,530,613,152
Private	8,401,152,757	9,716,273,337	10,289,533,464	10,898,129,926	11,549,045,731	12,298,053,912	13,155,604,025	14,053,519,048	15,001,138,467	16,005,987,673	112,967,285,584
Medicaid DSH	163,065,122	174,394,410	179,131,497	182,534,995	186,550,765	191,027,984	195,994,711	201,286,568	206,721,306	212,302,781	1,729,945,018
Other Operating	496,847,167	574,623,867	608,526,675	644,519,286	683,014,679	727,311,290	778,027,109	831,130,123	887,172,673	946,599,813	6,680,925,515
Total	16,063,724,598	18,436,167,658	19,331,869,638	20,467,554,472	21,740,682,603	23,294,458,774	24,955,113,977	26,765,973,816	28,669,981,826	30,699,287,414	214,361,090,179
Net Income	1,141,476,491	1,249,814,031	1,339,684,998	1,393,561,301	1,437,233,217	1,471,262,608	1,532,885,018	1,576,473,865	1,623,844,910	1,668,618,036	13,293,377,984
Operating Margin	6.6%	6.3%	6.4%	6.3%	6.1%	5.8%	5.7%	5.4%	5.2%	5.0%	5.7%

Source: Dobson | DaVanzo analysis of data from Virginia Health Information – Hospital Detail Reports

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Modeling the Impact of the ACA on Hospital Finances in Virginia

- **Market Place enrollment was about 216,000 in 2014 and anticipated to grow through 2018**
- **Medicaid enrollment growth due to "Woodwork" effect**
- **Medicare cuts due to the ACA**
  - Productivity and Market basket reductions
  - Medicare DSH cuts
  - Value-based purchasing
  - Readmission reduction program
- **Medicaid DSH cuts (delayed until 2017)**
- **Other Medicare Cuts in addition to the ACA**
  - *Sequestration*
  - *Coding adjustments*
  - *Bad Debt reductions*

Modeling the Impact of Marketplace Enrollment and Medicaid Woodwork Effect

- **Modeling assumes that hospital uncompensated care related to the uninsured is reduced in proportion to reduction in uninsured**

		Projected ACA Enrollment		Estimated Reduction in Uninsured 4/		
Year	Uninsured without ACA 1/	Market Place 2/	Medicaid-Woodwork 3/	Market Place	Medicaid-Woodwork	Percent Reduction in Uninsured
2012	995,000					
2013	1,000,970					
2014	1,006,976	216,356	45,172	121,159	35,234	16%
2015	1,013,018	262,511	78,416	147,006	61,164	21%
2016	1,019,096	318,511	80,721	178,366	62,962	24%
2017	1,025,210	386,458	83,093	216,417	64,813	27%
2018	1,031,362	468,900	85,535	262,584	66,717	32%
2019	1,037,550	471,713	88,049	264,160	68,678	32%
2020	1,043,775	474,544	90,637	265,744	70,697	32%
2021	1,050,038	477,391	93,300	267,339	72,774	32%
2022	1,056,338	480,255	96,042	268,943	74,913	33%

1/ Number of uninsured based in 2012 American Community Survey results for Virginia, inflated by the under 65 population growth estimates.
2/ Market place enrollment for Kaiser State Health Facts and for 2014, we assume increased participation to 468,900 by 2018 using Society Of Actuary's study of ACA enrollment impacts.
3/ Medicaid woodwork effect estimated by DMA.
4/ Assumes that 56% of Marketplace enrollees and 78% of Medicaid enrollees were previously uninsured using Society of Actuary's study of ACA enrollment impacts.

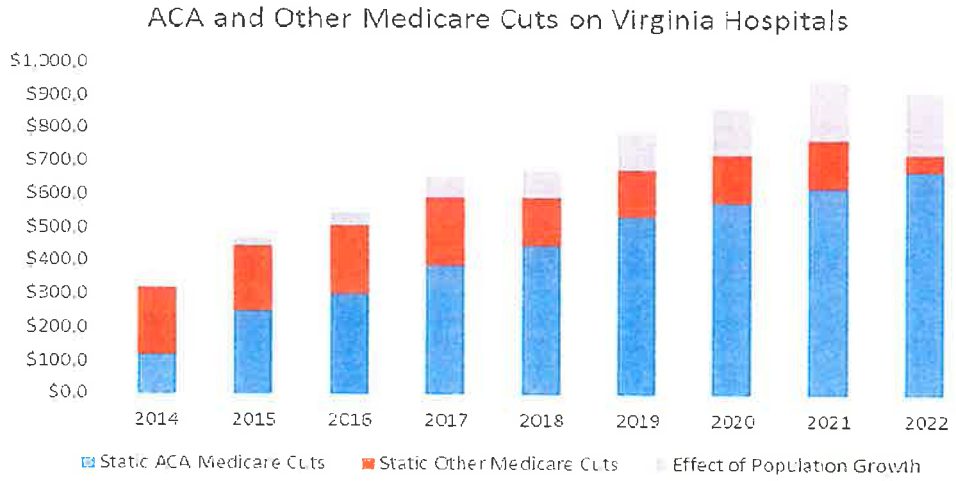
Modeling the Impact of Marketplace Enrollment and Medicaid Woodwork Effect

