VA Recommendations to the

ASSET AND INFRASTRUCTURE REVIEW COMMISSION

March 2022

Appendix H

Cost Benefit Analysis – VISN 23

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The recommendations for modernization and realignment of VHA infrastructure submitted by the Secretary of the Department of Veterans Affairs to the Asset and Infrastructure Review (AIR) Commission are focused on allowing VA to provide accessible, timely, and high-quality health care for Veterans now and in the future. To inform the recommendations, VA conducted a Cost Benefit Analysis (CBA) that examines the cost-efficiency and benefits to Veterans of various courses of action (COAs) within each market. The CBA compares the costs and benefits associated with maintaining the current facilities, modernizing the current facilities, or strategically realigning and modernizing facilities in each market to inform the identification of a preferred COA.

The CBA aligns with requirements outlined in Section 1703C of Title 38, United States Code (U.S.C.), as added by Section 203 of the VA MISSION Act of 2018.

> *VA MISSION Act, Section 203(2)(F)*
>
> *"In making recommendations under this subsection, the Secretary shall consider…the extent and timing of potential costs and savings, including the number of years such costs or savings will be incurred, beginning with the date of completion of the proposed recommendation."*

This CBA summary document defines the COAs, provides a brief overview of the methodology, and outlines the results of the CBA and the associated sensitivity analysis.

Overview of COAs and Methodology

The Cost Benefit Analysis (CBA) reviews, analyzes, and compares the costs and benefits of three distinct courses of action (COA):

- maintaining VA's current facilities assuming no changes or additional modernization to current facilities, programs, and infrastructure (COA Name: Status Quo)
- modernizing the current facilities without strategically realigning facilities (COA Name: Modernization)
- strategically realigning and modernizing facilities (COA Name: VA Recommendation to the AIR Commission)

To evaluate these courses of action, VA examined the combined cost and benefits of each COA for each market. The CBA was conducted at the market level, rather than at the facility level, to allow for a holistic assessment of a COA's impact that considers optimization of the market across all health care facilities. The financial costs were assessed using a Present Value (PV) analysis while the non-financial benefits were assessed using a Benefits Analysis Scoring process. Ultimately, the CBA results in a Cost-Benefit Index – a simple metric by which to compare the combined cost and non-financial benefits associated with each COA. The CBI equals the total life-cycle cost (PV) of each COA in PV dollars, divided by the Benefits Analysis score for that COA's non-financial benefits normalized to the billions place. The COA with the lowest CBI score is the preferred COA.

Summary of Results

The VA Recommendation COA is the leading COA analyzed in the VISN 23 Minnesota East Market due to its leading Cost Benefit Index (CBI) score. The CBI score for the VA Recommendation COA (1.92) is 31.2% lower than the Status Quo COA (2.79) and 20.8% lower than the Modernization COA (2.42).

The VA Recommendation COA is $1.7 B (7.0%) more expensive than the Status Quo COA and $216.6 M (0.8%) more expensive than the Modernization COA. While the VA Recommendation COA increases cost compared to the Status Quo and Modernization COAs, it also increases benefits as seen by a 14-point benefits score compared to 9 for the Status Quo COA and 11 for the Modernization COA.

The tables below detail the present values, benefit scores, and CBIs for each COA.

Table 1 – CBI Scores by COA

	Status Quo	Modernization	VA Recommendation
COA PV ($)	($25,127,478,077)	($26,657,530,542)	($26,874,142,139)
Benefit Analysis Score	9	11	14
CBI (Normalized in $Billions)	2.79	2.42	1.92
CBI % Change vs. Status Quo	N/A	-13.2%	-31.2%
CBI % Change vs. Modernization	N/A	N/A	-20.8%

Table 2 – Cost Analysis Cost Variance by COA

Cost Variance	Status Quo	Modernization	VA Recommendation
Capital Cost Variance vs. Status Quo	N/A	($1,530,052,465)	($1,746,664,062)
Operational Cost Variance vs. Status Quo	N/A	$0	$0
Estimated Total Cost Variance vs. Status Quo	N/A	($1,530,052,465)	($1,746,664,062)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	($216,611,597)

Note: Operational unit costs were provided at the parent facility level not at the facility level. Therefore, the analysis does not estimate the changes in operational costs stemming from new, expanded, or removed points of care (POC). The analysis only shows changes to operational costs when a service line is shifted, at the parent facility level, from VA care to non-VA care.

Table 3 – Benefit Analysis Scores by COA

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3
Access	2	2	3
Quality	3	3	3
Facilities and Sustainability	1	2	2
Mission	2	2	3
Total Benefit Score	**9**	**11**	**14**

VA Recommendation

The VA Recommendation for the VISN 23 Minnesota East Market COA is detailed below.

- Modernize the inpatient medical and surgical services space at the Minneapolis VAMC

Cost Analysis

The Cost Analysis highlighted the estimated Present Value (PV) of each COA for the VISN 23 Minnesota East Market across a 30-year horizon. The cost of the VA Recommendation COA ($26.9 B) was higher than the Status Quo COA ($25.1 B) and the Modernization COA ($26.7 B).

For the VISN 23 Minnesota East Market, the VA Recommendation COA is $1.7 B (7.0%) more expensive than the Status Quo COA and $216.6 M (0.8%) more expensive than the Modernization COA. The cost difference between the VA Recommendation COA and Status Quo COA can be attributed to new facilities, closing or modernizing existing facilities, and scaling capacity of existing facilities up or down to meet future Veteran in-house demand to accommodate changes in demand.

The table below outlines the costs associated with each of the COAs. For more detail refer to Appendix A – VISN 23 Minnesota East: Capital and Operational Costs Detail.

Table 4 – Total Cost Summary by COA

	Status Quo	Modernization	VA Recommendation
Total Costs (PV)	($25,127,478,077)	($26,657,530,542)	($26,874,142,139)
Capital Cost Variance vs. Status Quo	N/A	($1,530,052,465)	($1,746,664,062)
Operational Cost Variance vs. Status Quo	N/A	$0	$0

	Status Quo	Modernization	VA Recommendation
Non-VA Care Operational Cost Variance	N/A	$0	$0
VA Care Operational Cost Variance	N/A	$0	$0
Estimated Total Cost Variance vs. Status Quo	N/A	($1,530,052,465)	($1,746,664,062)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	($216,611,597)

Benefit Analysis

This section describes the non-financial benefit analysis results for the VISN 23 Minnesota East Market across five domains: Demand and Supply, Access, Quality, Facilities and Sustainability, and Mission. The results indicate that the VA Recommendation COA provides the most benefit (greatest Total Benefit Score) in comparison to the Status Quo and Modernization COAs.

Table 5 – Benefit Analysis Scores by COA

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3
Access	2	2	3
Quality	3	3	3
Facilities and Sustainability	1	2	2
Mission	2	2	3
Total Benefit Score	**9**	**11**	**14**

The scoring and rationale within each domain are described in the following sections. The data underlying the analysis is provided in Appendix B – VISN 23 Minnesota East: Benefits Analysis Key Data. Additional information regarding the scoring methodology is provided in the CBA Methodology.

Demand and Supply

Within the Demand and Supply domain, the CBA considers how each COA impacts VA's ability to meet Veteran demand in the future. Each COA is assessed on two benefit components: (1) the ability to

balance demand and supply; (2) the changes to facility placement or service offerings that improve VA's ability to meet future demand.

The table below shows the scores for VISN 23 Minnesota East for this domain.

Table 6 – Demand and Supply Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3

Status Quo: The COA received a score of 1 because at least one inpatient service line was over/under supplied, or more than 50% of specialties were inadequately supplied when compared to future Veteran in-house demand. Additionally, no changes to facilities or services were introduced that improve VA's ability to meet the future Veteran enrollee population (e.g., relocation or establishment of facilities in areas with greater Veteran demand, expansion of services).

Modernization: The COA received a score of 2 because, while Modernization right-sizes services to meet future Veteran in-house demand, the COA does not include changes to facilities or services that improve VA's ability to meet the future Veteran enrollee population (e.g., relocation or establishment of facilities in areas with greater Veteran demand, addition of new services).

VA Recommendation: The COA received a score of 3 because it right-sizes services to meet future Veteran enrollee demand and includes changes to facilities or services that improve VA's ability to meet future Veteran enrollee demand based on guidelines established in the CBA methodology. These changes include the following:

- Expands the Maplewood CBOC to a MS CBOC, adding specialty care services
- Expands the Chippewa Valley CBOC to a MS CBOC, adding specialty care services
- Expands the Rochester CBOC to a MS CBOC, adding specialty care services
- Expands the Shakopee CBOC to a MS CBOC, adding specialty care services

Access

Within the Access domain, the CBA considers how each COA impacts Veteran access to care in the future. Each COA is assessed on the change in enrollee proximity to VA-provided primary care, specialty care, and outpatient mental health care.

The table below shows the CBA access scores for VISN 23 Minnesota East for this domain.

Table 7 – Access Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Access	2	2	3

Note: the CBA Access domain score is based on enrollee proximity to VA-provided care only rather than the full high-performing integrated delivery network (inclusive of VA, Community Care Network providers, and non-Community Care Network providers meeting quality criteria). While a COA may have a reduced access score within the CBA, the Section 203 Criteria analysis shows that the VA Recommendation COA maintains or improves access to all service lines in the future high-performing integrated delivery network (HPIDN).

Status Quo: The COA received a score of 2 because access is maintained within 1% for VA-provided primary care, specialty care, and outpatient mental health care.

Modernization: The COA received a score of 2 because access is maintained within 1% for VA-provided primary care, specialty care, and outpatient mental health care.

VA Recommendation: The COA received a score of 3 because access to VA-provided primary care increased 1% or more, specialty care increased 1% or more, and outpatient mental health care was increased within 1%.

Quality

Within the Quality domain, the CBA considers how each COA impacts the quality of Veteran care in the future. Each COA is assessed based on two benefit components: (1) the ability of the main patient care facilities to support modern healthcare; (2) the ability of demand to support clinical competency.

The table below shows the scores for VISN 23 Minnesota East for this domain.

Table 8 – Quality Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Quality	3	3	3

Status Quo: The COA received a score of 3 for two reasons. First, the COA contains only modern facilities that meet modern health care design standards. Modern facilities support current standards of care (e.g., PACT-enabled environment in the outpatient setting, single patient rooms in the inpatient setting) and utilization of technologies. They can also improve the experience for both Veterans and staff. Second, the COA includes facilities with projected future demand at or above VA planning guidelines for maintaining programs. VA's planning guidelines reflect that sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery.

Modernization: The COA received a score of 3 for two reasons. First, the COA contains only modern facilities that meet modern health care design standards. Modern facilities support current standards of care (e.g., PACT-enabled environment in the outpatient setting, single patient rooms in the inpatient setting) and utilization of technologies. They can also improve the experience for both Veterans and staff. Second, the COA includes facilities with projected future demand at or above VA planning guidelines for maintaining programs. VA's planning guidelines reflect that sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery.

VA Recommendation: The COA received a score of 3 for two reasons. First, the COA contains only modern facilities that meet modern health care design standards. Modern facilities support current standards of care (e.g., PACT-enabled environment in the outpatient setting, single patient rooms in the inpatient setting) and utilization of technologies. They can also improve the experience for both Veterans and staff. Second, the COA includes facilities with projected future demand at or above VA planning guidelines for maintaining programs. VA's planning guidelines reflect that sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery.

Facilities and Sustainability

Within the Facilities and Sustainability domain, the CBA considers how each COA impacts the sustainability of Veteran care in the future. Each COA is assessed based on two benefit components: (1) the useful life of the main patient care facilities; (2) changes that strengthen VA's ability to recruit and retain providers.

The table below shows the scores for VISN 23 Minnesota East for this domain.

Table 9 – Facilities and Sustainability Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Facilities and Sustainability	1	2	2

Note: The American Hospital Association estimates that a hospital's useful life, a measure which predicts the productive period of a typical capital asset before it becomes obsolete or needs replacement, is currently 40 years.

Status Quo: The COA received a score of 1 for two reasons. First, the COA includes at least one main patient care facility that exceeds its useful life as defined by the American Hospital Association, indicating it may be obsolete or need replacement. Second, the COA does not include changes that strengthen VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities).

Modernization: The COA received a score of 2 for two reasons. First, the COA replaces all main patient care facilities that have exceeded their useful life with modern facilities that can be sustained over the coming years. Second, while the COA includes modernized infrastructure, which may attract providers, it does not include additional changes to support VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities).

VA Recommendation: The COA received a score of 2 for two reasons. First, the COA replaces all main patient care facilities that have exceeded their useful life with modern facilities that can be sustained over the coming years. Second, while the COA includes modernized infrastructure, which may attract providers, it does not include additional changes to support VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities).

Mission

Within the Mission domain, the CBA considers how each COA impacts VA's ability to support its statutory missions of Education, Research, and Emergency Preparedness in the future. Each COA is assessed on three benefit components: (1) the impact on training programs; (2) the impact on research programs; (3) the impact on emergency preparedness.

A COA's overall score in the Mission domain is determined by the rounded average (unweighted) of its component (e.g., Education, Research, Emergency Preparedness) scores. The table below shows the scores for VISN 23 Minnesota East for this domain.

Table 10 – Mission Scoring Summary

Subdomain	Status Quo	Modernization	VA Recommendation
Education	2	2	3
Research	2	2	3
Emergency Preparedness	2	2	2
Overall Mission Score (Rounded Average)	**2**	**2**	**3**

Status Quo: The COA received a score of 2 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 2 because it does not impact inpatient acute service lines and thus maintains existing training programs.
- **Research:** The COA received a score of 2 because all existing facilities with research programs are maintained.
- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

Modernization: The COA received a score of 2 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 2 because it does not impact inpatient acute service lines and thus maintains existing training programs.
- **Research:** The COA received a score of 2 because all existing facilities with research programs are maintained.
- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

VA Recommendation: The COA received a score of 3 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 3 because inpatient acute services remain VA-delivered and thus the COA maintains existing training programs. Additionally, the COA includes new (not replacement) infrastructure that creates new opportunities for training within the market.
- **Research:** The COA received a score of 3 because it maintains all research programs and builds new (not replacement) infrastructure to support additional research space.
- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

Sensitivity Analysis

A sensitivity analyses study shows how various sources of uncertainty in a mathematical model contribute to the model's overall uncertainty. The market is considered sensitive to a scenario when the VA Recommendation is no longer the leading COA due to changes in benefit scores, VA capital costs, VA operational costs, or non-VA operational costs.

The table below outlines the sensitivity analysis scenarios completed.

Table 11 – Sensitivity Analysis Scenarios

Sensitivity Analysis Scenarios
Increase Benefit Scores for Status Quo and Modernization in increments of one from 1 to 3 points
Increase VA Capital Costs in 50% increments from 0% to 300%
Increase VA Operational Costs in 50% increments from 0% to 300%
Increase Non-VA Operational Costs in 50% increments from 0% to 300%

Sensitivity Analysis Results Summary

In the VISN 23 Minnesota East Market, one scenario changed the outcome of the CBA:

- Increasing the Modernization benefits score by three points

Sensitivity Analysis Full Results

The below tables show the results across all sensitivity analysis scenarios.

Table 12 – Sensitivity Analyses – Benefit Score Increase

Status Quo and Modernization Benefit Score Change	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
+0	2.79	2.42	1.92	VA Recommendation
+1	2.51	2.22	1.92	VA Recommendation
+2	2.28	2.05	1.92	VA Recommendation
+3	2.09	1.90	1.92	Modernization

Table 13 – Sensitivity Analyses – VA Capital Cost Increase

VA Capital Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	2.79	2.42	1.92	VA Recommendation
50%	2.83	2.53	2.01	VA Recommendation
100%	2.88	2.63	2.10	VA Recommendation
150%	2.92	2.73	2.19	VA Recommendation
200%	2.96	2.84	2.28	VA Recommendation
250%	3.00	2.94	2.37	VA Recommendation
300%	3.04	3.05	2.46	VA Recommendation

Table 14 – Sensitivity Analyses – VA Operational Cost Increase

VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	2.79	2.42	1.92	VA Recommendation
50%	3.81	3.25	2.57	VA Recommendation
100%	4.82	4.09	3.23	VA Recommendation
150%	5.84	4.92	3.88	VA Recommendation
200%	6.86	5.75	4.53	VA Recommendation
250%	7.87	6.58	5.19	VA Recommendation
300%	8.89	7.41	5.84	VA Recommendation

Table 15 – Sensitivity Analyses – Non-VA Operational Cost Increase

Non-VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	2.79	2.42	1.92	VA Recommendation
50%	3.13	2.70	2.14	VA Recommendation
100%	3.47	2.98	2.35	VA Recommendation
150%	3.81	3.25	2.57	VA Recommendation
200%	4.14	3.53	2.79	VA Recommendation
250%	4.48	3.81	3.01	VA Recommendation
300%	4.82	4.08	3.22	VA Recommendation

Appendix A – VISN 23 Minnesota East: Capital and Operational Costs Detail

Table 16 – Capital Costs by COA

	Status Quo	Modernization	VA Recommendation
VAMC Ideal Square Footage	-	2,157,187	2,315,056
Build New GSF	-	419,330	536,270
Renovate In Place GSF	-	1,116,897	1,092,586
Matched Convert To GSF	-	474,194	498,505
Demolition GSF	-	300,221	300,221
Total Build New Cost	$0	($506,206,529)	($651,239,179)
Total Renovate In Place Cost	$0	($503,593,032)	($487,032,048)
Total Matched Convert To Cost	$0	($235,194,627)	($243,199,349)
Total Demolition Cost	$0	($12,591,553)	($12,591,553)
Total Lease Build-Out Cost	$0	($75,513,921)	($75,513,926)
Total New Lease Cost	$0	($269,142,970)	($269,143,105)
Total Existing Lease Cost	($62,989,389)	($62,989,270)	($62,989,389)
NRM Costs for Owned Facilities	($607,295,564)	($251,835,586)	($270,265,625)
FCA Correction Cost	($73,262,239)	N/A	N/A
Estimated Base Modernization Cost	($743,547,192)	($1,917,067,489)	($2,071,974,174)
Additional Common/Lobby Space Needed (GSF)	-	146,766	187,695
Cost of Additional Common/Lobby Space	$0	($135,693,880)	($173,535,300)
Additional Parking Cost	$0	$0	($1,886,365)

	Status Quo	Modernization	VA Recommendation
Potential Land Acquisition Cost	$0	$0	$0
Seismic Correction Cost	($35,506)	$0	$0
Non-Building FCA Correction Cost	($8,425,304)	($8,425,303)	($8,425,304)
Activation Costs	$0	($220,873,797)	($242,850,922)
Estimated Additional Costs for Modernization	($8,460,810)	($364,992,980)	($426,697,891)
Cost Adjustment: In-Progress Construction	N/A	N/A	$0
Cost Adjustment: In-Progress Lease	N/A	N/A	$0
Estimated Facilities Costs (PV)	($752,008,002)	($2,282,060,467)	($2,498,672,064)

Table 17 – Operational Costs by COA

	Status Quo	Modernization	VA Recommendation
VA Direct	($10,456,371,958)	($10,456,371,958)	($10,456,371,958)
Fixed Direct	($1,708,842,234)	($1,708,842,234)	($1,708,842,234)
VA Specific Direct	($583,792,728)	($583,792,728)	($583,792,728)
Indirect	($4,108,493,019)	($4,108,493,019)	($4,108,493,019)
VA Specific Indirect	($528,424,553)	($528,424,553)	($528,424,553)
Research and Education	($17,826,009)	($17,826,009)	($17,826,009)
VA Overhead	($889,392,335)	($889,392,335)	($889,392,335)
VA Care Operational Cost Total (PV)	($18,293,142,837)	($18,293,142,837)	($18,293,142,837)
CC Direct	($4,330,323,705)	($4,330,323,705)	($4,330,323,705)
Delivery and Operations	($183,042,852)	($183,042,852)	($183,042,852)

	Status Quo	Modernization	VA Recommendation
Care Coordination	($173,670,389)	($173,670,389)	($173,670,389)
CC Overhead	($245,177,154)	($245,177,154)	($245,177,154)
Admin PMPM	($1,150,113,139)	($1,150,113,139)	($1,150,113,139)
Non-VA Care Operational Cost Total (PV)	($6,082,327,238)	($6,082,327,238)	($6,082,327,238)
Estimated Operational Costs (PV)	($24,375,470,075)	($24,375,470,075)	($24,375,470,075)

Appendix B – VISN 23 Minnesota East: Benefits Analysis Key Data

Below are key data points used in the benefit analysis, summarized in the above Benefit Analysis section.

Demand and Supply

Inpatient

Table 18 – Demand and Supply Key Data Points for Scoring – Inpatient (IP)

Service Line	100% of FY29 In-house Bed Need	120% of FY29 In-house Bed Need	Operating Beds	Supply Adequacy (within 100-120% of in-house demand)
IP CLC	104	125	84	Under Supplied
IP Med/Surg	98	117	185	Over Supplied
IP MH	31	37	24	Under Supplied

Note: Community Living Center (CLC); Medicine (Med); Surgery (Surg); Mental Health (MH)

Source: Enrollee Healthcare Projection Model Base Year 2019

Outpatient

Table 19 – Demand and Supply Key Data Points for Scoring – Outpatient (OP)

Physician Supply Adequacy	Count of Specialties	Percentage
Adequately Supplied	17	63%
Under Supplied	10	37%

Note: VA supply in the Status Quo COA is quantitatively evaluated based on the data above. It is assumed the Modernization COA scales the capacity of existing facilities up or down to meet future Veteran in-house demand. Similar to the Modernization COA, it is assumed the VA Recommendation COA scales the capacity of existing and proposed facilities up or down to meet future Veteran in-house demand. However, the VA Recommendation COA may account for factors that demand projections do not consider that may shift the future balance of in-house and community workload, such as:

- Areas with unmet Veteran demand that may warrant a net new point of care
- Low-census inpatient acute programs that may pose risks to quality and training programs, potentially warranting a shift to community providers
- Community capacity factors that may warrant changes to VA capacity

Source: Office of Productivity, Efficiency and Staffing 2019 Capacity Report

Table 20 – New Facility Demand Guidelines

Facility or Service	Guideline
Inpatient Acute VAMCs	Greater than or equal to 35,000 overlapping enrollees
Inpatient CLC	Greater than or equal to 21,000 overlapping enrollees
Health Care Center	Greater than or equal to 34,000 overlapping enrollees
MS CBOC	Greater than or equal to 4,300 non-overlapping enrollees
CBOC	Greater than or equal to 2,500 non-overlapping enrollees

Note: The above guidelines are used to determine whether a new (not replacement) point of care or service proposed in the VA recommendation had adequate demand.

Access

Table 21 – Access Key Data Points for Scoring

COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of VA-provided OP Mental Health	75.4%	75.4%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of VA-provided OP Primary Care	76.6%	76.6%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of VA-provided OP Specialty Care	70.3%	70.3%	Maintained within 1%

COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	97.5%	97.5%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.5%	99.5%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Mental Health	75.4%	75.4%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Primary Care	76.6%	76.6%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of VA-provided OP Specialty Care	70.3%	70.3%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	97.5%	97.5%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.5%	99.5%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Mental Health	75.4%	76.4%	Increased 1% or more

COA	Measure	Current	Future	Result
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Primary Care	76.6%	77.6%	Increased 1% or more
VA Recommendation	% of enrollees within 60 minutes of VA-provided OP Specialty Care	70.3%	86.3%	Increased 1% or more
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	97.5%	97.5%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.5%	99.5%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%

Note: the CBA Access domain score is based on enrollee proximity to VA-provided care only rather than the full high-performing integrated delivery network (HPIDN) (inclusive of VA, Community Care Network, and non-Community Care Network providers meeting quality criteria). While a COA may have a reduced access score within the CBA, the Section 203 Criteria analysis shows that the VA Recommendation COA maintains or improves access to all service lines in the future HPIDN. The table above shows the results for enrollee proximity to the full HPIDN as well as to VA-provided care in the market.

Source: Enrollee data from the FY19 Geocoded Enrollee File. Existing VA facility location data from VAST. Commercial provider location data from Definitive Healthcare.

Quality

Main Patient Care Facility Construction Date

Table 22 – Quality Key Data Points for Scoring – Age

Facility	Main Patient Care Facility Construction Date	Built Pre-1970?
(V23) (618) Minneapolis-Minnesota	1985	No

Source: Main patient care facility construction and renovation dates from CAI Buildings and FCA Condition Gaps Reports 9-14-2020

Inpatient Acute Demand

Table 23 – Quality Key Data Points for Scoring – Inpatient Acute Demand

Facility	Service	Demand Guideline	Meets or Exceeds Guideline?	VA Recommendation
(V23) (618) Minneapolis	IP Med	20 ADC	Yes	Maintain
(V23) (618) Minneapolis	IP Surg	1,600 Cases	Yes	Maintain
(V23) (618) Minneapolis	IP MH	8 ADC	Yes	Maintain

Note: The Status Quo and Modernization COAs are assumed to maintain all current facilities and services. The VA Recommendation COA proposes maintaining, partnering, and divesting of services at each facility, shown in the last column titled "VA Recommendation". To score a 3, the VA recommendation must partner or divest of all low-demand services.

Source: FY 2029 average daily census for inpatient services is based on Enrollee Healthcare Projection Model Base Year 2019. 2019 Total Surgical Cases is from the VA National Surgery Office.

Facilities and Sustainability

Table 24 – Facilities and Sustainability Key Data Points for Scoring

Facility	Main Patient Care Facility Construction Date	Most Recent Main Patient Care Facility Renovation Date	Exceeds Useful Life?
(V23) (618) Minneapolis-Minnesota	1985	N/A	Yes

Source: From CAI Buildings and FCA Condition Gaps Reports 9-14-2020

Table 25 – Key Data Points for Scoring - Recruitment and Retention

Facility	Expands VA's Ability to Recruit/Retain?
N/A	N/A

Mission

Table 26 – Mission Key Data Points for Scoring

The Status Quo and Modernization COAs are assumed to have no impact on VA's statutory missions. The impact of the VA Recommendation on VA's statutory missions is shown in the table below:

Facility	Training Impact	Research Impact	4th Mission Impact	Market Plan Includes New Facilities/Services To Increase Training/Research Opportunities
(V23) (618) Minneapolis	No impact on training	Maintains or Has Plan to Transition	Maintains PRC-designation	Increases Research Opportunities, Increases Training Opportunities

VISN 23 Minnesota Central

The recommendations for modernization and realignment of VHA infrastructure submitted by the Secretary of the Department of Veterans Affairs to the Asset and Infrastructure Review (AIR) Commission are focused on allowing VA to provide accessible, timely, and high-quality health care for Veterans now and in the future. To inform the recommendations, VA conducted a Cost Benefit Analysis (CBA) that examines the cost-efficiency and benefits to Veterans of various courses of action (COAs) within each market. The CBA compares the costs and benefits associated with maintaining the current facilities, modernizing the current facilities, or strategically realigning and modernizing facilities in each market to inform the identification of a preferred COA.

The CBA aligns with requirements outlined in Section 1703C of Title 38, United States Code (U.S.C.), as added by Section 203 of the VA MISSION Act of 2018.

> *VA MISSION Act, Section 203(2)(F)*
>
> *"In making recommendations under this subsection, the Secretary shall consider…the extent and timing of potential costs and savings, including the number of years such costs or savings will be incurred, beginning with the date of completion of the proposed recommendation."*

This CBA summary document defines the COAs, provides a brief overview of the methodology, and outlines the results of the CBA and the associated sensitivity analysis.

Overview of COAs and Methodology

The Cost Benefit Analysis (CBA) reviews, analyzes, and compares the costs and benefits of three distinct courses of action (COA):

- maintaining VA's current facilities assuming no changes or additional modernization to current facilities, programs, and infrastructure (COA Name: Status Quo)
- modernizing the current facilities without strategically realigning facilities (COA Name: Modernization)
- strategically realigning and modernizing facilities (COA Name: VA Recommendation to the AIR Commission)

To evaluate these courses of action, VA examined the combined cost and benefits of each COA for each market. The CBA was conducted at the market level, rather than at the facility level, to allow for a holistic assessment of a COA's impact that considers optimization of the market across all health care facilities. The financial costs were assessed using a Present Value (PV) analysis while the non-financial benefits were assessed using a Benefits Analysis Scoring process. Ultimately, the CBA results in a Cost-Benefit Index – a simple metric by which to compare the combined cost and non-financial benefits associated with each COA. The CBI equals the total life-cycle cost (PV) of each COA in PV dollars, divided by the Benefits Analysis score for that COA's non-financial benefits normalized to the billions place. The COA with the lowest CBI score is the preferred COA.

Summary of Results

The VA Recommendation COA is the leading COA analyzed in the VISN 23 Minnesota Central Market due to its leading Cost Benefit Index (CBI) score. The CBI score for the VA Recommendation COA (0.94) is 27.3% lower than the Status Quo COA (1.29) and 11.3% lower than the Modernization COA (1.06).

The VA Recommendation COA is $1.9 B (18.2%) more expensive than the Status Quo COA and $566.0 M (4.9%) more expensive than the Modernization COA. While the VA Recommendation COA increases cost compared to the Status Quo and Modernization COAs, it also increases benefits as seen by a 13-point benefits score compared to 8 for the Status Quo COA and 11 for the Modernization COA.

The tables below detail the present values, benefit scores, and CBIs for each COA.

Table 27 – CBI Scores by COA

	Status Quo	Modernization	VA Recommendation
COA PV ($)	($10,308,981,328)	($11,614,723,107)	($12,180,704,658)
Benefit Analysis Score	8	11	13
CBI (Normalized in $Billions)	1.29	1.06	0.94
CBI % Change vs. Status Quo	N/A	-18.1%	-27.3%
CBI % Change vs. Modernization	N/A	N/A	-11.3%

Table 28 – Cost Analysis Cost Variance by COA

Cost Variance	Status Quo	Modernization	VA Recommendation
Capital Cost Variance	N/A	($1,305,741,778)	($1,871,723,329)
Operational Cost Variance	N/A	$0	$0
Estimated Total Cost Variance vs. Status Quo	N/A	($1,305,741,778)	($1,871,723,329)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	($565,981,550)

Note: Operational unit costs were provided at the parent facility level not at the facility level. Therefore, the analysis does not estimate the changes in operational costs stemming from new, expanded, or removed points of care (POC). The analysis only shows changes to operational costs when a service line is shifted, at the parent facility level, from VA care to non-VA care.

Table 29 – Benefit Analysis Scores by COA

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3
Access	2	2	3
Quality	2	3	3
Facilities and Sustainability	1	2	2
Mission	2	2	2
Total Benefit Score	**8**	**11**	**13**

VA Recommendation

The VA Recommendation for the VISN 23 Minnesota Central Market COA is detailed below.

- Modernize the St. Cloud VAMC by:
  - Modernizing the outpatient space at the St. Cloud VAMC
  - Modernizing the CLC at the St. Cloud VAMC
  - Modernizing the RRTP at the St. Cloud VAMC
- Modernize and realign outpatient facilities in the market by:
  - Establishing a new CBOC in the vicinity of Cambridge, Minnesota
  - Establishing a new CBOC in the vicinity of Litchfield, Minnesota

Cost Analysis

The Cost Analysis highlighted the estimated Present Value (PV) of each COA for the VISN 23 Minnesota Central Market across a 30-year horizon. The cost of the VA Recommendation COA ($12.2 B) was higher than the Status Quo COA ($10.3 B) and the Modernization COA ($11.6 B).

For the VISN 23 Minnesota Central Market, the VA Recommendation COA is $1.9 B (18.2%) more expensive than the Status Quo COA and $566.0 M (4.9%) more expensive than the Modernization COA. The cost difference between the VA Recommendation COA and Status Quo COA can be attributed to new facilities, closing or modernizing existing facilities, and scaling capacity of existing facilities up or down to meet future Veteran in-house demand to accommodate changes in demand.

The table below outlines the costs associated with each of the COAs. For more detail refer to Appendix A – VISN 23 Minnesota Central: Capital and Operational Costs Detail.

Table 30 – Total Cost Summary by COA

	Status Quo	Modernization	VA Recommendation
Total Costs (PV)	($10,308,981,328)	($11,614,723,107)	($12,180,704,658)
Capital Cost Variance vs. Status Quo	N/A	($1,305,741,778)	($1,871,723,329)
Operational Cost Variance vs. Status Quo	N/A	$0	$0
Non-VA Care Operational Cost Variance	N/A	$0	$0
VA Care Operational Cost Variance	N/A	$0	$0
Estimated Total Cost Variance vs. Status Quo	N/A	($1,305,741,778)	($1,871,723,329)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	($565,981,550)

Benefit Analysis

This section describes the non-financial benefit analysis results for the VISN 23 Minnesota Central Market across five domains: Demand and Supply, Access, Quality, Facilities and Sustainability, and Mission. The results indicate that the VA Recommendation COA provides the most benefit (greatest Total Benefit Score) in comparison to the Status Quo and Modernization COAs.

Table 31 – Benefit Analysis Scores by COA

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3
Access	2	2	3
Quality	2	3	3
Facilities and Sustainability	1	2	2
Mission	2	2	2

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Total Benefit Score	**8**	**11**	**13**

The scoring and rationale within each domain are described in the following sections. The data underlying the analysis is provided in Appendix B – VISN 23 Minnesota Central: Benefits Analysis Key Data. Additional information regarding the scoring methodology is provided in the CBA Methodology.

Demand and Supply

Within the Demand and Supply domain, the CBA considers how each COA impacts VA's ability to meet Veteran demand in the future. Each COA is assessed on two benefit components: (1) the ability to balance demand and supply; (2) the changes to facility placement or service offerings that improve VA's ability to meet future demand.

The table below shows the scores for VISN 23 Minnesota Central for this domain.

Table 32 – Demand and Supply Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3

Status Quo: The COA received a score of 1 because at least one inpatient service line was over/under supplied, or more than 50% of specialties were inadequately supplied when compared to future Veteran in-house demand. Additionally, no changes to facilities or services were introduced that improve VA's ability to meet the future Veteran enrollee population (e.g., relocation or establishment of facilities in areas with greater Veteran demand, expansion of services).

Modernization: The COA received a score of 2 because, while Modernization right-sizes services to meet future Veteran in-house demand, the COA does not include changes to facilities or services that improve VA's ability to meet the future Veteran enrollee population (e.g., relocation or establishment of facilities in areas with greater Veteran demand, addition of new services).

VA Recommendation: The COA received a score of 3 because it right-sizes services to meet future Veteran enrollee demand and includes changes to facilities or services that improve VA's ability to meet future Veteran enrollee demand based on guidelines established in the CBA methodology. These changes include the following:

- Establishes a new Cambridge CBOC to provide primary care and outpatient mental health services; there are 4,152 enrollees for which the proposed facility is the closest VA point of care within 30 minutes
- Establishes a new Litchfield CBOC to provide primary care and outpatient mental health services; there are 2,599 enrollees for which the proposed facility is the closest VA point of care within 30 minutes

Access

Within the Access domain, the CBA considers how each COA impacts Veteran access to care in the future. Each COA is assessed on the change in enrollee proximity to VA-provided primary care, specialty care, and outpatient mental health care.

The table below shows the CBA access scores for VISN 23 Minnesota Central for this domain.

Table 33 – Access Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Access	2	2	3

Note: the CBA Access domain score is based on enrollee proximity to VA-provided care only rather than the full high-performing integrated delivery network (inclusive of VA, Community Care Network providers, and non-Community Care Network providers meeting quality criteria). While a COA may have a reduced access score within the CBA, the Section 203 Criteria analysis shows that the VA Recommendation COA maintains or improves access to all service lines in the future high-performing integrated delivery network (HPIDN).

Status Quo: The COA received a score of 2 because access is maintained within 1% for VA-provided primary care, specialty care, and outpatient mental health care.

Modernization: The COA received a score of 2 because access is maintained within 1% for VA-provided primary care, specialty care, and outpatient mental health care.

VA Recommendation: The COA received a score of 3 because access to VA-provided primary care increased 1% or more, specialty care was maintained within 1%, and outpatient mental health care increased 1% or more.

Quality

Within the Quality domain, the CBA considers how each COA impacts the quality of Veteran care in the future. Each COA is assessed based on two benefit components: (1) the ability of the main patient care facilities to support modern healthcare; (2) the ability of demand to support clinical competency.

The table below shows the scores for VISN 23 Minnesota Central for this domain.

Table 34 – Quality Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Quality	2	3	3

Status Quo: The COA received a score of 2 for two reasons. First, the COA includes main patient care facilities that were built prior to the emergence of modern healthcare design principles and specific standards to support modern medicine (e.g., floor-to-floor heights, corridor widths, columns spacing, and utility infrastructure requirements). Second, the COA includes facilities with projected future demand at or above VA planning guidelines for maintaining programs. VA's planning guidelines reflect that sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery.

Modernization: The COA received a score of 3 for two reasons. First, the COA contains only modern facilities that meet modern health care design standards. Modern facilities support current standards of

care (e.g., PACT-enabled environment in the outpatient setting, single patient rooms in the inpatient setting) and utilization of technologies. They can also improve the experience for both Veterans and staff. Second, the COA includes facilities with projected future demand at or above VA planning guidelines for maintaining programs. VA's planning guidelines reflect that sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery.

VA Recommendation: The COA received a score of 3 for two reasons. First, the COA contains only modern facilities that meet modern health care design standards. Modern facilities support current standards of care (e.g., PACT-enabled environment in the outpatient setting, single patient rooms in the inpatient setting) and utilization of technologies. They can also improve the experience for both Veterans and staff. Second, the COA includes facilities with projected future demand at or above VA planning guidelines for maintaining programs. VA's planning guidelines reflect that sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery.

Facilities and Sustainability

Within the Facilities and Sustainability domain, the CBA considers how each COA impacts the sustainability of Veteran care in the future. Each COA is assessed based on two benefit components: (1) the useful life of the main patient care facilities; (2) changes that strengthen VA's ability to recruit and retain providers.

The table below shows the scores for VISN 23 Minnesota Central for this domain.

Table 35 – Facilities and Sustainability Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Facilities and Sustainability	1	2	2

Note: The American Hospital Association estimates that a hospital's useful life, a measure which predicts the productive period of a typical capital asset before it becomes obsolete or needs replacement, is currently 40 years.

Status Quo: The COA received a score of 1 for two reasons. First, the COA includes at least one main patient care facility that exceeds its useful life as defined by the American Hospital Association, indicating it may be obsolete or need replacement. Second, the COA does not include changes that strengthen VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities).

Modernization: The COA received a score of 2 for two reasons. First, the COA replaces all main patient care facilities that have exceeded their useful life with modern facilities that can be sustained over the coming years. Second, while the COA includes modernized infrastructure, which may attract providers, it does not include additional changes to support VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities).

VA Recommendation: The COA received a score of 2 for two reasons. First, the COA replaces all main patient care facilities that have exceeded their useful life with modern facilities that can be sustained over the coming years. Second, while the COA includes modernized infrastructure, which may attract providers, it does not include additional changes to support VA's ability to recruit or retain providers

(e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities).

Mission

Within the Mission domain, the CBA considers how each COA impacts VA's ability to support its statutory missions of Education, Research, and Emergency Preparedness in the future. Each COA is assessed on three benefit components: (1) the impact on training programs; (2) the impact on research programs; (3) the impact on emergency preparedness.

A COA's overall score in the Mission domain is determined by the rounded average (unweighted) of its component (e.g., Education, Research, Emergency Preparedness) scores.

The table below shows the scores for VISN 23 Minnesota Central for this domain.

Table 36 – Mission Scoring Summary

Subdomain	Status Quo	Modernization	VA Recommendation
Education	2	2	2
Research	2	2	3
Emergency Preparedness	2	2	2
Overall Mission Score (Rounded Average)	**2**	**2**	**2**

Status Quo: The COA received a score of 2 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 2 because it does not impact inpatient acute service lines and thus maintains existing training programs.
- **Research:** The COA received a score of 2 because all existing facilities with research programs are maintained.
- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

Modernization: The COA received a score of 2 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 2 because it does not impact inpatient acute service lines and thus maintains existing training programs.
- **Research:** The COA received a score of 2 because all existing facilities with research programs are maintained.
- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

VA Recommendation: The COA received a score of 2 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 2 because inpatient acute services remain VA-delivered and thus the COA maintains existing training programs.
- **Research:** The COA received a score of 3 because it maintains all research programs and builds new (not replacement) infrastructure to support additional research space.
- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

Sensitivity Analysis

A sensitivity analyses study shows how various sources of uncertainty in a mathematical model contribute to the model's overall uncertainty. The market is considered sensitive to a scenario when the VA Recommendation is no longer the leading COA due to changes in benefit scores, VA capital costs, VA operational costs, or non-VA operational costs.

The table below outlines the sensitivity analysis scenarios completed.

Table 37 – Sensitivity Analysis Scenarios

Sensitivity Analysis Scenarios
Increase Benefit Scores for Status Quo and Modernization in increments of one from 1 to 3 points
Increase VA Capital Costs in 50% increments from 0% to 300%
Increase VA Operational Costs in 50% increments from 0% to 300%
Increase Non-VA Operational Costs in 50% increments from 0% to 300%

Sensitivity Analysis Results Summary

In the VISN 23 Minnesota Central Market, two scenarios changed the outcome of the CBA:

- Increasing the Modernization benefits score by two points
- Increasing the Modernization benefits score by three points

Sensitivity Analysis Full Results

The below tables show the results across all sensitivity analysis scenarios.

Table 38 – Sensitivity Analyses – Benefit Score Increase

Status Quo and Modernization Benefit Score Change	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
+0	1.29	1.06	0.94	VA Recommendation

Status Quo and Modernization Benefit Score Change	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
+1	1.15	0.97	0.94	VA Recommendation
+2	1.03	0.89	0.94	Modernization
+3	0.94	0.83	0.94	Modernization

Table 39 – Sensitivity Analyses – VA Capital Cost Increase

VA Capital Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.29	1.06	0.94	VA Recommendation
50%	1.33	1.14	1.03	VA Recommendation
100%	1.36	1.23	1.13	VA Recommendation
150%	1.40	1.31	1.22	VA Recommendation
200%	1.43	1.40	1.31	VA Recommendation
250%	1.47	1.49	1.41	VA Recommendation
300%	1.51	1.57	1.50	VA Recommendation

Table 40 – Sensitivity Analyses – VA Operational Cost Increase

VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.29	1.06	0.94	VA Recommendation
50%	1.66	1.33	1.17	VA Recommendation

VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
100%	2.04	1.60	1.40	VA Recommendation
150%	2.41	1.87	1.63	VA Recommendation
200%	2.79	2.14	1.86	VA Recommendation
250%	3.16	2.42	2.09	VA Recommendation
300%	3.53	2.69	2.32	VA Recommendation

Table 41 – Sensitivity Analyses – Non-VA Operational Cost Increase

Non-VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.29	1.06	0.94	VA Recommendation
50%	1.52	1.23	1.08	VA Recommendation
100%	1.76	1.40	1.22	VA Recommendation
150%	1.99	1.57	1.37	VA Recommendation
200%	2.22	1.74	1.51	VA Recommendation
250%	2.46	1.91	1.66	VA Recommendation
300%	2.69	2.08	1.80	VA Recommendation

Appendix A – VISN 23 Minnesota Central: Capital and Operational Costs Detail

Table 42 – Capital Costs by COA

	Status Quo	Modernization	VA Recommendation
VAMC Ideal Square Footage	-	1,481,479	1,872,368
Build New GSF	-	986,501	1,386,939
Renovate In Place GSF	-	76,006	-
Matched Convert To GSF	-	73,697	-
Demolition GSF	-	715,650	865,353
Total Build New Cost	$0	($1,000,516,043)	($1,354,186,173)
Total Renovate In Place Cost	$0	($16,027,245)	$0
Total Matched Convert To Cost	$0	($32,740,878)	$0
Total Demolition Cost	$0	($28,903,373)	($16,441,707)
Total Lease Build-Out Cost	$0	($24,093,479)	($32,910,370)
Total New Lease Cost	$0	($70,318,371)	($96,051,065)
Total Existing Lease Cost	($16,759,050)	($16,759,009)	($16,759,050)
NRM Costs for Owned Facilities	($473,388,339)	($172,951,768)	($218,585,089)
FCA Correction Cost	($85,163,354)	N/A	N/A
Estimated Base Modernization Cost	($575,310,744)	($1,362,310,166)	($1,734,933,455)
Additional Common/Lobby Space Needed (GSF)	-	345,275	485,429
Cost of Additional Common/Lobby Space	$0	($307,405,364)	($432,186,575)
Additional Parking Cost	$0	($43,595,989)	($77,400,602)

	Status Quo	Modernization	VA Recommendation
Potential Land Acquisition Cost	$0	$0	($20,177,147)
Seismic Correction Cost	($345,246)	$0	$0
Non-Building FCA Correction Cost	($8,848,441)	($8,848,440)	$0
Activation Costs	$0	($168,086,249)	($191,529,980)
Estimated Additional Costs for Modernization	($9,193,686)	($527,936,042)	($721,294,305)
Cost Adjustment: In-Progress Construction	N/A	N/A	$0
Cost Adjustment: In-Progress Lease	N/A	N/A	$0
Estimated Facilities Costs (PV)	($584,504,430)	($1,890,246,208)	($2,456,227,759)

Table 43 – Operational Costs by COA

	Status Quo	Modernization	VA Recommendation
VA Direct	($3,311,476,687)	($3,311,476,687)	($3,311,476,687)
Fixed Direct	($511,534,238)	($511,534,238)	($511,534,238)
VA Specific Direct	($67,159,590)	($67,159,590)	($67,159,590)
Indirect	($1,577,661,273)	($1,577,661,273)	($1,577,661,273)
VA Specific Indirect	($203,934,703)	($203,934,703)	($203,934,703)
Research and Education	($1,167,479)	($1,167,479)	($1,167,479)
VA Overhead	($313,685,739)	($313,685,739)	($313,685,739)
VA Care Operational Cost Total (PV)	($5,986,619,708)	($5,986,619,708)	($5,986,619,708)
CC Direct	($2,599,263,931)	($2,599,263,931)	($2,599,263,931)
Delivery and Operations	($112,179,726)	($112,179,726)	($112,179,726)

	Status Quo	Modernization	VA Recommendation
Care Coordination	($122,687,797)	($122,687,797)	($122,687,797)
CC Overhead	($147,796,612)	($147,796,612)	($147,796,612)
Admin PMPM	($755,929,123)	($755,929,123)	($755,929,123)
Non-VA Care Operational Cost Total (PV)	($3,737,857,190)	($3,737,857,190)	($3,737,857,190)
Estimated Operational Costs (PV)	($9,724,476,898)	($9,724,476,898)	($9,724,476,898)

Appendix B – VISN 23 Minnesota Central: Benefits Analysis Key Data

Below are key data points used in the benefit analysis, summarized in the above Benefit Analysis section.