- **Modeling assumes that hospital uncompensated care related to the uninsured is reduced in proportion to reduction in uninsured**
  - Assume that 75% of uncompensated care (bad debt and charity care) is for uninsured patients [1]
- **Assume that newly insured will increased utilization of hospital services**
  - Assumes 70% net increase in use of hospital services
- **Assumes payments for previously uncompensated care and new utilization is paid at current payment to cost ratios**
  - Newly insured through Marketplace is paid at private rates (146% of cost)
  - Newly insured through Medicaid is paid at Medicaid rates (77% of cost)
- **Assumes that 22% of newly eligible Medicaid enrollees would have private coverage in the absence of the Medicaid expansion**
  - Model movement from private to Medicaid as lower payment rates

1/ Based on analysis provided by NH Hospital Association showing 68% of bad debt and 82% of charity care is provided to uninsured patients and validated by data from California OSHPD showing that 70% of bad debt were categorized in the self pay/other payer categories.

Modeling Impact of ACA and Other Medicare Cuts on Virginia Hospitals

- **Estimates of ACA and other Medicare cuts produced for Virginia hospitals by HANYS are produced using static models**
- **Because our projections of costs and revenues account for population growth, we further inflated HANYS estimates by the projection of the 65 and older population in Virginia**



	2014	2015	2016	2017	2018	2019	2020	2021	2022
Static ACA Medicare Cuts	$122.1	$250.8	$305.4	$388.7	$450.0	$534.9	$579.1	$624.6	$672.0
Static Other Medicare Cuts	$194.3	$196.9	$200.9	$204.3	$140.8	$138.1	$141.0	$144.0	$50.9
Effect of Population Growth	$8.4	$24.1	$41.5	$65.7	$82.9	$114.8	$145.3	$179.7	$192.7
Total Medicare Cuts	$324.8	$471.8	$547.7	$658.6	$673.7	$787.8	$865.4	$948.3	$915.6

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Modeling the Impact of Medicaid DSH Cuts for Virginia

- President's budget delay the ACA Medicaid DSH cuts until 2017
- We estimated the percent reduction in DSH allotments due to the ACA nationally based on the projected allotments and the schedule reductions
- Because the allocation of DSH cuts will be based in part on a state's uninsurance rate, state's that do not expand Medicaid will be less effected, therefore we assume 2/3 of the national percent impact for Virginia

Fiscal Year	Federal DSH Allotments (millions)	Planned Cuts (millions)	Percent Reduction Nationally	Assume 2/3 of Reduction for VA Due to not Expanding Medicaid		Estimated Virginia DSH Payments	Assumed DSH Cuts for Virginia Hospitals	Remaining DSH Payments
2014	$11,652	$0	0.0%	0.0%		$174.4	$0.0	$174.4
2015	$11,838	$0	0.0%	0.0%		$179.1	$0.0	$179.1
2016	$12,063	$0	0.0%	0.0%		$182.5	$0.0	$182.5
2017	$12,329	-$1,200	-9.7%	-6.4%		$186.6	$12.0	$174.6
2018	$12,625	-$1,800	-14.3%	-9.4%		$191.0	$18.0	$173.1
2019	$12,953	-$5,000	-38.6%	-25.5%		$196.0	$49.9	$146.1
2020	$13,303	-$5,600	-42.1%	-27.8%		$201.3	$55.9	$145.4
2021	$13,662	-$4,000	-29.3%	-19.3%		$206.7	$39.9	$166.8
2022	$14,031	-$4,000	-28.5%	-18.8%		$212.3	$39.9	$172.4

Modeling Impact of ACA on Virginia Hospitals 2014 – 2022

- Modeling shows reduction in uncompensated care of $3.5 billion 2014-2022
- Increased hospitals costs for treating newly insured of $2.45 billion
- Increased Medicaid and private insurance revenue of $6.3 and $1.26 billion respectively
- Increased revenues are offset by Medicare payment cuts of $6.2 billion and Medicaid DSH cuts of $215 million
- Overall impact of -$1.3 billion on net income to hospitals