Demand and Supply

Inpatient

Table 44 – Demand and Supply Key Data Points for Scoring – Inpatient (IP)

Service Line	100% of FY29 In-house Bed Need	120% of FY29 In-house Bed Need	Operating Beds	Supply Adequacy (within 100-120% of in-house demand)
IP CLC	190	228	225	Adequately Supplied
IP Med/Surg	14	17	0	Under Supplied
IP MH	14	17	15	Adequately Supplied

Note: Community Living Center (CLC); Medicine (Med); Surgery (Surg); Mental Health (MH)

Source: Enrollee Healthcare Projection Model Base Year 2019

Outpatient

Table 45 – Demand and Supply Key Data Points for Scoring – Outpatient (OP)

Physician Supply Adequacy	Count of Specialties	Percentage
Under Supplied	27	100%

Note: VA supply in the Status Quo COA is quantitatively evaluated based on the data above. It is assumed the Modernization COA scales the capacity of existing facilities up or down to meet future Veteran in-house demand. Similar to the Modernization COA, it is assumed the VA Recommendation COA scales the capacity of existing and proposed facilities up or down to meet future Veteran in-house demand. However, the VA Recommendation COA may account for factors that demand projections do not consider that may shift the future balance of in-house and community workload, such as:

- Areas with unmet Veteran demand that may warrant a net new point of care
- Low-census inpatient acute programs that may pose risks to quality and training programs, potentially warranting a shift to community providers
- Community capacity factors that may warrant changes to VA capacity

Source: Office of Productivity, Efficiency and Staffing 2019 Capacity Report

Table 46 – New Facility Demand Guidelines

Facility or Service	Guideline
Inpatient Acute VAMCs	Greater than or equal to 35,000 overlapping enrollees
Inpatient CLC	Greater than or equal to 21,000 overlapping enrollees
Health Care Center	Greater than or equal to 34,000 overlapping enrollees
MS CBOC	Greater than or equal to 4,300 non-overlapping enrollees
CBOC	Greater than or equal to 2,500 non-overlapping enrollees

Note: The above guidelines are used to determine whether a new (not replacement) point of care or service proposed in the VA recommendation had adequate demand.

Access

Table 47 – Access Key Data Points for Scoring

COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of VA-provided OP Mental Health	49.8%	49.8%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of VA-provided OP Primary Care	49.8%	49.8%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of VA-provided OP Specialty Care	79.9%	79.9%	Maintained within 1%

COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	97.7%	97.7%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.6%	99.6%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Mental Health	49.8%	49.8%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Primary Care	49.8%	49.8%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of VA-provided OP Specialty Care	79.9%	79.9%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	97.7%	97.7%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.6%	99.6%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Mental Health	49.8%	61.3%	Increased 1% or more

COA	Measure	Current	Future	Result
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Primary Care	49.8%	63.5%	Increased 1% or more
VA Recommendation	% of enrollees within 60 minutes of VA-provided OP Specialty Care	79.9%	80.7%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	97.7%	97.7%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.6%	99.6%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%

Note: the CBA Access domain score is based on enrollee proximity to VA-provided care only rather than the full high-performing integrated delivery network (HPIDN) (inclusive of VA, Community Care Network, and non-Community Care Network providers meeting quality criteria). While a COA may have a reduced access score within the CBA, the Section 203 Criteria analysis shows that the VA Recommendation COA maintains or improves access to all service lines in the future HPIDN. The table above shows the results for enrollee proximity to the full HPIDN as well as to VA-provided care in the market.

Source: Enrollee data from the FY19 Geocoded Enrollee File. Existing VA facility location data from VAST. Commercial provider location data from Definitive Healthcare.

Quality

Main Patient Care Facility Construction Date

Table 48 – Quality Key Data Points for Scoring – Age

Facility	Main Patient Care Facility Construction Date	Built Pre-1970?
(V23) (656) St. Cloud-Minnesota	1923	Yes

Source: Main patient care facility construction and renovation dates from CAI Buildings and FCA Condition Gaps Reports 9-14-2020

Inpatient Acute Demand

Table 49 – Quality Key Data Points for Scoring – Inpatient Acute Demand

Facility	Service	Demand Guideline	Meets or Exceeds Guideline?	VA Recommendation
(V23) (656) St. Cloud	IP Med	20 ADC	No Service	N/A
(V23) (656) St. Cloud	IP Surg	1,600 Cases	No Service	N/A
(V23) (656) St. Cloud	IP MH	8 ADC	Yes	Replace

Note: The Status Quo and Modernization COAs are assumed to maintain all current facilities and services. The VA Recommendation COA proposes maintaining, partnering, and divesting of services at each facility, shown in the last column titled "VA Recommendation". To score a 3, the VA recommendation must partner or divest of all low-demand services.

Source: FY 2029 average daily census for inpatient services is based on Enrollee Healthcare Projection Model Base Year 2019. 2019 Total Surgical Cases is from the VA National Surgery Office.

Facilities and Sustainability

Table 50 – Facilities and Sustainability Key Data Points for Scoring

Facility	Main Patient Care Facility Construction Date	Most Recent Main Patient Care Facility Renovation Date	Exceeds Useful Life?
(V23) (656) St. Cloud-Minnesota	1923	1997	Yes

Note: Exceeding useful life is defined as 1) When a main patient care facility was built before 1970 it has exceeded its useful life, even if it has undergone major renovation in the last 40 years. 2) When a main patient care facility was built after 1970 but is still more than 40 years old (built on or after 1971 and before 1989), it must have undergone major renovation within the last 40 years to not exceed its useful life. 3) When a main patient care facility was built in or after 1989, it has not exceeded its useful life.

Source: From CAI Buildings and FCA Condition Gaps Reports 9-14-2020

Table 51 – Key Data Points for Scoring - Recruitment and Retention

Facility	Expands VA's Ability to Recruit/Retain?
N/A	N/A

Mission

Table 52 – Mission Key Data Points for Scoring

The Status Quo and Modernization COAs are assumed to have no impact on VA's statutory missions. The impact of the VA Recommendation on VA's statutory missions is shown in the table below:

Facility	Training Impact	Research Impact	4th Mission Impact	Market Plan Includes New Facilities/Services To Increase Training/Research Opportunities
(V23) (656) St. Cloud	No impact on training	No Research Program	No PRC Designation	Increases Research Opportunities

VISN 23 Iowa East

The recommendations for modernization and realignment of VHA infrastructure submitted by the Secretary of the Department of Veterans Affairs to the Asset and Infrastructure Review (AIR) Commission are focused on allowing VA to provide accessible, timely, and high-quality health care for Veterans now and in the future. To inform the recommendations, VA conducted a Cost Benefit Analysis (CBA) that examines the cost-efficiency and benefits to Veterans of various courses of action (COAs) within each market. The CBA compares the costs and benefits associated with maintaining the current facilities, modernizing the current facilities, or strategically realigning and modernizing facilities in each market to inform the identification of a preferred COA.

The CBA aligns with requirements outlined in Section 1703C of Title 38, United States Code (U.S.C.), as added by Section 203 of the VA MISSION Act of 2018.

> *VA MISSION Act, Section 203(2)(F)*
>
> *"In making recommendations under this subsection, the Secretary shall consider…the extent and timing of potential costs and savings, including the number of years such costs or savings will be incurred, beginning with the date of completion of the proposed recommendation."*

This CBA summary document defines the COAs, provides a brief overview of the methodology, and outlines the results of the CBA and the associated sensitivity analysis.

Overview of COAs and Methodology

The Cost Benefit Analysis (CBA) reviews, analyzes, and compares the costs and benefits of three distinct courses of action (COA):

- maintaining VA's current facilities assuming no changes or additional modernization to current facilities, programs, and infrastructure (COA Name: Status Quo)
- modernizing the current facilities without strategically realigning facilities (COA Name: Modernization)
- strategically realigning and modernizing facilities (COA Name: VA Recommendation to the AIR Commission)

To evaluate these courses of action, VA examined the combined cost and benefits of each COA for each market. The CBA was conducted at the market level, rather than at the facility level, to allow for a holistic assessment of a COA's impact that considers optimization of the market across all health care facilities. The financial costs were assessed using a Present Value (PV) analysis while the non-financial benefits were assessed using a Benefits Analysis Scoring process. Ultimately, the CBA results in a Cost-Benefit Index – a simple metric by which to compare the combined cost and non-financial benefits associated with each COA. The CBI equals the total life-cycle cost (PV) of each COA in PV dollars, divided by the Benefits Analysis score for that COA's non-financial benefits normalized to the billions place. The COA with the lowest CBI score is the preferred COA.

Summary of Results

The VA Recommendation COA is the leading COA analyzed in the VISN 23 Iowa East Market due to its leading Cost Benefit Index (CBI) score. The CBI score for the VA Recommendation COA (0.79) is 37.0% lower than the Status Quo COA (1.26) and 20.9% lower than the Modernization COA (1.00).

The VA Recommendation COA is $1.0 B (10.3%) more expensive than the Status Quo COA and $71.0 M (0.6%) more expensive than the Modernization COA. While the VA Recommendation COA increases cost compared to the Status Quo and Modernization COAs, it also increases benefits as seen by a 14-point benefits score compared to 8 for the Status Quo COA and 11 for the Modernization COA.

The tables below detail the present values, benefit scores, and CBIs for each COA.

Table 53 – CBI Scores by COA

	Status Quo	Modernization	VA Recommendation
COA PV ($)	($10,079,155,043)	($11,044,357,462)	($11,115,314,753)
Benefit Analysis Score	8	11	14
CBI (Normalized in $Billions)	1.26	1.00	0.79
CBI % Change vs. Status Quo	N/A	-20.3%	-37.0%
CBI % Change vs. Modernization	N/A	N/A	-20.9%

Table 54 – Cost Analysis Cost Variance by COA

Cost Variance	Status Quo	Modernization	VA Recommendation
Capital Cost Variance vs. Status Quo	N/A	($965,202,419)	($1,036,159,710)
Operational Cost Variance vs. Status Quo	N/A	$0	$0
Estimated Total Cost Variance vs. Status Quo	N/A	($965,202,419)	($1,036,159,710)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	($70,957,290)

Note: Operational unit costs were provided at the parent facility level not at the facility level. Therefore, the analysis does not estimate the changes in operational costs stemming from new, expanded, or removed points of care (POC). The analysis only shows changes to operational costs when a service line is shifted, at the parent facility level, from VA care to non-VA care.

Table 55 – Benefit Analysis Scores by COA

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3
Access	2	2	2
Quality	2	3	3
Facilities and Sustainability	1	2	3
Mission	2	2	3
Total Benefit Score	**8**	**11**	**14**

VA Recommendation

The VA Recommendation for the VISN 23 Iowa East Market COA is detailed below.

- Modernize and realign the Iowa City VAMC by establishing a strategic collaboration to add CLC services. If unable to enter into a strategic collaboration, utilize community providers to provide the service
- Modernize by establishing a new stand-alone RRTP in the vicinity of Iowa City, Iowa

Cost Analysis

The Cost Analysis highlighted the estimated Present Value (PV) of each COA for the VISN 23 Iowa East Market across a 30-year horizon. The cost of the VA Recommendation COA ($11.1 B) was higher than the Status Quo COA ($10.1 B) and the Modernization COA ($11.0 B).

For the VISN 23 Iowa East Market, the VA Recommendation COA is $1.0 B (10.3%) more expensive than the Status Quo COA and $71.0 M (0.6%) more expensive than the Modernization COA. The cost difference between the VA Recommendation COA and Status Quo COA can be attributed to new facilities, closing or modernizing existing facilities, and scaling capacity of existing facilities up or down to meet future Veteran in-house demand to accommodate changes in demand.

The table below outlines the costs associated with each of the COAs. For more detail refer to Appendix A – VISN 23 Iowa East: Capital and Operational Costs Detail.

Table 56 – Total Cost Summary by COA

	Status Quo	Modernization	VA Recommendation
Total Costs (PV)	($10,079,155,043)	($11,044,357,462)	($11,115,314,753)
Capital Cost Variance vs. Status Quo	N/A	($965,202,419)	($1,036,159,710)

	Status Quo	Modernization	VA Recommendation
Operational Cost Variance vs. Status Quo	N/A	$0	$0
Non-VA Care Operational Cost Variance	N/A	$0	$0
VA Care Operational Cost Variance	N/A	$0	$0
Estimated Total Cost Variance vs. Status Quo	N/A	($965,202,419)	($1,036,159,710)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	($70,957,290)

Benefit Analysis

This section describes the non-financial benefit analysis results for the VISN 23 Iowa East Market across five domains: Demand and Supply, Access, Quality, Facilities and Sustainability, and Mission. The results indicate that the VA Recommendation COA provides the most benefit (greatest Total Benefit Score) in comparison to the Status Quo and Modernization COAs.

Table 57 – Benefit Analysis Scores by COA

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3
Access	2	2	2
Quality	2	3	3
Facilities and Sustainability	1	2	3
Mission	2	2	3
Total Benefit Score	**8**	**11**	**14**

The scoring and rationale within each domain are described in the following sections. The data underlying the analysis is provided in Appendix B – VISN 23 Iowa East: Benefits Analysis Key Data. Additional information regarding the scoring methodology is provided in the CBA Methodology.

Demand and Supply

Within the Demand and Supply domain, the CBA considers how each COA impacts VA's ability to meet Veteran demand in the future. Each COA is assessed on two benefit components: (1) the ability to balance demand and supply; (2) the changes to facility placement or service offerings that improve VA's ability to meet future demand.

The table below shows the scores for VISN 23 Iowa East for this domain.

Table 58 – Demand and Supply Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3

Status Quo: The COA received a score of 1 because at least one inpatient service line was over/under supplied, or more than 50% of specialties were inadequately supplied when compared to future Veteran in-house demand. Additionally, no changes to facilities or services were introduced that improve VA's ability to meet the future Veteran enrollee population (e.g., relocation or establishment of facilities in areas with greater Veteran demand, expansion of services).

Modernization: The COA received a score of 2 because, while Modernization right-sizes services to meet future Veteran in-house demand, the COA does not include changes to facilities or services that improve VA's ability to meet the future Veteran enrollee population (e.g., relocation or establishment of facilities in areas with greater Veteran demand, addition of new services).

VA Recommendation: The COA received a score of 3 because it right-sizes services to meet future Veteran enrollee demand and includes changes to facilities or services that improve VA's ability to meet future Veteran enrollee demand based on guidelines established in the CBA methodology. These changes include the following:

- Establishes a new Iowa City RRTP to provide inpatient residential rehabilitative services; 19,825 enrollees live within 60 minutes of the proposed facility
- Establishes the new Iowa City community living center partnership

Access

Within the Access domain, the CBA considers how each COA impacts Veteran access to care in the future. Each COA is assessed on the change in enrollee proximity to VA-provided primary care, specialty care, and outpatient mental health care.

The table below shows the CBA access scores for VISN 23 Iowa East for this domain.

Table 59 – Access Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Access	2	2	2

Note: the CBA Access domain score is based on enrollee proximity to VA-provided care only rather than the full high-performing integrated delivery network (inclusive of VA, Community Care Network providers, and non-Community Care Network providers meeting quality criteria). While a COA may have a reduced access score within

the CBA, the Section 203 Criteria analysis shows that the VA Recommendation COA maintains or improves access to all service lines in the future high-performing integrated delivery network (HPIDN).

Status Quo: The COA received a score of 2 because access is maintained within 1% for VA-provided primary care, specialty care, and outpatient mental health care.

Modernization: The COA received a score of 2 because access is maintained within 1% for VA-provided primary care, specialty care, and outpatient mental health care.

VA Recommendation: The COA received a score of 2 because access to VA-provided primary care was maintained within 1%, specialty care was maintained within 1%, and outpatient mental health care was maintained within 1%.

Quality

Within the Quality domain, the CBA considers how each COA impacts the quality of Veteran care in the future. Each COA is assessed based on two benefit components: (1) the ability of the main patient care facilities to support modern healthcare; (2) the ability of demand to support clinical competency.

The table below shows the scores for VISN 23 Iowa East for this domain.

Table 60 – Quality Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Quality	2	3	3

Status Quo: The COA received a score of 2 for two reasons. First, the COA includes main patient care facilities that were built prior to the emergence of modern healthcare design principles and specific standards to support modern medicine (e.g., floor-to-floor heights, corridor widths, columns spacing, and utility infrastructure requirements). Second, the COA includes facilities with projected future demand at or above VA planning guidelines for maintaining programs. VA's planning guidelines reflect that sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery.

Modernization: The COA received a score of 3 for two reasons. First, the COA contains only modern facilities that meet modern health care design standards. Modern facilities support current standards of care (e.g., PACT-enabled environment in the outpatient setting, single patient rooms in the inpatient setting) and utilization of technologies. They can also improve the experience for both Veterans and staff. Second, the COA includes facilities with projected future demand at or above VA planning guidelines for maintaining programs. VA's planning guidelines reflect that sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery.

VA Recommendation: The COA received a score of 3 for two reasons. First, the COA contains only modern facilities that meet modern health care design standards. Modern facilities support current standards of care (e.g., PACT-enabled environment in the outpatient setting, single patient rooms in the inpatient setting) and utilization of technologies. They can also improve the experience for both Veterans and staff. Second, the COA includes facilities with projected future demand at or above VA planning guidelines for maintaining programs. VA's planning guidelines reflect that sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery.

Facilities and Sustainability

Within the Facilities and Sustainability domain, the CBA considers how each COA impacts the sustainability of Veteran care in the future. Each COA is assessed based on two benefit components: (1) the useful life of the main patient care facilities; (2) changes that strengthen VA's ability to recruit and retain providers.

The table below shows the scores for VISN 23 Iowa East for this domain.

Table 61 – Facilities and Sustainability Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Facilities and Sustainability	1	2	3

Note: The American Hospital Association estimates that a hospital's useful life, a measure which predicts the productive period of a typical capital asset before it becomes obsolete or needs replacement, is currently 40 years.

Status Quo: The COA received a score of 1 for two reasons. First, the COA includes at least one main patient care facility that exceeds its useful life as defined by the American Hospital Association, indicating it may be obsolete or need replacement. Second, the COA does not include changes that strengthen VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities).

Modernization: The COA received a score of 2 for two reasons. First, the COA replaces all main patient care facilities that have exceeded their useful life with modern facilities that can be sustained over the coming years. Second, while the COA includes modernized infrastructure, which may attract providers, it does not include additional changes to support VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities).

VA Recommendation: The COA received a score of 3 for two reasons. First, the COA replaces all main patient care facilities that have exceeded their useful life with modern facilities that can be sustained over the coming years. Second, in addition to modernized infrastructure which may attract providers, it also includes additional changes to support VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities). The COA includes the following actions to support VA's ability to recruit or retain providers:

- Establishes the new Iowa City community living center partnership

Mission

Within the Mission domain, the CBA considers how each COA impacts VA's ability to support its statutory missions of Education, Research, and Emergency Preparedness in the future. Each COA is assessed on three benefit components: (1) the impact on training programs; (2) the impact on research programs; (3) the impact on emergency preparedness.

A COA's overall score in the Mission domain is determined by the rounded average (unweighted) of its component (e.g., Education, Research, Emergency Preparedness) scores.

The table below shows the scores for VISN 23 Iowa East for this domain.

Table 62 – Mission Scoring Summary

Subdomain	Status Quo	Modernization	VA Recommendation
Education	2	2	3
Research	2	2	3
Emergency Preparedness	2	2	2
Overall Mission Score (Rounded Average)	**2**	**2**	**3**

Status Quo: The COA received a score of 2 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 2 because it does not impact inpatient acute service lines and thus maintains existing training programs.
- **Research:** The COA received a score of 2 because all existing facilities with research programs are maintained.
- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

Modernization: The COA received a score of 2 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 2 because it does not impact inpatient acute service lines and thus maintains existing training programs.
- **Research:** The COA received a score of 2 because all existing facilities with research programs are maintained.
- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

VA Recommendation: The COA received a score of 3 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 3 because inpatient acute services remain VA-delivered and thus the COA maintains existing training programs. Additionally, the COA includes new (not replacement) infrastructure that creates new opportunities for training within the market.
- **Research:** The COA received a score of 3 because it maintains all research programs and builds new (not replacement) infrastructure to support additional research space.
- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

Sensitivity Analysis

A sensitivity analyses study shows how various sources of uncertainty in a mathematical model contribute to the model's overall uncertainty. The market is considered sensitive to a scenario when the

VA Recommendation is no longer the leading COA due to changes in benefit scores, VA capital costs, VA operational costs, or non-VA operational costs.

The table below outlines the sensitivity analysis scenarios completed.