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2014-2022	Difference from Baseline
Costs											
Medicare	6,593,124,792	6,787,552,662	7,202,424,522	7,706,739,340	8,402,805,722	9,057,622,285	9,808,058,201	10,609,942,464	11,472,376,679	77,640,646,666	0
Medicaid	2,003,951,113	2,162,928,276	2,279,682,078	2,410,294,786	2,542,194,036	2,704,605,353	2,894,070,469	3,074,475,691	3,266,408,359	23,338,610,161	1,627,474,765
Other Govt.	481,947,191	510,382,075	540,569,714	572,856,480	610,008,830	652,545,084	697,083,520	744,087,397	793,929,990	5,603,410,281	0
Private	6,860,407,960	7,298,642,433	7,790,460,218	8,335,363,444	8,982,922,693	9,618,151,045	10,286,501,685	10,992,393,081	11,742,124,907	81,906,967,467	4,327,925,037
Uncompensated Care	1,162,772,517	1,180,484,797	1,232,415,699	1,283,307,720	1,337,787,214	1,452,112,936	1,579,330,039	1,714,815,254	1,861,248,612	12,804,274,788	-3,503,176,354
Other Operating	191,459,675	202,755,796	214,748,221	227,574,551	242,333,796	259,231,866	276,925,329	295,598,219	315,398,825	2,226,026,279	0
Total Operating	17,293,663,247	18,142,746,039	19,260,300,452	20,536,136,321	22,118,052,291	23,744,268,570	25,541,969,242	27,431,312,107	29,451,487,373	203,519,935,643	2,452,223,448
Revenues											
Medicare	5,588,879,445	5,616,228,967	5,912,455,003	6,253,919,558	6,863,142,543	7,336,400,623	7,931,899,210	8,568,276,799	9,374,461,418	63,445,663,567	-6,193,838,689
Medicaid	1,551,833,474	1,674,943,305	1,765,355,918	1,866,500,687	1,968,641,738	2,094,410,933	2,241,130,235	2,380,833,674	2,529,463,816	18,073,113,780	1,260,295,125
Other Govt.	561,695,557	594,835,595	630,018,419	667,647,714	710,947,707	760,522,484	812,430,748	867,212,412	925,302,516	6,530,613,152	0
Private	9,989,832,834	10,627,971,141	11,344,135,178	12,137,599,964	13,080,548,063	14,005,540,438	14,978,764,072	16,006,652,951	17,098,380,390	119,269,425,032	6,302,139,448
Medicaid DSH	174,394,410	179,131,497	182,534,995	174,566,734	173,051,936	146,061,245	145,361,087	166,774,533	172,356,008	1,514,232,446	-215,712,572
Other Operating	574,623,867	608,526,675	644,519,286	683,014,679	727,311,290	778,027,109	831,130,123	887,172,673	946,599,813	6,680,925,515	0
Total	18,441,259,586	19,301,637,180	20,479,018,800	21,783,249,335	23,523,643,276	25,120,962,832	26,940,715,475	28,876,923,043	31,046,563,962	215,513,973,491	1,152,883,312
Net Income	1,147,596,339	1,158,891,141	1,218,718,348	1,247,113,014	1,405,590,986	1,376,694,262	1,398,746,232	1,445,610,935	1,595,076,590	11,994,037,848	-1,299,340,136
Operating Margin	5.8%	5.6%	5.6%	5.4%	5.6%	5.2%	4.9%	4.7%	4.8%	5.2%	-0.5%

Modeling Impact of Expanding Medicaid in Virginia

- **We assume that Medicaid expansion would begin 7/1/2015 for modeling purposes and enrollment projections based on State's estimates**
- **Assumes that hospital uncompensated care related to the uninsured is reduced in proportion to reduction in uninsured**
  - Assume that 75% of uncompensated care (bad debt and charity care) is for uninsured patients [1]
- **Assume that newly insured will increased utilization of hospital services**
  - Assumes 70% net increase in use of hospital services
- **Assumes payments for previously uncompensated care and new utilization is paid at current Medicaid payment to cost ratios (77%)**
- **Assumes that 22% of newly eligible Medicaid enrollees would have private coverage in the absence of the Medicaid expansion**
  - Model movement from private to Medicaid as lower payment rates

1/ Based on analysis provided by NH Hospital Association showing 68% of bad debt and 82% of charity care is provided to uninsured patients and validated by data from California OSHPD showing that 70% of bad debt were categorized in the self pay/other payer categories.

Modeling Impact of Expanding Medicaid in Virginia

- We assume that Medicaid expansion would begin 7/1/2015
- For modeling purposes and enrollment projections based on State's estimates
- We assume 78% of newly eligible Medicaid enrollees would have been uninsured and 22% would have private coverage in the absence of the Medicaid expansion

Year	Uninsured without ACA	Medicaid - Newly Elig (assume start 7/1/2015)	Estimated Reduction in Uninsured	Percent Reduction in Uninsured
2016	1,019,096	250,436	195,340	19%
2017	1,025,210	278,422	217,169	21%
2018	1,031,362	286,605	223,552	22%
2019	1,037,550	295,027	230,121	22%
2020	1,043,775	303,698	236,884	23%
2021	1,050,038	312,623	243,846	23%
2022	1,056,338	321,811	251,012	24%

Modeling Impact of Expanding Medicaid in Virginia

- **With Medicaid expansion, hospital uncompensated care could be reduced by $5.8 billion from 2014 – 2022**
- **Hospitals would receive additional Medicaid funding of $4.9 billion**
- **But have additional Medicaid DSH cuts of $326 million**

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2014-2022	Difference from Baseline
Costs											
Medicare	6,593,124,792	6,787,552,662	7,202,424,522	7,706,739,340	8,402,805,722	9,057,622,285	9,808,058,201	10,609,942,464	11,472,376,679	77,640,646,666	0
Medicaid	2,003,951,113	2,162,928,276	2,733,177,691	2,949,472,907	3,141,002,329	3,369,427,166	3,633,219,277	3,895,067,619	4,177,129,208	28,065,375,585	6,354,240,189
Other Govt.	481,947,191	510,382,075	540,569,714	572,856,480	610,008,830	652,545,084	697,083,520	744,087,397	793,929,990	5,603,410,281	0
Private	6,860,407,960	7,298,642,433	7,703,203,046	8,232,561,445	8,870,236,372	9,494,064,428	10,150,050,100	10,842,460,139	11,577,447,255	81,029,073,179	3,450,030,749
Uncompensated Care	1,162,772,517	1,180,484,797	1,016,981,323	1,026,615,884	1,051,833,112	1,134,033,409	1,224,802,260	1,320,309,969	1,422,399,673	10,540,232,944	-5,767,218,199
Other Operating	191,459,675	202,755,796	214,748,221	227,574,551	242,333,796	259,231,866	276,925,329	295,598,219	315,398,825	2,226,026,279	0
Total Operating	17,293,663,247	18,142,746,039	19,411,104,516	20,715,820,607	22,318,220,162	23,966,924,239	25,790,138,687	27,707,465,807	29,758,681,630	205,104,764,934	4,037,052,739
Revenues											
Medicare	5,588,879,445	5,616,228,967	5,912,455,003	6,253,919,558	6,863,142,543	7,336,400,623	7,931,899,210	8,568,276,799	9,374,461,418	63,445,663,567	-6,193,838,689
Medicaid	1,551,833,474	1,674,943,305	2,116,536,976	2,284,033,157	2,432,351,030	2,609,240,230	2,813,517,383	3,016,289,306	3,234,714,104	21,733,458,964	4,920,640,309
Other Govt.	561,695,557	594,835,595	630,018,419	667,647,714	710,947,707	760,522,484	812,430,748	867,212,412	925,302,516	6,530,613,152	0
Private	9,989,832,834	10,627,971,141	11,217,075,013	11,987,904,087	12,916,459,060	13,824,850,811	14,780,069,107	15,788,327,010	16,858,583,832	117,991,072,894	5,023,787,310
Medicaid DSH	174,394,410	179,131,497	182,534,995	168,393,141	163,791,548	120,337,945	116,550,990	146,195,893	151,777,368	1,403,107,787	-326,837,231
Other Operating	574,623,867	608,526,675	644,519,286	683,014,679	727,311,290	778,027,109	831,130,123	887,172,673	946,599,813	6,680,925,515	0
Total	18,441,259,586	19,301,637,180	20,703,139,693	22,044,912,336	23,814,003,177	25,429,379,201	27,285,597,561	29,273,474,093	31,491,439,051	217,784,841,879	3,423,751,700
Net Income	1,147,596,339	1,158,891,141	1,292,035,177	1,329,091,729	1,495,783,016	1,462,454,963	1,495,458,874	1,566,008,285	1,732,757,421	12,680,076,944	-613,301,040
Operating Margin	5.8%	5.6%	5.9%	5.7%	5.9%	5.4%	5.2%	5.0%	5.2%	5.5%	-0.3%