Table 63 – Sensitivity Analysis Scenarios

Sensitivity Analysis Scenarios
Increase Benefit Scores for Status Quo and Modernization in increments of one from 1 to 3 points
Increase VA Capital Costs in 50% increments from 0% to 300%
Increase VA Operational Costs in 50% increments from 0% to 300%
Increase Non-VA Operational Costs in 50% increments from 0% to 300%

Sensitivity Analysis Results Summary

In the VISN 23 Iowa East Market, one scenario changed the outcome of the CBA:

- Increasing the Modernization benefits score by three points

Sensitivity Analysis Full Results

The below tables show the results across all sensitivity analysis scenarios.

Table 64 – Sensitivity Analyses – Benefit Score Increase

Status Quo and Modernization Benefit Score Change	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
+0	1.26	1.00	0.79	VA Recommendation
+1	1.12	0.92	0.79	VA Recommendation
+2	1.01	0.85	0.79	VA Recommendation
+3	0.92	0.79	0.79	Modernization

Table 65 – Sensitivity Analyses – VA Capital Cost Increase

VA Capital Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.26	1.00	0.79	VA Recommendation
50%	1.29	1.07	0.85	VA Recommendation
100%	1.33	1.14	0.91	VA Recommendation
150%	1.36	1.21	0.96	VA Recommendation
200%	1.40	1.28	1.02	VA Recommendation
250%	1.43	1.35	1.08	VA Recommendation
300%	1.47	1.42	1.13	VA Recommendation

Table 66 – Sensitivity Analyses – VA Operational Cost Increase

VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.26	1.00	0.79	VA Recommendation
50%	1.67	1.30	1.03	VA Recommendation
100%	2.07	1.59	1.26	VA Recommendation
150%	2.48	1.89	1.49	VA Recommendation
200%	2.88	2.18	1.72	VA Recommendation
250%	3.29	2.48	1.95	VA Recommendation
300%	3.69	2.77	2.18	VA Recommendation

Table 67 – Sensitivity Analyses – Non-VA Operational Cost Increase

Non-VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.26	1.00	0.79	VA Recommendation
50%	1.45	1.14	0.90	VA Recommendation
100%	1.64	1.28	1.01	VA Recommendation
150%	1.83	1.42	1.12	VA Recommendation
200%	2.02	1.56	1.23	VA Recommendation
250%	2.21	1.69	1.34	VA Recommendation
300%	2.40	1.83	1.45	VA Recommendation

Appendix A – VISN 23 Iowa East: Capital and Operational Costs Detail

Table 68 – Capital Costs by COA

	Status Quo	Modernization	VA Recommendation
VAMC Ideal Square Footage	-	933,840	941,935
Build New GSF	-	575,998	581,994
Renovate In Place GSF	-	102,205	101,433
Matched Convert To GSF	-	54,038	54,810
Demolition GSF	-	568,007	568,007
Total Build New Cost	$0	($558,334,926)	($564,752,889)
Total Renovate In Place Cost	$0	($7,692,412)	($7,692,412)
Total Matched Convert To Cost	$0	($21,698,729)	($22,008,723)
Total Demolition Cost	$0	($20,734,618)	($20,734,618)
Total Lease Build-Out Cost	$0	($72,962,215)	($87,288,000)
Total New Lease Cost	$0	($224,784,607)	($268,936,870)
Total Existing Lease Cost	($109,251,063)	($109,250,911)	($109,251,063)
NRM Costs for Owned Facilities	($372,041,910)	($109,018,955)	($109,963,940)
FCA Correction Cost	($64,707,641)	N/A	N/A
Estimated Base Modernization Cost	($546,000,614)	($1,124,477,373)	($1,190,628,514)
Additional Common/Lobby Space Needed (GSF)	-	201,599	203,698
Cost of Additional Common/Lobby Space	$0	($162,229,340)	($163,918,108)
Additional Parking Cost	$0	($24,667,586)	($24,987,945)

	Status Quo	Modernization	VA Recommendation
Potential Land Acquisition Cost	$0	($6,493,897)	($6,577,987)
Seismic Correction Cost	$0	$0	$0
Non-Building FCA Correction Cost	($3,854,925)	($3,854,924)	($3,854,925)
Activation Costs	$0	($193,334,837)	($196,047,769)
Estimated Additional Costs for Modernization	($3,854,925)	($390,580,584)	($395,386,734)
Cost Adjustment: In-Progress Construction	N/A	N/A	$0
Cost Adjustment: In-Progress Lease	N/A	N/A	$0
Estimated Facilities Costs (PV)	($549,855,538)	($1,515,057,957)	($1,586,015,248)

Table 69 – Operational Costs by COA

	Status Quo	Modernization	VA Recommendation
VA Direct	($3,532,426,431)	($3,532,426,431)	($3,532,426,431)
Fixed Direct	($620,257,214)	($620,257,214)	($620,257,214)
VA Specific Direct	($110,865,549)	($110,865,549)	($110,865,549)
Indirect	($1,679,272,376)	($1,679,272,376)	($1,679,272,376)
VA Specific Indirect	($213,532,043)	($213,532,043)	($213,532,043)
Research and Education	($5,055,272)	($5,055,272)	($5,055,272)
VA Overhead	($327,688,588)	($327,688,588)	($327,688,588)
VA Care Operational Cost Total (PV)	($6,489,097,474)	($6,489,097,474)	($6,489,097,474)
CC Direct	($2,162,157,451)	($2,162,157,451)	($2,162,157,451)
Delivery and Operations	($96,249,183)	($96,249,183)	($96,249,183)

	Status Quo	Modernization	VA Recommendation
Care Coordination	($96,699,750)	($96,699,750)	($96,699,750)
CC Overhead	($127,930,351)	($127,930,351)	($127,930,351)
Admin PMPM	($557,165,296)	($557,165,296)	($557,165,296)
Non-VA Care Operational Cost Total (PV)	($3,040,202,031)	($3,040,202,031)	($3,040,202,031)
Estimated Operational Costs (PV)	($9,529,299,504)	($9,529,299,504)	($9,529,299,504)

Appendix B – VISN 23 Iowa East: Benefits Analysis Key Data

Below are key data points used in the benefit analysis, summarized in the above Benefit Analysis section.

Demand and Supply

Inpatient

Table 70 – Demand and Supply Key Data Points for Scoring – Inpatient (IP)

Service Line	100% of FY29 In-house Bed Need	120% of FY29 In-house Bed Need	Operating Beds	Supply Adequacy (within 100-120% of in-house demand)
IP CLC	22	26	0	Under Supplied
IP Med/Surg	43	52	68	Over Supplied
IP MH	17	20	15	Under Supplied

Note: Community Living Center (CLC); Medicine (Med); Surgery (Surg); Mental Health (MH)

Source: Enrollee Healthcare Projection Model Base Year 2019

Outpatient

Table 71 – Demand and Supply Key Data Points for Scoring – Outpatient (OP)

Physician Supply Adequacy	Count of Specialties	Percentage
Adequately Supplied	14	52%
Under Supplied	13	48%

Note: VA supply in the Status Quo COA is quantitatively evaluated based on the data above. It is assumed the Modernization COA scales the capacity of existing facilities up or down to meet future Veteran in-house demand. Similar to the Modernization COA, it is assumed the VA Recommendation COA scales the capacity of existing and proposed facilities up or down to meet future Veteran in-house demand. However, the VA Recommendation COA may account for factors that demand projections do not consider that may shift the future balance of in-house and community workload, such as:

- Areas with unmet Veteran demand that may warrant a net new point of care
- Low-census inpatient acute programs that may pose risks to quality and training programs, potentially warranting a shift to community providers
- Community capacity factors that may warrant changes to VA capacity

Source: Office of Productivity, Efficiency and Staffing 2019 Capacity Report

Table 72 – New Facility Demand Guidelines

Facility or Service	Guideline
Inpatient Acute VAMCs	Greater than or equal to 35,000 overlapping enrollees
Inpatient CLC	Greater than or equal to 21,000 overlapping enrollees
Health Care Center	Greater than or equal to 34,000 overlapping enrollees
MS CBOC	Greater than or equal to 4,300 non-overlapping enrollees
CBOC	Greater than or equal to 2,500 non-overlapping enrollees

Note: The above guidelines are used to determine whether a new (not replacement) point of care or service proposed in the VA recommendation had adequate demand.

Access

Table 73 – Access Key Data Points for Scoring

COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of VA-provided OP Mental Health	68.7%	68.7%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of VA-provided OP Primary Care	72.6%	72.6%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of VA-provided OP Specialty Care	89.4%	89.4%	Maintained within 1%

COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	97.6%	97.6%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.9%	99.9%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Mental Health	68.7%	68.7%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Primary Care	72.6%	72.6%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of VA-provided OP Specialty Care	89.4%	89.4%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	97.6%	97.6%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.9%	99.9%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Mental Health	68.7%	68.7%	Maintained within 1%

COA	Measure	Current	Future	Result
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Primary Care	72.6%	72.6%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of VA-provided OP Specialty Care	89.4%	89.4%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	97.6%	97.9%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.9%	100.0%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%

Note: the CBA Access domain score is based on enrollee proximity to VA-provided care only rather than the full high-performing integrated delivery network (HPIDN) (inclusive of VA, Community Care Network, and non-Community Care Network providers meeting quality criteria). While a COA may have a reduced access score within the CBA, the Section 203 Criteria analysis shows that the VA Recommendation COA maintains or improves access to all service lines in the future HPIDN. The table above shows the results for enrollee proximity to the full HPIDN as well as to VA-provided care in the market.

Source: Enrollee data from the FY19 Geocoded Enrollee File. Existing VA facility location data from VAST. Commercial provider location data from Definitive Healthcare.

Quality

Main Patient Care Facility Construction Date

Table 74 – Quality Key Data Points for Scoring – Age

Facility	Main Patient Care Facility Construction Date	Built Pre-1970?
(V23) (636A8) Iowa City-Iowa	1951	Yes

Source: Main patient care facility construction and renovation dates from CAI Buildings and FCA Condition Gaps Reports 9-14-2020

Inpatient Acute Demand

Table 75 – Quality Key Data Points for Scoring – Inpatient Acute Demand

Facility	Service	Demand Guideline	Meets or Exceeds Guideline?	VA Recommendation
(V23) (636A8) Iowa City	IP Med	20 ADC	Yes	Maintain
(V23) (636A8) Iowa City	IP Surg	1,600 Cases	Yes	Maintain
(V23) (636A8) Iowa City	IP MH	8 ADC	Yes	Maintain

Note: The Status Quo and Modernization COAs are assumed to maintain all current facilities and services. The VA Recommendation COA proposes maintaining, partnering, and divesting of services at each facility, shown in the last column titled "VA Recommendation". To score a 3, the VA recommendation must partner or divest of all low-demand services.

Source: FY 2029 average daily census for inpatient services is based on Enrollee Healthcare Projection Model Base Year 2019. 2019 Total Surgical Cases is from the VA National Surgery Office.

Facilities and Sustainability

Table 76 – Facilities and Sustainability Key Data Points for Scoring

Facility	Main Patient Care Facility Construction Date	Most Recent Main Patient Care Facility Renovation Date	Exceeds Useful Life?
(V23) (636A8) Iowa City-Iowa	1951	1989	Yes

Note: Exceeding useful life is defined as 1) When a main patient care facility was built before 1970 it has exceeded its useful life, even if it has undergone major renovation in the last 40 years. 2) When a main patient care facility was built after 1970 but is still more than 40 years old (built on or after 1971 and before 1989), it must have undergone major renovation within the last 40 years to not exceed its useful life. 3) When a main patient care facility was built in or after 1989, it has not exceeded its useful life.

Source: From CAI Buildings and FCA Condition Gaps Reports 9-14-2020

Table 77 – Key Data Points for Scoring - Recruitment and Retention

Facility	Expands VA's Ability to Recruit/Retain?
(V23) (636XX) Iowa City CLC	Yes

Mission

Table 78 – Mission Key Data Points for Scoring

The Status Quo and Modernization COAs are assumed to have no impact on VA's statutory missions. The impact of the VA Recommendation on VA's statutory missions is shown in the table below:

Facility	Training Impact	Research Impact	4th Mission Impact	Market Plan Includes New Facilities/Services To Increase Training/Research Opportunities
(V23) (636A8) Iowa City	No impact on training	Maintains or Has Plan to Transition	No PRC Designation	Increases Research Opportunities, Increases Training Opportunities

VISN 23 Iowa Central

The recommendations for modernization and realignment of VHA infrastructure submitted by the Secretary of the Department of Veterans Affairs to the Asset and Infrastructure Review (AIR) Commission are focused on allowing VA to provide accessible, timely, and high-quality health care for Veterans now and in the future. To inform the recommendations, VA conducted a Cost Benefit Analysis (CBA) that examines the cost-efficiency and benefits to Veterans of various courses of action (COAs) within each market. The CBA compares the costs and benefits associated with maintaining the current facilities, modernizing the current facilities, or strategically realigning and modernizing facilities in each market to inform the identification of a preferred COA.

The CBA aligns with requirements outlined in Section 1703C of Title 38, United States Code (U.S.C.), as added by Section 203 of the VA MISSION Act of 2018.

> *VA MISSION Act, Section 203(2)(F)*
>
> *"In making recommendations under this subsection, the Secretary shall consider…the extent and timing of potential costs and savings, including the number of years such costs or savings will be incurred, beginning with the date of completion of the proposed recommendation."*

This CBA summary document defines the COAs, provides a brief overview of the methodology, and outlines the results of the CBA and the associated sensitivity analysis.

Overview of COAs and Methodology

The Cost Benefit Analysis (CBA) reviews, analyzes, and compares the costs and benefits of three distinct courses of action (COA):

- maintaining VA's current facilities assuming no changes or additional modernization to current facilities, programs, and infrastructure (COA Name: Status Quo)
- modernizing the current facilities without strategically realigning facilities (COA Name: Modernization)
- strategically realigning and modernizing facilities (COA Name: VA Recommendation to the AIR Commission)

To evaluate these courses of action, VA examined the combined cost and benefits of each COA for each market. The CBA was conducted at the market level, rather than at the facility level, to allow for a holistic assessment of a COA's impact that considers optimization of the market across all health care facilities. The financial costs were assessed using a Present Value (PV) analysis while the non-financial benefits were assessed using a Benefits Analysis Scoring process. Ultimately, the CBA results in a Cost-Benefit Index – a simple metric by which to compare the combined cost and non-financial benefits associated with each COA. The CBI equals the total life-cycle cost (PV) of each COA in PV dollars, divided by the Benefits Analysis score for that COA's non-financial benefits normalized to the billions place. The COA with the lowest CBI score is the preferred COA.

Summary of Results

The VA Recommendation COA is the leading COA analyzed in the VISN 23 Iowa Central Market due to its leading Cost Benefit Index (CBI) score. The CBI score for the VA Recommendation COA (0.72) is 36.9% lower than the Status Quo COA (1.15) and 20.8% lower than the Modernization COA (0.92).

The VA Recommendation COA is $654.8 M (8.1%) more expensive than the Status Quo COA and $457.4 M (5.0%) less expensive than the Modernization COA. While the VA Recommendation COA increases cost compared to the Status Quo COA and decreases costs compared to the Modernization COA, it also increases benefits as seen by a 12-point benefits score compared to 7 for the Status Quo COA and 10 for the Modernization COA.

The tables below detail the present values, benefit scores, and CBIs for each COA.

Table 79 – CBI Scores by COA

	Status Quo	Modernization	VA Recommendation
COA PV ($)	($8,042,940,911)	($9,155,146,101)	($8,697,756,456)
Benefit Analysis Score	7	10	12
CBI (Normalized in $Billions)	1.15	0.92	0.72
CBI % Change vs. Status Quo	N/A	-20.3%	-36.9%
CBI % Change vs. Modernization	N/A	N/A	-20.8%

Table 80 – Cost Analysis Cost Variance by COA

Cost Variance	Status Quo	Modernization	VA Recommendation
Capital Cost Variance vs. Status Quo	N/A	($1,112,205,189)	($1,116,148,537)
Operational Cost Variance vs. Status Quo	N/A	$0	$461,332,992
Estimated Total Cost Variance vs. Status Quo	N/A	($1,112,205,189)	($654,815,544)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	$457,389,645

Note: The American Hospital Association estimates that a hospital's useful life, a measure which predicts the productive period of a typical capital asset before it becomes obsolete or needs replacement, is currently 40 years.

Table 81 – Benefit Analysis Scores by COA

Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	2
Access	2	2	3
Quality	1	2	2
Facilities and Sustainability	1	2	2
Mission	2	2	3
Total Benefit Score	**7**	**10**	**12**

VA Recommendation

The VA Recommendation for the VISN 23 Iowa Central Market COA is detailed below.

- Modernize and realign outpatient facilities in the market by establishing a new CBOC in the vicinity of Ames, Iowa

Cost Analysis

The Cost Analysis highlighted the estimated Present Value (PV) of each COA for the VISN 23 Iowa Central Market across a 30-year horizon. The cost of the VA Recommendation COA ($8.7 B) was higher than the Status Quo COA ($8.0 B) and lower than the Modernization COA ($9.2 B).

For the VISN 23 Iowa Central Market, the VA Recommendation COA is $654.8 M (8.1%) more expensive than the Status Quo COA and $457.4 M (5.0%) less expensive than the Modernization COA. The cost difference between the VA Recommendation COA and Status Quo COA can be attributed to new facilities, closing or modernizing existing facilities, and scaling capacity of existing facilities up or down to meet future Veteran in-house demand to accommodate changes in demand.

The table below outlines the costs associated with each of the COAs. For more detail refer to Appendix A – VISN 23 Iowa Central: Capital and Operational Costs Detail.

Table 82 – Total Cost Summary by COA

	Status Quo	Modernization	VA Recommendation
Total Costs (PV)	($8,042,940,911)	($9,155,146,101)	($8,697,756,456)
Capital Cost Variance vs. Status Quo	N/A	($1,112,205,189)	($1,116,148,537)
Operational Cost Variance vs. Status Quo	N/A	$0	$461,332,992

	Status Quo	Modernization	VA Recommendation
Non-VA Care Operational Cost Variance	N/A	$0	($431,595,607)
VA Care Operational Cost Variance	N/A	$0	$892,928,599
Estimated Total Cost Variance vs. Status Quo	N/A	($1,112,205,189)	($654,815,544)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	$457,389,645

Benefit Analysis

This section describes the non-financial benefit analysis results for the VISN 23 Iowa Central Market across five domains: Demand and Supply, Access, Quality, Facilities and Sustainability, and Mission. The results indicate that the VA Recommendation COA provides the most benefit (greatest Total Benefit Score) in comparison to the Status Quo and Modernization COAs.

Table 83 – Benefit Analysis Scores by COA

Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	2
Access	2	2	3
Quality	1	2	2
Facilities and Sustainability	1	2	2
Mission	2	2	3
Total Benefit Score	**7**	**10**	**12**

The scoring and rationale within each domain are described in the following sections. The data underlying the analysis is provided in Appendix B – VISN 23 Iowa Central: Benefits Analysis Key Data. Additional information regarding the scoring methodology is provided in the CBA Methodology.

Demand and Supply

Within the Demand and Supply domain, the CBA considers how each COA impacts VA's ability to meet Veteran demand in the future. Each COA is assessed on two benefit components: (1) the ability to

balance demand and supply; (2) the changes to facility placement or service offerings that improve VA's ability to meet future demand.

The table below shows the scores for VISN 23 Iowa Central for this domain.

Table 84 – Demand and Supply Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	2

Status Quo: The COA received a score of 1 because at least one inpatient service line was over/under supplied, or more than 50% of specialties were inadequately supplied when compared to future Veteran in-house demand. Additionally, no changes to facilities or services were introduced that improve VA's ability to meet future Veteran enrollee population (e.g., relocation or establishment of facilities in areas with greater Veteran demand, expansion of services).

Modernization: The COA received a score of 2 because, while Modernization right-sizes services to meet future Veteran in-house demand, the COA does not include changes to facilities or services that improve VA's ability to meet future Veteran enrollee population (e.g., relocation or establishment of facilities in areas with greater Veteran demand, addition of new services).

VA Recommendation: The COA received a score of 2 because, while the COA right-sizes services to meet future Veteran in-house demand, the COA does not include changes to facilities or services that improve VA's ability to meet future Veteran enrollee population (e.g., relocation or establishment of facilities in areas with greater Veteran demand, expansion of services).

Access

Within the Access domain, the CBA considers how each COA impacts Veteran access to care in the future. Each COA is assessed on the change in enrollee proximity to VA-provided primary care, specialty care, and outpatient mental health care.

The table below shows the CBA access scores for VISN 23 Iowa Central for this domain.

Table 85 – Access Scoring Summary

Domain	Status Quo	Modernization	VA Recommendation
Access	2	2	3

Note: the CBA Access domain score is based on enrollee proximity to VA-provided care only rather than the full high-performing integrated delivery network (inclusive of VA, Community Care Network providers, and non-Community Care Network providers meeting quality criteria). While a COA may have a reduced access score within the CBA, the Section 203 Criteria analysis shows that the VA Recommendation COA maintains or improves access to all service lines in the future high-performing integrated delivery network (HPIDN).

Status Quo: The COA received a score of 2 because access is maintained within 1% for VA-provided primary care, specialty care, and outpatient mental health care.

Modernization: The COA received a score of 2 because access is maintained within 1% for VA-provided primary care, specialty care, and outpatient mental health care.

VA Recommendation: The COA received a score of 3 because access to VA-provided primary care increased 1% or more, specialty care increased 1% or more, and outpatient mental health care increased 1% or more.

Quality

Within the Quality domain, the CBA considers how each COA impacts the quality of Veteran care in the future. Each COA is assessed based on two benefit components: (1) the ability of the main patient care facilities to support modern healthcare; (2) the ability of demand to support clinical competency.

The table below shows the scores for VISN 23 Iowa Central for this domain.

Table 86 – Quality Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Quality	1	2	2

Status Quo: The COA received a score of 1 for two reasons. First, the COA includes main patient care facilities that were built prior to the emergence of modern healthcare design principles and specific standards to support modern medicine (e.g., floor-to-floor heights, corridor widths, columns spacing, and utility infrastructure requirements). Second, the COA includes facilities with projected future demand below VA planning guidelines for maintaining programs. VA's planning guidelines reflect that sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery.

Modernization: The COA received a score of 2 for two reasons. First, the COA replaces aged infrastructure with modern facilities that meet modern health care design standards. Modern facilities support current standards of care (e.g., PACT-enabled environment in the outpatient setting, single patient rooms in the inpatient setting) and utilization of technologies. They can also improve the experience for both Veterans and staff. Second, the COA includes facilities with projected future demand below VA planning guidelines for maintaining programs. VA's planning guidelines reflect that sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery.

VA Recommendation: The COA received a score of 2 for two reasons. First, the COA replaces aged infrastructure with modern facilities that meet modern health care design standards. Modern facilities support current standards of care (e.g., PACT-enabled environment in the outpatient setting, single patient rooms in the inpatient setting) and utilization of technologies. They can also improve the experience for both Veterans and staff. Second, the COA includes facilities with projected future demand below VA planning guidelines for maintaining programs.

Facilities and Sustainability

Within the Facilities and Sustainability domain, the CBA considers how each COA impacts the sustainability of Veteran care in the future. Each COA is assessed based on two benefit components: (1) the useful life of the main patient care facilities; (2) changes that strengthen VA's ability to recruit and retain providers.

The table below shows the scores for VISN 23 Iowa Central for this domain.

Table 87 – Facilities and Sustainability Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Facilities and Sustainability	1	2	2

Note: The American Hospital Association estimates that a hospital's useful life, a measure which predicts the productive period of a typical capital asset before it becomes obsolete or needs replacement, is currently 40 years.

Status Quo: The COA received a score of 1 for two reasons. First, the COA includes at least one main patient care facility that exceeds its useful life as defined by the American Hospital Association, indicating it may be obsolete or need replacement. Second, the COA does not include changes that strengthen VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities).

Modernization: The COA received a score of 2 for two reasons. First, the COA replaces all main patient care facilities that have exceeded their useful life with modern facilities that can be sustained over the coming years. Second, while the COA includes modernized infrastructure, which may attract providers, it does not include additional changes to support VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities).

VA Recommendation: The COA received a score of 2 for two reasons. First, the COA replaces all main patient care facilities that have exceeded their useful life with modern facilities that can be sustained over the coming years. Second, while the COA includes modernized infrastructure, which may attract providers, it does not include additional changes to support VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities).

Mission

Within the Mission domain, the CBA considers how each COA impacts VA's ability to support its statutory missions of Education, Research, and Emergency Preparedness in the future. Each COA is assessed on three benefit components: (1) the impact on training programs; (2) the impact on research programs; (3) the impact on emergency preparedness.

A COA's overall score in the Mission domain is determined by the rounded average (unweighted) of its component (e.g., Education, Research, Emergency Preparedness) scores. The table below shows the scores for VISN 23 Iowa Central for this domain.

Table 88 – Mission Scoring Summary

Subdomain	Status Quo	Modernization	VA Recommendation
Education	2	2	3

Subdomain	Status Quo	Modernization	VA Recommendation
Research	2	2	3
Emergency Preparedness	2	2	2
Overall Mission Score (Rounded Average)	**2**	**2**	**3**

Status Quo: The COA received a score of 2 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 2 because it does not impact inpatient acute service lines and thus maintains existing training programs.
- **Research:** The COA received a score of 2 because all existing facilities with research programs are maintained.
- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

Modernization: The COA received a score of 2 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 2 because it does not impact inpatient acute service lines and thus maintains existing training programs.
- **Research:** The COA received a score of 2 because all existing facilities with research programs are maintained.
- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

VA Recommendation: The COA received a score of 3 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 3 because inpatient acute services remain VA-delivered and thus the COA maintains existing training programs. Additionally, the COA includes new (not replacement) infrastructure that creates new opportunities for training within the market.
- **Research:** The COA received a score of 3 because it maintains all research programs and builds new (not replacement) infrastructure to support additional research space.
- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

Sensitivity Analysis

A sensitivity analyses study shows how various sources of uncertainty in a mathematical model contribute to the model's overall uncertainty. The market is considered sensitive to a scenario when the VA Recommendation is no longer the leading COA due to changes in benefit scores, VA capital costs, VA operational costs, or non-VA operational costs.

The table below outlines the sensitivity analysis scenarios completed.

Table 89 – Sensitivity Analysis Scenarios

Sensitivity Analysis Scenarios
Increase Benefit Scores for Status Quo and Modernization in increments of one from 1 to 3 points
Increase VA Capital Costs in 50% increments from 0% to 300%
Increase VA Operational Costs in 50% increments from 0% to 300%
Increase Non-VA Operational Costs in 50% increments from 0% to 300%

Sensitivity Analysis Results Summary

In the VISN 23 Iowa Central Market, one scenario changed the outcome of the CBA:

- Increasing the Modernization benefits score by three points

Sensitivity Analysis Full Results

The below tables show the results across all sensitivity analysis scenarios.

Table 90 – Sensitivity Analyses – Benefit Score Increase

Status Quo and Modernization Benefit Score Change	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
+0	1.15	0.92	0.72	VA Recommendation
+1	1.01	0.83	0.72	VA Recommendation
+2	0.89	0.76	0.72	VA Recommendation
+3	0.80	0.70	0.72	Modernization

Table 91 – Sensitivity Analyses – VA Capital Cost Increase

VA Capital Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.15	0.92	0.72	VA Recommendation
50%	1.17	0.99	0.78	VA Recommendation
100%	1.19	1.06	0.84	VA Recommendation
150%	1.21	1.13	0.90	VA Recommendation
200%	1.24	1.20	0.96	VA Recommendation
250%	1.26	1.27	1.02	VA Recommendation
300%	1.28	1.34	1.08	VA Recommendation

Table 92 – Sensitivity Analyses – VA Operational Cost Increase

VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.15	0.92	0.72	VA Recommendation
50%	1.52	1.18	0.90	VA Recommendation
100%	1.89	1.44	1.08	VA Recommendation
150%	2.26	1.69	1.26	VA Recommendation
200%	2.63	1.95	1.44	VA Recommendation
250%	3.00	2.21	1.62	VA Recommendation
300%	3.38	2.47	1.80	VA Recommendation

Table 93 – Sensitivity Analyses – Non-VA Operational Cost Increase

Non-VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.15	0.92	0.72	VA Recommendation
50%	1.33	1.04	0.85	VA Recommendation
100%	1.51	1.17	0.97	VA Recommendation
150%	1.69	1.30	1.10	VA Recommendation
200%	1.87	1.42	1.22	VA Recommendation
250%	2.06	1.55	1.34	VA Recommendation
300%	2.24	1.68	1.47	VA Recommendation

Appendix A – VISN 23 Iowa Central: Capital and Operational Costs Detail

Table 94 – Capital Costs by COA

	Status Quo	Modernization	VA Recommendation
VAMC Ideal Square Footage	-	1,086,385	1,075,464
Build New GSF	-	682,955	674,865
Renovate In Place GSF	-	52,133	52,096
Matched Convert To GSF	-	112,263	112,300
Demolition GSF	-	496,860	496,860
Total Build New Cost	$0	($654,475,942)	($646,328,223)
Total Renovate In Place Cost	$0	($5,349,486)	($5,349,487)
Total Matched Convert To Cost	$0	($49,205,207)	($49,303,215)
Total Demolition Cost	$0	($18,330,408)	($18,330,408)
Total Lease Build-Out Cost	$0	($34,821,921)	($39,230,370)
Total New Lease Cost	$0	($101,629,977)	($114,496,397)
Total Existing Lease Cost	($25,820,007)	($25,819,917)	($25,820,007)
NRM Costs for Owned Facilities	($236,941,838)	($126,827,451)	($125,552,447)
FCA Correction Cost	($39,744,573)	N/A	N/A
Estimated Base Modernization Cost	($302,506,418)	($1,016,460,310)	($1,024,410,554)
Additional Common/Lobby Space Needed (GSF)	-	239,034	236,203
Cost of Additional Common/Lobby Space	$0	($194,400,002)	($192,097,222)
Additional Parking Cost	$0	($28,825,321)	($28,390,260)

	Status Quo	Modernization	VA Recommendation
Potential Land Acquisition Cost	$0	($7,561,407)	($7,448,239)
Seismic Correction Cost	$0	$0	$0
Non-Building FCA Correction Cost	($2,914,931)	($2,914,930)	($2,914,931)
Activation Costs	$0	($167,464,569)	($166,308,681)
Estimated Additional Costs for Modernization	($2,914,931)	($401,166,229)	($397,159,332)
Cost Adjustment: In-Progress Construction	N/A	N/A	$0
Cost Adjustment: In-Progress Lease	N/A	N/A	$0
Estimated Facilities Costs (PV)	($305,421,349)	($1,417,626,538)	($1,421,569,885)

Table 95 – Operational Costs by COA

	Status Quo	Modernization	VA Recommendation
VA Direct	($3,036,896,092)	($3,036,896,092)	($2,525,906,116)
Fixed Direct	($454,147,909)	($454,147,909)	($388,868,748)
VA Specific Direct	($53,415,010)	($53,415,010)	($40,084,218)
Indirect	($1,231,888,818)	($1,231,888,818)	($1,001,922,425)
VA Specific Indirect	($155,024,174)	($155,024,174)	($126,563,817)
Research and Education	($2,667,795)	($2,667,795)	($2,397,619)
VA Overhead	($262,455,021)	($262,455,021)	($217,823,276)
VA Care Operational Cost Total (PV)	($5,196,494,818)	($5,196,494,818)	($4,303,566,219)
CC Direct	($1,708,045,296)	($1,708,045,296)	($2,144,604,790)
Delivery and Operations	($72,577,034)	($72,577,034)	($82,590,239)

	Status Quo	Modernization	VA Recommendation
Care Coordination	($73,091,163)	($73,091,163)	($82,053,781)
CC Overhead	($96,278,891)	($96,278,891)	($109,621,451)
Admin PMPM	($591,032,361)	($591,032,361)	($553,750,090)
Non-VA Care Operational Cost Total (PV)	($2,541,024,745)	($2,541,024,745)	($2,972,620,351)
Estimated Operational Costs (PV)	($7,737,519,563)	($7,737,519,563)	($7,276,186,570)

Appendix B – VISN 23 Iowa Central: Benefits Analysis Key Data

Below are key data points used in the benefit analysis, summarized in the above Benefit Analysis section.

Demand and Supply

Inpatient

Table 96 – Demand and Supply Key Data Points for Scoring – Inpatient (IP)

Service Line	100% of FY29 In-house Bed Need	120% of FY29 In-house Bed Need	Operating Beds	Supply Adequacy (within 100-120% of in-house demand)
IP CLC	54	64	98	Over Supplied
IP Med/Surg	32	39	45	Over Supplied
IP MH	11	13	10	Under Supplied

Note: Community Living Center (CLC); Medicine (Med); Surgery (Surg); Mental Health (MH)

Source: Enrollee Healthcare Projection Model Base Year 2019

Outpatient

Table 97 – Demand and Supply Key Data Points for Scoring – Outpatient (OP)

Physician Supply Adequacy	Count of Specialties	Percentage
Adequately Supplied	8	30%
Under Supplied	19	70%

Note: VA supply in the Status Quo COA is quantitatively evaluated based on the data above. It is assumed the Modernization COA scales the capacity of existing facilities up or down to meet future Veteran in-house demand. Similar to the Modernization COA, it is assumed the VA Recommendation COA scales the capacity of existing and proposed facilities up or down to meet future Veteran in-house demand. However, the VA Recommendation COA may account for factors that demand projections do not consider that may shift the future balance of in-house and community workload, such as:

- Areas with unmet Veteran demand that may warrant a net new point of care
- Low-census inpatient acute programs that may pose risks to quality and training programs, potentially warranting a shift to community providers
- Community capacity factors that may warrant changes to VA capacity

Source: Office of Productivity, Efficiency and Staffing 2019 Capacity Report

Table 98 – New Facility Demand Guidelines

Facility or Service	Guideline
Inpatient Acute VAMCs	Greater than or equal to 35,000 overlapping enrollees
Inpatient CLC	Greater than or equal to 21,000 overlapping enrollees
Health Care Center	Greater than or equal to 34,000 overlapping enrollees
MS CBOC	Greater than or equal to 4,300 non-overlapping enrollees
CBOC	Greater than or equal to 2,500 non-overlapping enrollees

Note: The above guidelines are used to determine whether a new (not replacement) point of care or service proposed in the VA recommendation had adequate demand.

Access

Table 99 – Access Key Data Points for Scoring

COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of VA-provided OP Mental Health	64.9%	64.9%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of VA-provided OP Primary Care	67.0%	67.0%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of VA-provided OP Specialty Care	87.0%	87.0%	Maintained within 1%

COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	97.3%	97.3%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.9%	99.9%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Mental Health	64.9%	64.9%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Primary Care	67.0%	67.0%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of VA-provided OP Specialty Care	87.0%	87.0%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	97.3%	97.3%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.9%	99.9%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Mental Health	64.9%	72.2%	Increased 1% or more

COA	Measure	Current	Future	Result
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Primary Care	67.0%	73.0%	Increased 1% or more
VA Recommendation	% of enrollees within 60 minutes of VA-provided OP Specialty Care	87.0%	93.9%	Increased 1% or more
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	97.3%	97.8%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.9%	99.9%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%

Note: the CBA Access domain score is based on enrollee proximity to VA-provided care only rather than the full high-performing integrated delivery network (HPIDN) (inclusive of VA, Community Care Network, and non-Community Care Network providers meeting quality criteria). While a COA may have a reduced access score within the CBA, the Section 203 Criteria analysis shows that the VA Recommendation COA maintains or improves access to all service lines in the future HPIDN. The table above shows the results for enrollee proximity to the full HPIDN as well as to VA-provided care in the market.

Source: Enrollee data from the FY19 Geocoded Enrollee File. Existing VA facility location data from VAST. Commercial provider location data from Definitive Healthcare.

Quality

Main Patient Care Facility Construction Date

Table 100 – Quality Key Data Points for Scoring – Age

Facility	Main Patient Care Facility Construction Date	Built Pre-1970?
(V23) (636A6) Des Moines-Iowa	1933	Yes

Source: Main patient care facility construction and renovation dates from CAI Buildings and FCA Condition Gaps Reports 9-14-2020

Inpatient Acute Demand

Table 101 – Quality Key Data Points for Scoring – Inpatient Acute Demand

Facility	Service	Demand Guideline	Meets or Exceeds Guideline?	VA Recommendation
(V23) (636A6) Des Moines	IP Med	20 ADC	No	Maintain
(V23) (636A6) Des Moines	IP Surg	1,600 Cases	Yes	Maintain
(V23) (636A6) Des Moines	IP MH	8 ADC	Yes	Maintain

Note: The Status Quo and Modernization COAs are assumed to maintain all current facilities and services. The VA Recommendation COA proposes maintaining, partnering, and divesting of services at each facility, shown in the last column titled "VA Recommendation". To score a 3, the VA recommendation must partner or divest of all low-demand services.

Source: FY 2029 average daily census for inpatient services is based on Enrollee Healthcare Projection Model Base Year 2019. 2019 Total Surgical Cases is from the VA National Surgery Office.

Facilities and Sustainability

Table 102 – Facilities and Sustainability Key Data Points for Scoring

Facility	Main Patient Care Facility Construction Date	Most Recent Main Patient Care Facility Renovation Date	Exceeds Useful Life?
(V23) (636A6) Des Moines-Iowa	1933	2018	Yes

Note: Exceeding useful life is defined as 1) When a main patient care facility was built before 1970 it has exceeded its useful life, even if it has undergone major renovation in the last 40 years. 2) When a main patient care facility was built after 1970 but is still more than 40 years old (built on or after 1971 and before 1989), it must have undergone major renovation within the last 40 years to not exceed its useful life. 3) When a main patient care facility was built in or after 1989, it has not exceeded its useful life.

Source: From CAI Buildings and FCA Condition Gaps Reports 9-14-2020

Table 103 – Key Data Points for Scoring - Recruitment and Retention

Facility	Expands VA's Ability to Recruit/Retain?
N/A	N/A

Mission

Table 104 – Mission Key Data Points for Scoring

The Status Quo and Modernization COAs are assumed to have no impact on VA's statutory missions. The impact of the VA Recommendation on VA's statutory missions is shown in the table below:

Facility	Training Impact	Research Impact	4th Mission Impact	Market Plan Includes New Facilities/Services To Increase Training/Research Opportunities
(V23) (636A6) Des Moines	No impact on training	No Research Program	No PRC Designation	Increases Research Opportunities, Increases Training Opportunities

VISN 23 Nebraska

The recommendations for modernization and realignment of VHA infrastructure submitted by the Secretary of the Department of Veterans Affairs to the Asset and Infrastructure Review (AIR) Commission are focused on allowing VA to provide accessible, timely, and high-quality health care for Veterans now and in the future. To inform the recommendations, VA conducted a Cost Benefit Analysis (CBA) that examines the cost-efficiency and benefits to Veterans of various courses of action (COAs) within each market. The CBA compares the costs and benefits associated with maintaining the current facilities, modernizing the current facilities, or strategically realigning and modernizing facilities in each market to inform the identification of a preferred COA.

The CBA aligns with requirements outlined in Section 1703C of Title 38, United States Code (U.S.C.), as added by Section 203 of the VA MISSION Act of 2018.

> *VA MISSION Act, Section 203(2)(F)*
>
> *"In making recommendations under this subsection, the Secretary shall consider…the extent and timing of potential costs and savings, including the number of years such costs or savings will be incurred, beginning with the date of completion of the proposed recommendation."*

This CBA summary document defines the COAs, provides a brief overview of the methodology, and outlines the results of the CBA and the associated sensitivity analysis.

Overview of COAs and Methodology

The Cost Benefit Analysis (CBA) reviews, analyzes, and compares the costs and benefits of three distinct courses of action (COA):

- maintaining VA's current facilities assuming no changes or additional modernization to current facilities, programs, and infrastructure (COA Name: Status Quo)
- modernizing the current facilities without strategically realigning facilities (COA Name: Modernization)
- strategically realigning and modernizing facilities (COA Name: VA Recommendation to the AIR Commission)

To evaluate these courses of action, VA examined the combined cost and benefits of each COA for each market. The CBA was conducted at the market level, rather than at the facility level, to allow for a holistic assessment of a COA's impact that considers optimization of the market across all health care facilities. The financial costs were assessed using a Present Value (PV) analysis while the non-financial benefits were assessed using a Benefits Analysis Scoring process. Ultimately, the CBA results in a Cost-Benefit Index – a simple metric by which to compare the combined cost and non-financial benefits associated with each COA. The CBI equals the total life-cycle cost (PV) of each COA in PV dollars, divided by the Benefits Analysis score for that COA's non-financial benefits normalized to the billions place. The COA with the lowest CBI score is the preferred COA.

Summary of Results

The VA Recommendation COA is the leading COA analyzed in the VISN 23 Nebraska Market due to its leading Cost Benefit Index (CBI) score. The CBI score for the VA Recommendation COA (1.07) is 39.8% lower than the Status Quo COA (1.77) and 21.1% lower than the Modernization COA (1.35).

The VA Recommendation COA is $754.6 M (5.3%) more expensive than the Status Quo COA and $55.1 M (0.4%) more expensive than the Modernization COA. While the VA Recommendation COA increases cost compared to the Status Quo and Modernization COAs, it also increases benefits as seen by a 14-point benefits score compared to 8 for the Status Quo COA and 11 for the Modernization COA.

The tables below detail the present values, benefit scores, and CBIs for each COA.

Table 105 – CBI Scores by COA

	Status Quo	Modernization	VA Recommendation
COA PV ($)	($14,171,692,735)	($14,871,176,429)	($14,926,313,741)
Benefit Analysis Score	8	11	14
CBI (Normalized in $Billions)	1.77	1.35	1.07
CBI % Change vs. Status Quo	N/A	-23.7%	-39.8%
CBI % Change vs. Modernization	N/A	N/A	-21.1%

Table 106 – Cost Analysis Cost Variance by COA

Cost Variance	Status Quo	Modernization	VA Recommendation
Capital Cost Variance vs. Status Quo	N/A	($699,483,695)	($754,621,006)
Operational Cost Variance vs. Status Quo	N/A	$0	$0
Estimated Total Cost Variance vs. Status Quo	N/A	($699,483,695)	($754,621,006)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	($55,137,312)

Note: Operational unit costs were provided at the parent facility level not at the facility level. Therefore, the analysis does not estimate the changes in operational costs stemming from new, expanded, or removed points of care (POC). The analysis only shows changes to operational costs when a service line is shifted, at the parent facility level, from VA care to non-VA care.

Table 107 – Benefit Analysis Scores by COA

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3
Access	2	2	3
Quality	2	3	2
Facilities and Sustainability	1	2	3
Mission	2	2	3
Total Benefit Score	**8**	**11**	**14**

VA Recommendation

The VA Recommendation for the VISN 23 Nebraska Market COA is detailed below.

- Modernize and realign the Omaha VAMC by:
  - Constructing a new hospital building in the vicinity of the existing Omaha VAMC
  - Modernizing the RRTP at the existing Omaha VAMC
- Modernize and realign outpatient facilities in the market by:
  - Establishing a new CBOC in the vicinity of Council Bluffs, Iowa
  - Establishing a new CBOC in the vicinity of Fremont, Nebraska

Cost Analysis

The Cost Analysis highlighted the estimated Present Value (PV) of each COA for the VISN 23 Nebraska Market across a 30-year horizon. The cost of the VA Recommendation COA ($14.93 B) was higher than the Status Quo COA ($14.2 B) and the Modernization COA ($14.87 B).

For the VISN 23 Nebraska Market, the VA Recommendation COA is $754.6 M (5.3%) more expensive than the Status Quo COA and $55.1 M (0.4%) more expensive than the Modernization COA. The cost difference between the VA Recommendation COA and Status Quo COA can be attributed to new facilities, closing or modernizing existing facilities, and scaling capacity of existing facilities up or down to meet future Veteran in-house demand to accommodate changes in demand.

The table below outlines the costs associated with each of the COAs. For more detail refer to Appendix A – VISN 23 Nebraska: Capital and Operational Costs Detail.

Table 108 – Total Cost Summary by COA

	Status Quo	Modernization	VA Recommendation
Total Costs (PV)	($14,171,692,735)	($14,871,176,429)	($14,926,313,741)
Capital Cost Variance vs. Status Quo	N/A	($699,483,695)	($754,621,006)
Operational Cost Variance vs. Status Quo	N/A	$0	$0
Non-VA Care Operational Cost Variance	N/A	$0	$0
VA Care Operational Cost Variance	N/A	$0	$0
Estimated Total Cost Variance vs. Status Quo	N/A	($699,483,695)	($754,621,006)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	($55,137,312)

Benefit Analysis

This section describes the non-financial benefit analysis results for the VISN 23 Nebraska Market across five domains: Demand and Supply, Access, Quality, Facilities and Sustainability, and Mission. The results indicate that the VA Recommendation COA provides the most benefit (greatest Total Benefit Score) in comparison to the Status Quo and Modernization COAs.

Table 109 – Benefit Analysis Scores by COA

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3
Access	2	2	3
Quality	2	3	2
Facilities and Sustainability	1	2	3
Mission	2	2	3
Total Benefit Score	**8**	**11**	**14**

The scoring and rationale within each domain are described in the following sections. The data underlying the analysis is provided in Appendix B – VISN 23 Nebraska: Benefits Analysis Key Data. Additional information regarding the scoring methodology is provided in the CBA Methodology.

Demand and Supply

Within the Demand and Supply domain, the CBA considers how each COA impacts VA's ability to meet Veteran demand in the future. Each COA is assessed on two benefit components: (1) the ability to balance demand and supply; (2) the changes to facility placement or service offerings that improve VA's ability to meet future demand.

The table below shows the scores for VISN 23 Nebraska for this domain.

Table 110 – Demand and Supply Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3

Status Quo: The COA received a score of 1 because at least one inpatient service line was over/under supplied, or more than 50% of specialties were inadequately supplied when compared to future Veteran in-house demand. Additionally, no changes to facilities or services were introduced that improve VA's ability to meet the future Veteran enrollee population (e.g., relocation or establishment of facilities in areas with greater Veteran demand, expansion of services).

Modernization: The COA received a score of 2 because, while Modernization right-sizes services to meet future Veteran in-house demand, the COA does not include changes to facilities or services that improve VA's ability to meet future Veteran enrollee population (e.g., relocation or establishment of facilities in areas with greater Veteran demand, addition of new services).

VA Recommendation: The COA received a score of 3 because it right-sizes services to meet future Veteran enrollee demand and includes changes to facilities or services that improve VA's ability to meet future Veteran enrollee demand based on guidelines established in the CBA methodology. These changes include the following:

- Establishes a new Omaha VA Hospital to provide inpatient medicine and surgery services; 41,177 enrollees live within 60 minutes of the proposed facility
- Establishes a new Council Bluffs CBOC to provide primary care and outpatient mental health services; there are 3,120 enrollees for which the proposed facility is the closest VA point of care within 30 minutes
- Expands the Bellevue CBOC to a MS CBOC, adding outpatient specialty care services

Access

Within the Access domain, the CBA considers how each COA impacts Veteran access to care in the future. Each COA is assessed on the change in enrollee proximity to VA-provided primary care, specialty care, and outpatient mental health care.

The table below shows the CBA access scores for VISN 23 Nebraska for this domain.

Table 111 – Access Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Access	2	2	3

Note: the CBA Access domain score is based on enrollee proximity to VA-provided care only rather than the full high-performing integrated delivery network (inclusive of VA, Community Care Network providers, and non-Community Care Network providers meeting quality criteria). While a COA may have a reduced access score within the CBA, the Section 203 Criteria analysis shows that the VA Recommendation COA maintains or improves access to all service lines in the future high-performing integrated delivery network (HPIDN).

Status Quo: The COA received a score of 2 because access is maintained within 1% for VA-provided primary care, specialty care, and outpatient mental health care.

Modernization: The COA received a score of 2 because access is maintained within 1% for VA-provided primary care, specialty care, and outpatient mental health care.

VA Recommendation: The COA received a score of 3 because access to VA-provided primary care increased 1% or more, specialty care increased 1% or more, and outpatient mental health care increased 1% or more.

Quality

Within the Quality domain, the CBA considers how each COA impacts the quality of Veteran care in the future. Each COA is assessed based on two benefit components: (1) the ability of the main patient care facilities to support modern healthcare; (2) the ability of demand to support clinical competency.

The table below shows the scores for VISN 23 Nebraska for this domain.

Table 112 – Quality Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Quality	2	3	2

Status Quo: The COA received a score of 2 for two reasons. First, the COA includes main patient care facilities that were built prior to the emergence of modern healthcare design principles and specific standards to support modern medicine (e.g., floor-to-floor heights, corridor widths, columns spacing, and utility infrastructure requirements). Second, the COA includes facilities with projected future demand at or above VA planning guidelines for maintaining programs. VA's planning guidelines reflect that sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery.

Modernization: The COA received a score of 3 for two reasons. First, the COA contains only modern facilities that meet modern health care design standards. Modern facilities support current standards of care (e.g., PACT-enabled environment in the outpatient setting, single patient rooms in the inpatient setting) and utilization of technologies. They can also improve the experience for both Veterans and staff. Second, the COA includes facilities with projected future demand at or above VA planning

guidelines for maintaining programs. VA's planning guidelines reflect that sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery.

VA Recommendation: The COA received a score of 2 for two reasons. First, the CO replaces aged infrastructure with modern facilities that meet modern health care design standards. Modern facilities support current standards of care (e.g., PACT-enabled environment in the outpatient setting, single patient rooms in the inpatient setting) and utilization of technologies. They can also improve the experience for both Veterans and staff. Second, the COA includes facilities with projected future demand below VA planning guidelines for maintaining programs. VA's planning guidelines reflect that sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery.

Facilities and Sustainability

Within the Facilities and Sustainability domain, the CBA considers how each COA impacts the sustainability of Veteran care in the future. Each COA is assessed based on two benefit components: (1) the useful life of the main patient care facilities; (2) changes that strengthen VA's ability to recruit and retain providers.

The table below shows the scores for VISN 23 Nebraska for this domain.

Table 113 – Facilities and Sustainability Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Facilities and Sustainability	1	2	3

Note: The American Hospital Association estimates that a hospital's useful life, a measure which predicts the productive period of a typical capital asset before it becomes obsolete or needs replacement, is currently 40 years.

Status Quo: The COA received a score of 1 for two reasons. First, the COA includes at least one main patient care facility that exceeds its useful life as defined by the American Hospital Association, indicating it may be obsolete or need replacement. Second, the COA does not include changes that strengthen VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities).

Modernization: The COA received a score of 2 for two reasons. First, the COA replaces all main patient care facilities that have exceeded their useful life with modern facilities that can be sustained over the coming years. Second, while the COA includes modernized infrastructure, which may attract providers, it does not include additional changes to support VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities).

VA Recommendation: The COA received a score of 3 for two reasons. First, the COA replaces all main patient care facilities that have exceeded their useful life with modern facilities that can be sustained over the coming years. Second, in addition to modernized infrastructure which may attract providers, it also includes additional changes to support VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities).

- Establishes the Omaha Midland community living center partnership

Mission

Within the Mission domain, the CBA considers how each COA impacts VA's ability to support its statutory missions of Education, Research, and Emergency Preparedness in the future. Each COA is assessed on three benefit components: (1) the impact on training programs; (2) the impact on research programs; (3) the impact on emergency preparedness.

A COA's overall score in the Mission domain is determined by the rounded average (unweighted) of its component (e.g., Education, Research, Emergency Preparedness) scores.

The table below shows the scores for VISN 23 Nebraska for this domain.

Table 114 – Mission Scoring Summary

Subdomain	Status Quo	Modernization	VA Recommendation
Education	2	2	3
Research	2	2	3
Emergency Preparedness	2	2	2
Overall Mission Score (Rounded Average)	**2**	**2**	**3**

Status Quo: The COA received a score of 2 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 2 because it does not impact inpatient acute service lines and thus maintains existing training programs.
- **Research:** The COA received a score of 2 because all existing facilities with research programs are maintained.
- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

Modernization: The COA received a score of 2 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 2 because it does not impact inpatient acute service lines and thus maintains existing training programs.
- **Research:** The COA received a score of 2 because all existing facilities with research programs are maintained.
- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

VA Recommendation: The COA received a score of 3 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 3 because inpatient acute services remain VA-delivered and thus the COA maintains existing training programs. Additionally, the COA includes new (not replacement) infrastructure that creates new opportunities for training within the market.
- **Research:** The COA received a score of 3 because it maintains all research programs and builds new (not replacement) infrastructure to support additional research space.

- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

Sensitivity Analysis

A sensitivity analyses study shows how various sources of uncertainty in a mathematical model contribute to the model's overall uncertainty. The market is considered sensitive to a scenario when the VA Recommendation is no longer the leading COA due to changes in benefit scores, VA capital costs, VA operational costs, or non-VA operational costs.

The table below outlines the sensitivity analysis scenarios completed.

Table 115 – Sensitivity Analysis Scenarios

Sensitivity Analysis Scenarios
Increase Benefit Scores for Status Quo and Modernization in increments of one from 1 to 3 points
Increase VA Capital Costs in 50% increments from 0% to 300%
Increase VA Operational Costs in 50% increments from 0% to 300%
Increase Non-VA Operational Costs in 50% increments from 0% to 300%

Sensitivity Analysis Results Summary

In the VISN 23 Nebraska Market, one scenario changed the outcome of the CBA:

- Increasing the Modernization benefits score by three points

Sensitivity Analysis Full Results

The below tables show the results across all sensitivity analysis scenarios.

Table 116 – Sensitivity Analyses – Benefit Score Increase

Status Quo and Modernization Benefit Score Change	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
+0	1.77	1.35	1.07	VA Recommendation
+1	1.57	1.24	1.07	VA Recommendation
+2	1.42	1.14	1.07	VA Recommendation

Status Quo and Modernization Benefit Score Change	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
+3	1.29	1.06	1.07	Modernization

Table 117 – Sensitivity Analyses – VA Capital Cost Increase

VA Capital Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.77	1.35	1.07	VA Recommendation
50%	1.83	1.43	1.13	VA Recommendation
100%	1.89	1.50	1.19	VA Recommendation
150%	1.95	1.58	1.25	VA Recommendation
200%	2.01	1.65	1.31	VA Recommendation
250%	2.07	1.73	1.37	VA Recommendation
300%	2.13	1.80	1.43	VA Recommendation

Table 118 – Sensitivity Analyses – VA Operational Cost Increase

VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.77	1.35	1.07	VA Recommendation
50%	2.29	1.73	1.36	VA Recommendation
100%	2.81	2.11	1.66	VA Recommendation

VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
150%	3.33	2.49	1.96	VA Recommendation
200%	3.85	2.86	2.25	VA Recommendation
250%	4.37	3.24	2.55	VA Recommendation
300%	4.89	3.62	2.85	VA Recommendation

Table 119 – Sensitivity Analyses – Non-VA Operational Cost Increase

Non-VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.77	1.35	1.07	VA Recommendation
50%	2.08	1.57	1.24	VA Recommendation
100%	2.38	1.80	1.42	VA Recommendation
150%	2.69	2.02	1.59	VA Recommendation
200%	3.00	2.24	1.77	VA Recommendation
250%	3.30	2.47	1.94	VA Recommendation
300%	3.61	2.69	2.12	VA Recommendation

Appendix A – VISN 23 Nebraska: Capital and Operational Costs Detail

Table 120 – Capital Costs by COA

	Status Quo	Modernization	VA Recommendation
VAMC Ideal Square Footage	-	1,475,154	1,499,181
Build New GSF	-	757,560	775,358
Renovate In Place GSF	-	227,200	226,094
Matched Convert To GSF	-	225,248	226,354
Demolition GSF	-	870,512	870,512
Total Build New Cost	$0	($701,948,296)	($712,042,378)
Total Renovate In Place Cost	$0	($57,206,696)	($57,159,421)
Total Matched Convert To Cost	$0	($88,864,511)	($89,876,329)
Total Demolition Cost	$0	($31,150,876)	($31,150,876)
Total Lease Build-Out Cost	$0	($30,553,924)	($39,370,815)
Total New Lease Cost	$0	($89,173,564)	($114,906,294)
Total Existing Lease Cost	($17,759,146)	($17,759,073)	($17,759,146)
NRM Costs for Owned Facilities	($774,215,063)	($172,213,330)	($175,018,340)
FCA Correction Cost	($147,915,530)	N/A	N/A
Estimated Base Modernization Cost	($939,889,738)	($1,188,870,272)	($1,237,283,598)
Additional Common/Lobby Space Needed (GSF)	-	265,146	271,375
Cost of Additional Common/Lobby Space	$0	($208,956,942)	($214,009,935)
Additional Parking Cost	$0	($24,863,338)	($25,287,002)

	Status Quo	Modernization	VA Recommendation
Potential Land Acquisition Cost	$0	($3,041,042)	($3,821,511)
Seismic Correction Cost	($8,590,000)	($2,560,000)	($2,560,000)
Non-Building FCA Correction Cost	($6,467,541)	($6,467,540)	($6,467,541)
Activation Costs	$0	($219,671,842)	($220,138,698)
Estimated Additional Costs for Modernization	($15,057,541)	($465,560,704)	($472,284,687)
Cost Adjustment: In-Progress Construction	N/A	N/A	$0
Cost Adjustment: In-Progress Lease	N/A	N/A	$0
Estimated Facilities Costs (PV)	($954,947,279)	($1,654,430,974)	($1,709,568,286)

Table 121 – Operational Costs by COA

	Status Quo	Modernization	VA Recommendation
VA Direct	($4,490,706,395)	($4,490,706,395)	($4,490,706,395)
Fixed Direct	($718,929,178)	($718,929,178)	($718,929,178)
VA Specific Direct	($299,772,944)	($299,772,944)	($299,772,944)
Indirect	($2,110,484,329)	($2,110,484,329)	($2,110,484,329)
VA Specific Indirect	($266,070,418)	($266,070,418)	($266,070,418)
Research and Education	($5,299,807)	($5,299,807)	($5,299,807)
VA Overhead	($420,793,509)	($420,793,509)	($420,793,509)
VA Care Operational Cost Total (PV)	($8,312,056,580)	($8,312,056,580)	($8,312,056,580)
CC Direct	($2,986,968,099)	($2,986,968,099)	($2,986,968,099)
Delivery and Operations	($128,238,310)	($128,238,310)	($128,238,310)

	Status Quo	Modernization	VA Recommendation
Care Coordination	($123,968,676)	($123,968,676)	($123,968,676)
CC Overhead	($172,846,340)	($172,846,340)	($172,846,340)
Admin PMPM	($1,492,667,450)	($1,492,667,450)	($1,492,667,450)
Non-VA Care Operational Cost Total (PV)	($4,904,688,876)	($4,904,688,876)	($4,904,688,876)
Estimated Operational Costs (PV)	($13,216,745,455)	($13,216,745,455)	($13,216,745,455)

Appendix B – VISN 23 Nebraska: Benefits Analysis Key Data

Below are key data points used in the benefit analysis, summarized in the above Benefit Analysis section.

Demand and Supply

Inpatient

Table 122 – Demand and Supply Key Data Points for Scoring – Inpatient (IP)

Service Line	100% of FY29 In-house Bed Need	120% of FY29 In-house Bed Need	Operating Beds	Supply Adequacy (within 100-120% of in-house demand)
IP CLC	52	63	48	Under Supplied
IP Med/Surg	46	56	78	Over Supplied
IP MH	13	16	16	Over Supplied

Note: Community Living Center (CLC); Medicine (Med); Surgery (Surg); Mental Health (MH)

Source: Enrollee Healthcare Projection Model Base Year 2019

Outpatient

Table 123 – Demand and Supply Key Data Points for Scoring – Outpatient (OP)

Physician Supply Adequacy	Count of Specialties	Percentage
Adequately Supplied	8	30%
Under Supplied	19	70%

Note: VA supply in the Status Quo COA is quantitatively evaluated based on the data above. It is assumed the Modernization COA scales the capacity of existing facilities up or down to meet future Veteran in-house demand. Similar to the Modernization COA, it is assumed the VA Recommendation COA scales the capacity of existing and proposed facilities up or down to meet future Veteran in-house demand. However, the VA Recommendation COA may account for factors that demand projections do not consider that may shift the future balance of in-house and community workload, such as:

- Areas with unmet Veteran demand that may warrant a net new point of care
- Low-census inpatient acute programs that may pose risks to quality and training programs, potentially warranting a shift to community providers
- Community capacity factors that may warrant changes to VA capacity

Source: Office of Productivity, Efficiency and Staffing 2019 Capacity Report

Table 124 – New Facility Demand Guidelines

Facility or Service	Guideline
Inpatient Acute VAMCs	Greater than or equal to 35,000 overlapping enrollees
Inpatient CLC	Greater than or equal to 21,000 overlapping enrollees
Health Care Center	Greater than or equal to 34,000 overlapping enrollees
MS CBOC	Greater than or equal to 4,300 non-overlapping enrollees
CBOC	Greater than or equal to 2,500 non-overlapping enrollees

Note: The above guidelines are used to determine whether a new (not replacement) point of care or service proposed in the VA recommendation had adequate demand.

Access

Table 125 – Access Key Data Points for Scoring

COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of VA-provided OP Mental Health	69.9%	69.9%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of VA-provided OP Primary Care	70.1%	70.1%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of VA-provided OP Specialty Care	88.5%	88.5%	Maintained within 1%

COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	95.1%	95.1%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.4%	99.4%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	99.9%	99.9%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Mental Health	69.9%	69.9%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Primary Care	70.1%	70.1%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of VA-provided OP Specialty Care	88.5%	88.5%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	95.1%	95.1%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.4%	99.4%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	99.9%	99.9%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Mental Health	69.9%	73.3%	Increased 1% or more

COA	Measure	Current	Future	Result
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Primary Care	70.1%	73.3%	Increased 1% or more
VA Recommendation	% of enrollees within 60 minutes of VA-provided OP Specialty Care	88.5%	90.2%	Increased 1% or more
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	95.1%	95.1%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.4%	99.4%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	99.9%	99.9%	Maintained within 1%

Note: the CBA Access domain score is based on enrollee proximity to VA-provided care only rather than the full high-performing integrated delivery network (HPIDN) (inclusive of VA, Community Care Network, and non-Community Care Network providers meeting quality criteria). While a COA may have a reduced access score within the CBA, the Section 203 Criteria analysis shows that the VA Recommendation COA maintains or improves access to all service lines in the future HPIDN. The table above shows the results for enrollee proximity to the full HPIDN as well as to VA-provided care in the market.

Source: Enrollee data from the FY19 Geocoded Enrollee File. Existing VA facility location data from VAST. Commercial provider location data from Definitive Healthcare.

Quality

Main Patient Care Facility Construction Date

Table 126 – Quality Key Data Points for Scoring – Age

Facility	Main Patient Care Facility Construction Date	Built Pre-1970?
(V23) (636) Omaha-Nebraska	1950	Yes
(V23) (636A4) Grand Island	1950	Yes
(V23) (636A5) Lincoln-Nebraska	1930	Yes

Source: Main patient care facility construction and renovation dates from CAI Buildings and FCA Condition Gaps Reports 9-14-2020

Inpatient Acute Demand

Table 127 – Quality Key Data Points for Scoring – Inpatient Acute Demand

Facility	Service	Demand Guideline	Meets or Exceeds Guideline?	VA Recommendation
(V23) (636) Omaha	IP Med	20 ADC	Yes	Replace/Relocate
(V23) (636) Omaha	IP Surg	1,600 Cases	Yes	Replace/Relocate
(V23) (636) Omaha	IP MH	8 ADC	Yes	Maintain

Note: The Status Quo and Modernization COAs are assumed to maintain all current facilities and services. The VA Recommendation COA proposes maintaining, partnering, and divesting of services at each facility, shown in the last column titled "VA Recommendation". To score a 3, the VA recommendation must partner or divest of all low-demand services.

Source: FY 2029 average daily census for inpatient services is based on Enrollee Healthcare Projection Model Base Year 2019. 2019 Total Surgical Cases is from the VA National Surgery Office.

Facilities and Sustainability

Table 128 – Facilities and Sustainability Key Data Points for Scoring

Facility	Main Patient Care Facility Construction Date	Most Recent Main Patient Care Facility Renovation Date	Exceeds Useful Life?
(V23) (636) Omaha-Nebraska	1950	1990	Yes
(V23) (636A4) Grand Island	1950	1987	Yes
(V23) (636A5) Lincoln-Nebraska	1930	1990	Yes

Note: Exceeding useful life is defined as 1) When a main patient care facility was built before 1970 it has exceeded its useful life, even if it has undergone major renovation in the last 40 years. 2) When a main patient care facility was built after 1970 but is still more than 40 years old (built on or after 1971 and before 1989), it must have undergone major renovation within the last 40 years to not exceed its useful life. 3) When a main patient care facility was built in or after 1989, it has not exceeded its useful life.

Source: From CAI Buildings and FCA Condition Gaps Reports 9-14-2020

Table 129 – Key Data Points for Scoring - Recruitment and Retention

Facility	Expands VA's Ability to Recruit/Retain?
VISN Opportunity -- Omaha Midland CLC	Yes

Mission

Table 130 – Mission Key Data Points for Scoring

The Status Quo and Modernization COAs are assumed to have no impact on VA's statutory missions. The impact of the VA Recommendation on VA's statutory missions is shown in the table below:

Facility	Training Impact	Research Impact	4th Mission Impact	Market Plan Includes New Facilities/Services To Increase Training/Research Opportunities
(V23) (636) Omaha	No impact on training	Maintains or Has Plan to Transition	No PRC Designation	Increases Research Opportunities, Increases Training Opportunities

VISN 23 North Dakota

The recommendations for modernization and realignment of VHA infrastructure submitted by the Secretary of the Department of Veterans Affairs to the Asset and Infrastructure Review (AIR) Commission are focused on allowing VA to provide accessible, timely, and high-quality health care for Veterans now and in the future. To inform the recommendations, VA conducted a Cost Benefit Analysis (CBA) that examines the cost-efficiency and benefits to Veterans of various courses of action (COAs) within each market. The CBA compares the costs and benefits associated with maintaining the current facilities, modernizing the current facilities, or strategically realigning and modernizing facilities in each market to inform the identification of a preferred COA.

The CBA aligns with requirements outlined in Section 1703C of Title 38, United States Code (U.S.C.), as added by Section 203 of the VA MISSION Act of 2018.

> *VA MISSION Act, Section 203(2)(F)*
>
> *"In making recommendations under this subsection, the Secretary shall consider…the extent and timing of potential costs and savings, including the number of years such costs or savings will be incurred, beginning with the date of completion of the proposed recommendation."*

This CBA summary document defines the COAs, provides a brief overview of the methodology, and outlines the results of the CBA and the associated sensitivity analysis.

Overview of COAs and Methodology

The Cost Benefit Analysis (CBA) reviews, analyzes, and compares the costs and benefits of three distinct courses of action (COA):

- maintaining VA's current facilities assuming no changes or additional modernization to current facilities, programs, and infrastructure (COA Name: Status Quo)
- modernizing the current facilities without strategically realigning facilities (COA Name: Modernization)
- strategically realigning and modernizing facilities (COA Name: VA Recommendation to the AIR Commission)

To evaluate these courses of action, VA examined the combined cost and benefits of each COA for each market. The CBA was conducted at the market level, rather than at the facility level, to allow for a holistic assessment of a COA's impact that considers optimization of the market across all health care facilities. The financial costs were assessed using a Present Value (PV) analysis while the non-financial benefits were assessed using a Benefits Analysis Scoring process. Ultimately, the CBA results in a Cost-Benefit Index – a simple metric by which to compare the combined cost and non-financial benefits associated with each COA. The CBI equals the total life-cycle cost (PV) of each COA in PV dollars, divided by the Benefits Analysis score for that COA's non-financial benefits normalized to the billions place. The COA with the lowest CBI score is the preferred COA.

Summary of Results

The VA Recommendation COA is the leading COA analyzed in the VISN 23 North Dakota Market due to its leading Cost Benefit Index (CBI) score. The CBI score for the VA Recommendation COA (0.66) is 42.0% lower than the Status Quo COA (1.14) and 22.2% lower than the Modernization COA (0.85).

The VA Recommendation COA is $617.7 M (7.7%) more expensive than the Status Quo COA and $96.6 M (1.1%) more expensive than the Modernization COA. While the VA Recommendation COA increases cost compared to the Status Quo and Modernization COAs, it also increases benefits as seen by a 13-point benefits score compared to 7 for the Status Quo COA and 10 for the Modernization COA.

The tables below detail the present values, benefit scores, and CBIs for each COA.

Table 131 – CBI Scores by COA

	Status Quo	Modernization	VA Recommendation
COA PV ($)	($7,974,828,543)	($8,495,925,883)	($8,592,556,737)
Benefit Analysis Score	7	10	13
CBI (Normalized in $Billions)	1.14	0.85	0.66
CBI % Change vs. Status Quo	N/A	-25.4%	-42.0%
CBI % Change vs. Modernization	N/A	N/A	-22.2%

Table 132 – Cost Analysis Cost Variance by COA

Cost Variance	Status Quo	Modernization	VA Recommendation
Capital Cost Variance vs. Status Quo	N/A	($521,097,340)	($617,728,194)
Operational Cost Variance vs. Status Quo	N/A	$0	$0
Estimated Total Cost Variance vs. Status Quo	N/A	($521,097,340)	($617,728,194)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	($96,630,854)

Note: Operational unit costs were provided at the parent facility level not at the facility level. Therefore, the analysis does not estimate the changes in operational costs stemming from new, expanded, or removed points of care (POC). The analysis only shows changes to operational costs when a service line is shifted, at the parent facility level, from VA care to non-VA care.

Table 133 – Benefit Analysis Scores by COA

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3
Access	2	2	3
Quality	1	2	2
Facilities and Sustainability	1	2	2
Mission	2	2	3
Total Benefit Score	**7**	**10**	**13**

VA Recommendation

The VA Recommendation for the VISN 23 North Dakota Market COA is detailed below.

- Modernize by establishing a new RRTP in the vicinity of the Fargo VAMC

Cost Analysis

The Cost Analysis highlighted the estimated Present Value (PV) of each COA for the VISN 23 North Dakota Market across a 30-year horizon. The cost of the VA Recommendation COA ($8.6 B) was higher than the Status Quo COA ($8.0 B) and the Modernization COA ($8.5 B).

For the VISN 23 North Dakota Market, the VA Recommendation COA is $617.7 M (7.7%) more expensive than the Status Quo COA and $96.6 M (1.1%) more expensive than the Modernization COA. The cost difference between the VA Recommendation COA and Status Quo COA can be attributed to new facilities, closing or modernizing existing facilities, and scaling capacity of existing facilities up or down to meet future Veteran in-house demand to accommodate changes in demand.

The table below outlines the costs associated with each of the COAs. For more detail refer to Appendix A – VISN 23 North Dakota: Capital and Operational Costs Detail.

Table 134 – Total Cost Summary by COA

	Status Quo	Modernization	VA Recommendation
Total Costs (PV)	($7,974,828,543)	($8,495,925,883)	($8,592,556,737)
Capital Cost Variance vs. Status Quo	N/A	($521,097,340)	($617,728,194)
Operational Cost Variance vs. Status Quo	N/A	$0	$0

	Status Quo	Modernization	VA Recommendation
Non-VA Care Operational Cost Variance	N/A	$0	$0
VA Care Operational Cost Variance	N/A	$0	$0
Estimated Total Cost Variance vs. Status Quo	$0	($521,097,340)	($617,728,194)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	($96,630,854)

Benefit Analysis

This section describes the non-financial benefit analysis results for the VISN 23 North Dakota Market across five domains: Demand and Supply, Access, Quality, Facilities and Sustainability, and Mission. The results indicate that the VA Recommendation COA provides the most benefit (greatest Total Benefit Score) in comparison to the Status Quo and Modernization COAs.

Table 135 – Benefit Analysis Scores by COA

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3
Access	2	2	3
Quality	1	2	2
Facilities and Sustainability	1	2	2
Mission	2	2	3
Total Benefit Score	**7**	**10**	**13**

The scoring and rationale within each domain are described in the following sections. The data underlying the analysis is provided in Appendix B – VISN 23 North Dakota: Benefits Analysis Key Data. Additional information regarding the scoring methodology is provided in the CBA Methodology.

Demand and Supply

Within the Demand and Supply domain, the CBA considers how each COA impacts VA's ability to meet Veteran demand in the future. Each COA is assessed on two benefit components: (1) the ability to

balance demand and supply; (2) the changes to facility placement or service offerings that improve VA's ability to meet future demand.

The table below shows the scores for VISN 23 North Dakota for this domain.

Table 136 – Demand and Supply Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3

Status Quo: The COA received a score of 1 because at least one inpatient service line was over/under supplied, or more than 50% of specialties were inadequately supplied when compared to future Veteran in-house demand. Additionally, no changes to facilities or services were introduced that improve VA's ability to meet the future Veteran enrollee population (e.g., relocation or establishment of facilities in areas with greater Veteran demand, expansion of services).

Modernization: The COA received a score of 2 because, while Modernization right-sizes services to meet future Veteran in-house demand, the COA does not include changes to facilities or services that improve VA's ability to meet the future Veteran enrollee population (e.g., relocation or establishment of facilities in areas with greater Veteran demand, addition of new services).

VA Recommendation: The COA received a score of 3 because it right-sizes services to meet future Veteran enrollee demand and includes changes to facilities or services that improve VA's ability to meet future Veteran enrollee demand based on guidelines established in the CBA methodology. These changes include the following:

- Expands the Bismarck CBOC to a MS CBOC, adding specialty care services

Access

Within the Access domain, the CBA considers how each COA impacts Veteran access to care in the future. Each COA is assessed on the change in enrollee proximity to VA-provided primary care, specialty care, and outpatient mental health care.

The table below shows the CBA access scores for VISN 23 North Dakota for this domain.

Table 137 – Access Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Access	2	2	3

Note: the CBA Access domain score is based on enrollee proximity to VA-provided care only rather than the full high-performing integrated delivery network (inclusive of VA, Community Care Network providers, and non-Community Care Network providers meeting quality criteria). While a COA may have a reduced access score within the CBA, the Section 203 Criteria analysis shows that the VA Recommendation COA maintains or improves access to all service lines in the future high-performing integrated delivery network (HPIDN).

Status Quo: The COA received a score of 2 because access is maintained within 1% for VA-provided primary care, specialty care, and outpatient mental health care.

Modernization: The COA received a score of 2 because access is maintained within 1% for VA-provided primary care, specialty care, and outpatient mental health care.

VA Recommendation: The COA received a score of 3 because access to VA-provided primary care was maintained within 1%, specialty care increased 1% or more, and outpatient mental health care was maintained within 1%.

Quality

Within the Quality domain, the CBA considers how each COA impacts the quality of Veteran care in the future. Each COA is assessed based on two benefit components: (1) the ability of the main patient care facilities to support modern healthcare; (2) the ability of demand to support clinical competency.

The table below shows the scores for VISN 23 North Dakota for this domain.

Table 138 – Quality Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Quality	1	2	2

Status Quo: The COA received a score of 1 for two reasons. First, the COA includes main patient care facilities that were built prior to the emergence of modern healthcare design principles and specific standards to support modern medicine (e.g., floor-to-floor heights, corridor widths, columns spacing, and utility infrastructure requirements). Second, the COA includes facilities with projected future demand below VA planning guidelines for maintaining programs. VA's planning guidelines reflect that sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery.

Modernization: The COA received a score of 2 for two reasons. First, the COA replaces aged infrastructure with modern facilities that meet modern health care design standards. Modern facilities support current standards of care (e.g., PACT-enabled environment in the outpatient setting, single patient rooms in the inpatient setting) and utilization of technologies. They can also improve the experience for both Veterans and staff. Second, the COA includes facilities with projected future demand below VA planning guidelines for maintaining programs. VA's planning guidelines reflect that sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery.

VA Recommendation: The COA received a score of 2 for two reasons. First, the COA replaces aged infrastructure with modern facilities that meet modern health care design standards. Modern facilities support current standards of care (e.g., PACT-enabled environment in the outpatient setting, single patient rooms in the inpatient setting) and utilization of technologies. They can also improve the experience for both Veterans and staff. Second, the COA includes facilities with projected future demand below VA planning guidelines for maintaining programs. VA's planning guidelines reflect that sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery.

Facilities and Sustainability

Within the Facilities and Sustainability domain, the CBA considers how each COA impacts the sustainability of Veteran care in the future. Each COA is assessed based on two benefit components: (1)

the useful life of the main patient care facilities; (2) changes that strengthen VA's ability to recruit and retain providers.

The table below shows the scores for VISN 23 North Dakota for this domain.

Table 139 – Facilities and Sustainability Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Facilities and Sustainability	1	2	2

Note: The American Hospital Association estimates that a hospital's useful life, a measure which predicts the productive period of a typical capital asset before it becomes obsolete or needs replacement, is currently 40 years.

Status Quo: The COA received a score of 1 for two reasons. First, the COA includes at least one main patient care facility that exceeds its useful life as defined by the American Hospital Association, indicating it may be obsolete or need replacement. Second, the COA does not include changes that strengthen VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities).

Modernization: The COA received a score of 2 for two reasons. First, the COA replaces all main patient care facilities that have exceeded their useful life with modern facilities that can be sustained over the coming years. Second, while the COA includes modernized infrastructure, which may attract providers, it does not include additional changes to support VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities).

VA Recommendation: The COA received a score of 2 for two reasons. First, the COA replaces all main patient care facilities that have exceeded their useful life with modern facilities that can be sustained over the coming years. Second, while the COA includes modernized infrastructure, which may attract providers, it does not include additional changes to support VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities).

Mission

Within the Mission domain, the CBA considers how each COA impacts VA's ability to support its statutory missions of Education, Research, and Emergency Preparedness in the future. Each COA is assessed on three benefit components: (1) the impact on training programs; (2) the impact on research programs; (3) the impact on emergency preparedness.

A COA's overall score in the Mission domain is determined by the rounded average (unweighted) of its component (e.g., Education, Research, Emergency Preparedness) scores. The table below shows the scores for VISN 23 North Dakota for this domain.

Table 140 – Mission Scoring Summary

Subdomain	Status Quo	Modernization	VA Recommendation
Education	2	2	3
Research	2	2	3
Emergency Preparedness	2	2	2
Overall Mission Score (Rounded Average)	**2**	**2**	**3**

Status Quo: The COA received a score of 2 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 2 because it does not impact inpatient acute service lines and thus maintains existing training programs.
- **Research:** The COA received a score of 2 because all existing facilities with research programs are maintained.
- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

Modernization: The COA received a score of 2 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 2 because it does not impact inpatient acute service lines and thus maintains existing training programs.
- **Research:** The COA received a score of 2 because all existing facilities with research programs are maintained.
- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

VA Recommendation: The COA received a score of 3 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 3 because inpatient acute services remain VA-delivered and thus the COA maintains existing training programs. Additionally, the COA includes new (not replacement) infrastructure that creates new opportunities for training within the market.
- **Research:** The COA received a score of 3 because it maintains all research programs and builds new (not replacement) infrastructure to support additional research space.
- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

Sensitivity Analysis

A sensitivity analyses study shows how various sources of uncertainty in a mathematical model contribute to the model's overall uncertainty. The market is considered sensitive to a scenario when the VA Recommendation is no longer the leading COA due to changes in benefit scores, VA capital costs, VA operational costs, or non-VA operational costs.

The table below outlines the sensitivity analysis scenarios completed.

Table 141 – Sensitivity Analysis Scenarios

Sensitivity Analysis Scenarios
Increase Benefit Scores for Status Quo and Modernization in increments of one from 1 to 3 points
Increase VA Capital Costs in 50% increments from 0% to 300%
Increase VA Operational Costs in 50% increments from 0% to 300%
Increase Non-VA Operational Costs in 50% increments from 0% to 300%

Sensitivity Analysis Results Summary

In the VISN 23 North Dakota Market, one scenario changed the outcome of the CBA:

- Increasing the Modernization benefits score by three points

Sensitivity Analysis Full Results

The below tables show the results across all sensitivity analysis scenarios.

Table 142 – Sensitivity Analyses – Benefit Score Increase

Status Quo and Modernization Benefit Score Change	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
+0	1.14	0.85	0.66	VA Recommendation
+1	1.00	0.77	0.66	VA Recommendation
+2	0.89	0.71	0.66	VA Recommendation
+3	0.80	0.65	0.66	Modernization

Table 143 – Sensitivity Analyses – VA Capital Cost Increase

VA Capital Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.14	0.85	0.66	VA Recommendation
50%	1.16	0.89	0.70	VA Recommendation
100%	1.19	0.94	0.74	VA Recommendation
150%	1.22	0.98	0.77	VA Recommendation
200%	1.24	1.03	0.81	VA Recommendation
250%	1.27	1.07	0.85	VA Recommendation
300%	1.29	1.11	0.89	VA Recommendation

Table 144 – Sensitivity Analyses – VA Operational Cost Increase

VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.14	0.85	0.66	VA Recommendation
50%	1.41	1.04	0.81	VA Recommendation
100%	1.68	1.23	0.95	VA Recommendation
150%	1.96	1.42	1.10	VA Recommendation
200%	2.23	1.61	1.25	VA Recommendation
250%	2.50	1.80	1.40	VA Recommendation
300%	2.78	1.99	1.54	VA Recommendation

Table 145 – Sensitivity Analyses – Non-VA Operational Cost Increase

Non-VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.14	0.85	0.66	VA Recommendation
50%	1.41	1.04	0.81	VA Recommendation
100%	1.68	1.23	0.95	VA Recommendation
150%	1.95	1.42	1.10	VA Recommendation
200%	2.23	1.61	1.25	VA Recommendation
250%	2.50	1.80	1.39	VA Recommendation
300%	2.77	1.99	1.54	VA Recommendation

Appendix A – VISN 23 North Dakota: Capital and Operational Costs Detail

Table 146 – Capital Costs by COA

	Status Quo	Modernization	VA Recommendation
VAMC Ideal Square Footage	-	532,800	617,863
Build New GSF	-	360,396	423,406
Renovate In Place GSF	-	13,048	11,646
Matched Convert To GSF	-	33,217	34,619
Demolition GSF	-	498,422	498,422
Total Build New Cost	$0	($328,110,759)	($385,158,166)
Total Renovate In Place Cost	$0	($1,224,594)	($1,224,595)
Total Matched Convert To Cost	$0	($13,054,355)	($13,605,344)
Total Demolition Cost	$0	($17,807,353)	($17,807,353)
Total Lease Build-Out Cost	$0	($52,471,106)	($52,471,111)
Total New Lease Cost	$0	($160,736,037)	($160,736,126)
Total Existing Lease Cost	($27,574,473)	($27,574,348)	($27,574,473)
NRM Costs for Owned Facilities	($301,365,464)	($62,200,417)	($72,130,952)
FCA Correction Cost	($23,160,816)	N/A	N/A
Estimated Base Modernization Cost	($352,100,754)	($663,178,969)	($730,708,120)
Additional Common/Lobby Space Needed (GSF)	-	126,139	148,192
Cost of Additional Common/Lobby Space	$0	($99,345,537)	($116,714,660)
Additional Parking Cost	$0	($11,140,544)	($14,383,745)

	Status Quo	Modernization	VA Recommendation
Potential Land Acquisition Cost	$0	($2,443,055)	($3,277,475)
Seismic Correction Cost	$0	$0	$0
Non-Building FCA Correction Cost	($4,156,666)	($4,156,665)	($4,156,666)
Activation Costs	$0	($97,089,989)	($104,744,947)
Estimated Additional Costs for Modernization	($4,156,666)	($214,175,790)	($243,277,493)
Cost Adjustment: In-Progress Construction	N/A	N/A	$0
Cost Adjustment: In-Progress Lease	N/A	N/A	$0
Estimated Facilities Costs (PV)	($356,257,419)	($877,354,759)	($973,985,613)

Table 147 – Operational Costs by COA

	Status Quo	Modernization	VA Recommendation
VA Direct	($2,109,902,036)	($2,109,902,036)	($2,109,902,036)
Fixed Direct	($392,876,700)	($392,876,700)	($392,876,700)
VA Specific Direct	($49,708,540)	($49,708,540)	($49,708,540)
Indirect	($932,083,948)	($932,083,948)	($932,083,948)
VA Specific Indirect	($133,142,438)	($133,142,438)	($133,142,438)
Research and Education	($268,136)	($268,136)	($268,136)
VA Overhead	($199,502,203)	($199,502,203)	($199,502,203)
VA Care Operational Cost Total (PV)	($3,817,484,001)	($3,817,484,001)	($3,817,484,001)
CC Direct	($2,774,444,912)	($2,774,444,912)	($2,774,444,912)
Delivery and Operations	($125,395,393)	($125,395,393)	($125,395,393)

	Status Quo	Modernization	VA Recommendation
Care Coordination	($129,960,767)	($129,960,767)	($129,960,767)
CC Overhead	($164,144,578)	($164,144,578)	($164,144,578)
Admin PMPM	($607,141,472)	($607,141,472)	($607,141,472)
Non-VA Care Operational Cost Total (PV)	($3,801,087,122)	($3,801,087,122)	($3,801,087,122)
Estimated Operational Costs (PV)	($7,618,571,124)	($7,618,571,124)	($7,618,571,124)

Appendix B – VISN 23 North Dakota: Benefits Analysis Key Data

Below are key data points used in the benefit analysis, summarized in the above Benefit Analysis section.

Demand and Supply

Inpatient

Table 148 – Demand and Supply Key Data Points for Scoring – Inpatient (IP)

Service Line	100% of FY29 In-house Bed Need	120% of FY29 In-house Bed Need	Operating Beds	Supply Adequacy (within 100-120% of in-house demand)
IP CLC	36	43	38	Adequately Supplied
IP Med/Surg	19	23	26	Over Supplied
IP MH	9	10	9	Adequately Supplied

Note: Community Living Center (CLC); Medicine (Med); Surgery (Surg); Mental Health (MH)
Source: Enrollee Healthcare Projection Model Base Year 2019

Outpatient

Table 149 – Demand and Supply Key Data Points for Scoring – Outpatient (OP)

Physician Supply Adequacy	Count of Specialties	Percentage
Adequately Supplied	8	30%
Under Supplied	19	70%

Note: VA supply in the Status Quo COA is quantitatively evaluated based on the data above. It is assumed the Modernization COA scales the capacity of existing facilities up or down to meet future Veteran in-house demand. Similar to the Modernization COA, it is assumed the VA Recommendation COA scales the capacity of existing and proposed facilities up or down to meet future Veteran in-house demand. However, the VA Recommendation COA may account for factors that demand projections do not consider that may shift the future balance of in-house and community workload, such as:

- Areas with unmet Veteran demand that may warrant a net new point of care
- Low-census inpatient acute programs that may pose risks to quality and training programs, potentially warranting a shift to community providers
- Community capacity factors that may warrant changes to VA capacity

Source: Office of Productivity, Efficiency and Staffing 2019 Capacity Report

Table 150 – New Facility Demand Guidelines

Facility or Service	Guideline
Inpatient Acute VAMCs	Greater than or equal to 35,000 overlapping enrollees
Inpatient CLC	Greater than or equal to 21,000 overlapping enrollees
Health Care Center	Greater than or equal to 34,000 overlapping enrollees
MS CBOC	Greater than or equal to 4,300 non-overlapping enrollees
CBOC	Greater than or equal to 2,500 non-overlapping enrollees

Note: The above guidelines are used to determine whether a new (not replacement) point of care or service proposed in the VA recommendation had adequate demand.

Access

Table 151 – Access Key Data Points for Scoring

COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of VA-provided OP Mental Health	59.4%	59.4%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of VA-provided OP Primary Care	62.1%	62.1%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of VA-provided OP Specialty Care	26.5%	26.5%	Maintained within 1%

COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	85.2%	85.2%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	96.1%	96.1%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Mental Health	59.4%	59.4%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Primary Care	62.1%	62.1%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of VA-provided OP Specialty Care	26.5%	26.5%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	85.2%	85.2%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	96.1%	96.1%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Mental Health	59.4%	59.4%	Maintained within 1%

COA	Measure	Current	Future	Result
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Primary Care	62.1%	62.1%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of VA-provided OP Specialty Care	26.5%	38.6%	Increased 1% or more
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	85.2%	85.4%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	96.1%	97.2%	Increased 1% or more
VA Recommendation	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%

Note: the CBA Access domain score is based on enrollee proximity to VA-provided care only rather than the full high-performing integrated delivery network (HPIDN) (inclusive of VA, Community Care Network, and non-Community Care Network providers meeting quality criteria). While a COA may have a reduced access score within the CBA, the Section 203 Criteria analysis shows that the VA Recommendation COA maintains or improves access to all service lines in the future HPIDN. The table above shows the results for enrollee proximity to the full HPIDN as well as to VA-provided care in the market.

Source: Enrollee data from the FY19 Geocoded Enrollee File. Existing VA facility location data from VAST. Commercial provider location data from Definitive Healthcare.

Quality

Main Patient Care Facility Construction Date

Table 152 – Quality Key Data Points for Scoring – Age

Facility	Main Patient Care Facility Construction Date	Built Pre-1970?
(V23) (437) Fargo	1929	Yes

Source: Main patient care facility construction and renovation dates from CAI Buildings and FCA Condition Gaps Reports 9-14-2020

Inpatient Acute Demand

Table 153 – Quality Key Data Points for Scoring – Inpatient Acute Demand

Facility	Service	Demand Guideline	Meets or Exceeds Guideline?	VA Recommendation
(V23) (437) Fargo	IP Med	20 ADC	No	Maintain
(V23) (437) Fargo	IP Surg	1,600 Cases	Yes	Maintain
(V23) (437) Fargo	IP MH	8 ADC	No	Maintain

Note: The Status Quo and Modernization COAs are assumed to maintain all current facilities and services. The VA Recommendation COA proposes maintaining, partnering, and divesting of services at each facility, shown in the last column titled "VA Recommendation". To score a 3, the VA recommendation must partner or divest of all low-demand services.

Source: FY 2029 average daily census for inpatient services is based on Enrollee Healthcare Projection Model Base Year 2019. 2019 Total Surgical Cases is from the VA National Surgery Office.

Facilities and Sustainability

Table 154 – Facilities and Sustainability Key Data Points for Scoring

Facility	Main Patient Care Facility Construction Date	Most Recent Main Patient Care Facility Renovation Date	Exceeds Useful Life?
(V23) (437) Fargo	1929	1992	Yes

Note: Exceeding useful life is defined as 1) When a main patient care facility was built before 1970 it has exceeded its useful life, even if it has undergone major renovation in the last 40 years. 2) When a main patient care facility was built after 1970 but is still more than 40 years old (built on or after 1971 and before 1989), it must have undergone major renovation within the last 40 years to not exceed its useful life. 3) When a main patient care facility was built in or after 1989, it has not exceeded its useful life.

Source: From CAI Buildings and FCA Condition Gaps Reports 9-14-2020

Table 155 – Key Data Points for Scoring - Recruitment and Retention

Facility	Expands VA's Ability to Recruit/Retain?
N/A	N/A

Mission

Table 156 – Mission Key Data Points for Scoring

The Status Quo and Modernization COAs are assumed to have no impact on VA's statutory missions. The impact of the VA Recommendation on VA's statutory missions is shown in the table below:

Facility	Training Impact	Research Impact	4th Mission Impact	Market Plan Includes New Facilities/Services To Increase Training/Research Opportunities
(V23) (437) Fargo	No impact on training	Maintains or Has Plan to Transition	No PRC Designation	Increases Research Opportunities, Increases Training Opportunities

VISN 23 South Dakota East

The recommendations for modernization and realignment of VHA infrastructure submitted by the Secretary of the Department of Veterans Affairs to the Asset and Infrastructure Review (AIR) Commission are focused on allowing VA to provide accessible, timely, and high-quality health care for Veterans now and in the future. To inform the recommendations, VA conducted a Cost Benefit Analysis (CBA) that examines the cost-efficiency and benefits to Veterans of various courses of action (COAs) within each market. The CBA compares the costs and benefits associated with maintaining the current facilities, modernizing the current facilities, or strategically realigning and modernizing facilities in each market to inform the identification of a preferred COA.

The CBA aligns with requirements outlined in Section 1703C of Title 38, United States Code (U.S.C.), as added by Section 203 of the VA MISSION Act of 2018.

> *VA MISSION Act, Section 203(2)(F)*
>
> *"In making recommendations under this subsection, the Secretary shall consider…the extent and timing of potential costs and savings, including the number of years such costs or savings will be incurred, beginning with the date of completion of the proposed recommendation."*

This CBA summary document defines the COAs, provides a brief overview of the methodology, and outlines the results of the CBA and the associated sensitivity analysis.

Overview of COAs and Methodology

The Cost Benefit Analysis (CBA) reviews, analyzes, and compares the costs and benefits of three distinct courses of action (COA):

- maintaining VA's current facilities assuming no changes or additional modernization to current facilities, programs, and infrastructure (COA Name: Status Quo)
- modernizing the current facilities without strategically realigning facilities (COA Name: Modernization)
- strategically realigning and modernizing facilities (COA Name: VA Recommendation to the AIR Commission)

To evaluate these courses of action, VA examined the combined cost and benefits of each COA for each market. The CBA was conducted at the market level, rather than at the facility level, to allow for a holistic assessment of a COA's impact that considers optimization of the market across all health care facilities. The financial costs were assessed using a Present Value (PV) analysis while the non-financial benefits were assessed using a Benefits Analysis Scoring process. Ultimately, the CBA results in a Cost-Benefit Index – a simple metric by which to compare the combined cost and non-financial benefits associated with each COA. The CBI equals the total life-cycle cost (PV) of each COA in PV dollars, divided by the Benefits Analysis score for that COA's non-financial benefits normalized to the billions place. The COA with the lowest CBI score is the preferred COA.

Summary of Results

The VA Recommendation COA is the leading COA analyzed in the VISN 23 South Dakota East Market due to its leading Cost Benefit Index (CBI) score. The CBI score for the VA Recommendation COA (0.56) is 40.8% lower than the Status Quo COA (0.94) and 20.6% lower than the Modernization COA (0.70).

The VA Recommendation COA is $103.2 M (1.6%) more expensive than the Status Quo COA and $328.1 M (4.7%) less expensive than the Modernization COA. While the VA Recommendation COA increases cost compared to the Status Quo COA and decreases costs compared to the Modernization COA, it also increases benefits as seen by a 12-point benefits score compared to 7 for the Status Quo COA and 10 for the Modernization COA.

The tables below detail the present values, benefit scores, and CBIs for each COA.

Table 157 – CBI Scores by COA

	Status Quo	Modernization	VA Recommendation
COA PV ($)	($6,577,694,461)	($7,008,947,752)	($6,680,882,833)
Benefit Analysis Score	7	10	12
CBI (Normalized in $Billions)	0.94	0.70	0.56
CBI % Change vs. Status Quo	N/A	-25.4%	-40.8%
CBI % Change vs. Modernization	N/A	N/A	-20.6%

Table 158 – Cost Analysis Cost Variance by COA

Cost Variance	Status Quo	Modernization	VA Recommendation
Capital Cost Variance vs. Status Quo	N/A	($431,253,290)	($412,013,636)
Operational Cost Variance vs. Status Quo	N/A	$0	$308,825,264
Estimated Total Cost Variance vs. Status Quo	N/A	($431,253,290)	($103,188,372)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	$328,064,919

Note: Operational unit costs were provided at the parent facility level not at the facility level. Therefore, the analysis does not estimate the changes in operational costs stemming from new, expanded, or removed points of care (POC). The analysis only shows changes to operational costs when a service line is shifted, at the parent facility level, from VA care to non-VA care.

Table 159 – Benefit Analysis Scores by COA

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3
Access	2	2	1
Quality	1	2	2
Facilities and Sustainability	1	2	3
Mission	2	2	3
Total Benefit Score	**7**	**10**	**12**

VA Recommendation

The VA Recommendation for the VISN 23 South Dakota East Market COA is detailed below.

- Modernize and realign the Sioux Falls VAMC by:
  - Establishing a strategic collaboration to provide inpatient medical and surgical services and discontinuing those services at the Sioux Falls VAMC. If unable to enter into a strategic collaboration, utilize community providers
  - Converting the emergency department at the Sioux Falls VAMC into an urgent care center
  - Modernizing the CLC at the Sioux Falls VAMC
- Modernize and realign outpatient facilities in the market by relocating all services at the Wagner OOS and closing the Wagner OOS

Cost Analysis

The Cost Analysis highlighted the estimated Present Value (PV) of each COA for the VISN 23 South Dakota East Market across a 30-year horizon. The cost of the VA Recommendation COA ($6.7 B) was higher than the Status Quo COA ($6.6 B) and lower than the Modernization COA ($7.0 B).

For the VISN 23 South Dakota East Market, the VA Recommendation COA is $103.2 M (1.6%) more expensive than the Status Quo COA and $328.1 M (4.7%) less expensive than the Modernization COA. The cost difference between the VA Recommendation COA and Status Quo COA can be attributed to new facilities, closing or modernizing existing facilities, and scaling capacity of existing facilities up or down to meet future Veteran in-house demand to accommodate changes in demand.

The table below outlines the costs associated with each of the COAs. For more detail refer to Appendix A – VISN 23 South Dakota East: Capital and Operational Costs Detail.

Table 160 – Total Cost Summary by COA

	Status Quo	Modernization	VA Recommendation
Total Costs (PV)	($6,577,694,461)	($7,008,947,752)	($6,680,882,833)
Capital Cost Variance vs. Status Quo	N/A	($431,253,290)	($412,013,636)
Operational Cost Variance vs. Status Quo	N/A	$0	$308,825,264
Non-VA Care Operational Cost Variance	N/A	$0	($298,568,269)
VA Care Operational Cost Variance	N/A	$0	$607,393,533
Estimated Total Cost Variance vs. Status Quo	N/A	($431,253,290)	($103,188,372)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	$328,064,919

Benefit Analysis

This section describes the non-financial benefit analysis results for the VISN 23 South Dakota East Market across five domains: Demand and Supply, Access, Quality, Facilities and Sustainability, and Mission. The results indicate that the VA Recommendation COA and Modernization COA provide the most benefit (greatest Total Benefit Score) in comparison to the Status Quo COA.

Table 161 – Benefit Analysis Scores by COA

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3
Access	2	2	1
Quality	1	2	2
Facilities and Sustainability	1	2	3
Mission	2	2	3

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Total Benefit Score	**7**	**10**	**12**

The scoring and rationale within each domain are described in the following sections. The data underlying the analysis is provided in Appendix B – VISN 23 South Dakota East: Benefits Analysis Key Data. Additional information regarding the scoring methodology is provided in the CBA Methodology.

Demand and Supply

Within the Demand and Supply domain, the CBA considers how each COA impacts VA's ability to meet Veteran demand in the future. Each COA is assessed on two benefit components: (1) the ability to balance demand and supply; (2) the changes to facility placement or service offerings that improve VA's ability to meet future demand.

The table below shows the scores for VISN 23 South Dakota East for this domain.

Table 162 – Demand and Supply Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3

Status Quo: The COA received a score of 1 because at least one inpatient service line was over/under supplied, or more than 50% of specialties were inadequately supplied when compared to future Veteran in-house demand. Additionally, no changes to facilities or services were introduced that improve VA's ability to meet the future Veteran enrollee population (e.g., relocation or establishment of facilities in areas with greater Veteran demand, expansion of services).

Modernization: The COA received a score of 2 because, while Modernization right-sizes services to meet future Veteran in-house demand, the COA does not include changes to facilities or services that improve VA's ability to meet the future Veteran enrollee population (e.g., relocation or establishment of facilities in areas with greater Veteran demand, addition of new services).

VA Recommendation: The COA received a score of 3 because it right-sizes services to meet future Veteran enrollee demand and includes changes to facilities or services that improve VA's ability to meet future Veteran enrollee demand based on guidelines established in the CBA methodology. These changes include the following:

- Expands the Sioux City CBOC to a MS CBOC, adding specialty care services
- Establishes the new Sioux Falls inpatient medicine and surgery partnership

Access

Within the Access domain, the CBA considers how each COA impacts Veteran access to care in the future. Each COA is assessed on the change in enrollee proximity to VA-provided primary care, specialty care, and outpatient mental health care.

The table below shows the CBA access scores for VISN 23 South Dakota East for this domain.

Table 163 – Access Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Access	2	2	1

Note: the CBA Access domain score is based on enrollee proximity to VA-provided care only rather than the full high-performing integrated delivery network (inclusive of VA, Community Care Network providers, and non-Community Care Network providers meeting quality criteria). While a COA may have a reduced access score within the CBA, the Section 203 Criteria analysis shows that the VA Recommendation COA maintains or improves access to all service lines in the future high-performing integrated delivery network (HPIDN).

Status Quo: The COA received a score of 2 because access is maintained within 1% for VA-provided primary care, specialty care, and outpatient mental health care.

Modernization: The COA received a score of 2 because access is maintained within 1% for VA-provided primary care, specialty care, and outpatient mental health care.

VA Recommendation: The COA received a score of 1 because access to VA-provided primary care decreased 1% or more, specialty care increased 1% or more, and outpatient mental health care was maintained within 1%.

Quality

Within the Quality domain, the CBA considers how each COA impacts the quality of Veteran care in the future. Each COA is assessed based on two benefit components: (1) the ability of the main patient care facilities to support modern healthcare; (2) the ability of demand to support clinical competency.

The table below shows the scores for VISN 23 South Dakota East for this domain.

Table 164 – Quality Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Quality	1	2	2

Status Quo: The COA received a score of 1 for two reasons. First, the COA includes main patient care facilities that were built prior to the emergence of modern healthcare design principles and specific standards to support modern medicine (e.g., floor-to-floor heights, corridor widths, columns spacing, and utility infrastructure requirements). Second, the COA includes facilities with projected future demand below VA planning guidelines for maintaining programs. VA's planning guidelines reflect that sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery.

Modernization: The COA received a score of 2 for two reasons. First, the COA replaces aged infrastructure with modern facilities that meet modern health care design standards. Modern facilities support current standards of care (e.g., PACT-enabled environment in the outpatient setting, single patient rooms in the inpatient setting) and utilization of technologies. They can also improve the experience for both Veterans and staff. Second, the COA includes facilities with projected future demand below VA planning guidelines for maintaining programs. VA's planning guidelines reflect that

sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery.

VA Recommendation: The COA received a score of 2 for two reasons. First, the COA replaces aged infrastructure with modern facilities that meet modern health care design standards. Modern facilities support current standards of care (e.g., PACT-enabled environment in the outpatient setting, single patient rooms in the inpatient setting) and utilization of technologies. They can also improve the experience for both Veterans and staff. Second, the COA includes facilities with projected future demand below VA planning guidelines for maintaining programs. VA's planning guidelines reflect that sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery.

Facilities and Sustainability

Within the Facilities and Sustainability domain, the CBA considers how each COA impacts the sustainability of Veteran care in the future. Each COA is assessed based on two benefit components: (1) the useful life of the main patient care facilities; (2) changes that strengthen VA's ability to recruit and retain providers.

The table below shows the scores for VISN 23 South Dakota East for this domain.

Table 165 **–** ***Facilities and Sustainability Scoring Summary***

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Facilities and Sustainability	1	2	3

Status Quo: The COA received a score of 1 for two reasons. First, the COA includes at least one main patient care facility that exceeds its useful life as defined by the American Hospital Association, indicating it may be obsolete or need replacement. Second, the COA does not include changes that strengthen VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities).

Modernization: The COA received a score of 2 for two reasons. First, the COA replaces all main patient care facilities that have exceeded their useful life with modern facilities that can be sustained over the coming years. Second, while the COA includes modernized infrastructure, which may attract providers, it does not include additional changes to support VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities).

VA Recommendation: The COA received a score of 3 for two reasons. First, the COA replaces all main patient care facilities that have exceeded their useful life with modern facilities that can be sustained over the coming years. Second, in addition to modernized infrastructure which may attract providers, it also includes additional changes to support VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities). The COA includes the following action to support VA's ability to recruit or retain providers:

- Establishes the new Sioux Falls inpatient medicine and surgery partnership

Mission

Within the Mission domain, the CBA considers how each COA impacts VA's ability to support its statutory missions of Education, Research, and Emergency Preparedness in the future. Each COA is assessed on three benefit components: (1) the impact on training programs; (2) the impact on research programs; (3) the impact on emergency preparedness.

A COA's overall score in the Mission domain is determined by the rounded average (unweighted) of its component (e.g., Education, Research, Emergency Preparedness) scores. The table below shows the scores for VISN 23 South Dakota East for this domain.

Table 166 – Mission Scoring Summary

Subdomain	Status Quo	Modernization	VA Recommendation
Education	2	2	3
Research	2	2	3
Emergency Preparedness	2	2	2
Overall Mission Score (Rounded Average)	**2**	**2**	**3**

Status Quo: The COA received a score of 2 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 2 because it does not impact inpatient acute service lines and thus maintains existing training programs.
- **Research:** The COA received a score of 2 because all existing facilities with research programs are maintained.
- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

Modernization: The COA received a score of 2 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 2 because it does not impact inpatient acute service lines and thus maintains existing training programs.
- **Research:** The COA received a score of 2 because all existing facilities with research programs are maintained.
- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

VA Recommendation: The COA received a score of 3 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 3 because inpatient acute services remain VA-delivered and thus the COA maintains existing training programs. Additionally, the COA includes new (not replacement) infrastructure that creates new opportunities for training within the market.
- **Research:** The COA received a score of 3 because it maintains all research programs and builds new (not replacement) infrastructure to support additional research space.

- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

Sensitivity Analysis

A sensitivity analyses study shows how various sources of uncertainty in a mathematical model contribute to the model's overall uncertainty. The market is considered sensitive to a scenario when the VA Recommendation is no longer the leading COA due to changes in benefit scores, VA capital costs, VA operational costs, or non-VA operational costs.

The table below outlines the sensitivity analysis scenarios completed.

Table 167 – Sensitivity Analysis Scenarios

Sensitivity Analysis Scenarios
Increase Benefit Scores for Status Quo and Modernization in increments of one from 1 to 3 points
Increase VA Capital Costs in 50% increments from 0% to 300%
Increase VA Operational Costs in 50% increments from 0% to 300%
Increase Non-VA Operational Costs in 50% increments from 0% to 300%

Sensitivity Analysis Results Summary

In the VISN 23 South Dakota East Market, one scenario changed the outcome of the CBA:

- Increasing the Modernization benefits score by three points

Sensitivity Analysis Full Results

The below tables show the results across all sensitivity analysis scenarios.

Table 168 – Sensitivity Analyses – Benefit Score Increase

Status Quo and Modernization Benefit Score Change	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
+0	0.94	0.70	0.56	VA Recommendation
+1	0.82	0.64	0.56	VA Recommendation
+2	0.73	0.58	0.56	VA Recommendation

Status Quo and Modernization Benefit Score Change	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
+3	0.66	0.54	0.56	Modernization

Table 169 – Sensitivity Analyses – VA Capital Cost Increase

VA Capital Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	0.94	0.70	0.56	VA Recommendation
50%	0.97	0.75	0.59	VA Recommendation
100%	1.01	0.79	0.63	VA Recommendation
150%	1.04	0.84	0.67	VA Recommendation
200%	1.07	0.88	0.70	VA Recommendation
250%	1.11	0.92	0.74	VA Recommendation
300%	1.14	0.97	0.78	VA Recommendation

Table 170 – Sensitivity Analyses – VA Operational Cost Increase

VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	0.94	0.70	0.56	VA Recommendation
50%	1.19	0.87	0.67	VA Recommendation
100%	1.43	1.04	0.79	VA Recommendation

VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
150%	1.68	1.22	0.91	VA Recommendation
200%	1.92	1.39	1.03	VA Recommendation
250%	2.17	1.56	1.15	VA Recommendation
300%	2.41	1.73	1.26	VA Recommendation

Table 171 – Sensitivity Analyses – Non-VA Operational Cost Increase

Non-VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	0.94	0.70	0.56	VA Recommendation
50%	1.13	0.83	0.68	VA Recommendation
100%	1.32	0.97	0.80	VA Recommendation
150%	1.51	1.10	0.93	VA Recommendation
200%	1.70	1.24	1.05	VA Recommendation
250%	1.89	1.37	1.18	VA Recommendation
300%	2.09	1.50	1.30	VA Recommendation

Appendix A – VISN 23 South Dakota East: Capital and Operational Costs Detail

Table 172 – Capital Costs by COA

	Status Quo	Modernization	VA Recommendation
VAMC Ideal Square Footage	-	659,848	647,878
Build New GSF	-	446,435	439,844
Renovate In Place GSF	-	12,645	12,747
Matched Convert To GSF	-	44,516	41,342
Demolition GSF	-	488,895	491,967
Total Build New Cost	$0	($402,539,352)	($396,134,704)
Total Renovate In Place Cost	$0	($4,623,171)	($4,662,822)
Total Matched Convert To Cost	$0	($17,304,724)	($16,070,895)
Total Demolition Cost	$0	($17,277,130)	($17,335,498)
Total Lease Build-Out Cost	$0	($25,649,627)	($25,649,630)
Total New Lease Cost	$0	($75,818,279)	($75,818,328)
Total Existing Lease Cost	($23,571,186)	($23,571,174)	($23,571,186)
NRM Costs for Owned Facilities	($389,960,762)	($77,032,408)	($75,635,016)
FCA Correction Cost	($44,971,423)	N/A	N/A
Estimated Base Modernization Cost	($458,503,372)	($643,815,865)	($634,878,079)
Additional Common/Lobby Space Needed (GSF)	-	156,252	153,945
Cost of Additional Common/Lobby Space	$0	($121,725,116)	($119,928,013)
Additional Parking Cost	$0	($13,471,449)	($13,054,706)

	Status Quo	Modernization	VA Recommendation
Potential Land Acquisition Cost	$0	($4,169,672)	($3,485,645)
Seismic Correction Cost	($119,718)	($119,718)	($119,718)
Non-Building FCA Correction Cost	($6,456,807)	($6,456,807)	($6,456,807)
Activation Costs	$0	($106,574,561)	($99,170,565)
Estimated Additional Costs for Modernization	($6,576,526)	($252,517,323)	($242,215,454)
Cost Adjustment: In-Progress Construction	N/A	N/A	$0
Cost Adjustment: In-Progress Lease	N/A	N/A	$0
Estimated Facilities Costs (PV)	($465,079,897)	($896,333,188)	($877,093,533)

Table 173 – Operational Costs by COA

	Status Quo	Modernization	VA Recommendation
VA Direct	($1,947,893,540)	($1,947,893,540)	($1,591,632,257)
Fixed Direct	($221,927,870)	($221,927,870)	($184,176,457)
VA Specific Direct	($50,359,914)	($50,359,914)	($44,331,783)
Indirect	($921,965,229)	($921,965,229)	($768,225,932)
VA Specific Indirect	($112,612,124)	($112,612,124)	($91,926,262)
Research and Education	($395,180)	($395,180)	($395,180)
VA Overhead	($182,720,001)	($182,720,001)	($149,792,453)
VA Care Operational Cost Total (PV)	($3,437,873,857)	($3,437,873,857)	($2,830,480,324)
CC Direct	($1,871,640,937)	($1,871,640,937)	($2,171,611,168)
Delivery and Operations	($84,388,284)	($84,388,284)	($92,347,798)

	Status Quo	Modernization	VA Recommendation
Care Coordination	($86,840,434)	($86,840,434)	($94,502,439)
CC Overhead	($109,319,173)	($109,319,173)	($119,969,231)
Admin PMPM	($522,551,879)	($522,551,879)	($494,878,339)
Non-VA Care Operational Cost Total (PV)	($2,674,740,706)	($2,674,740,706)	($2,973,308,975)
Estimated Operational Costs (PV)	($6,112,614,564)	($6,112,614,564)	($5,803,789,299)

Appendix B – VISN 23 South Dakota East: Benefits Analysis Key Data

Below are key data points used in the benefit analysis, summarized in the above Benefit Analysis section.

Demand and Supply

Inpatient

Table 174 – Demand and Supply Key Data Points for Scoring – Inpatient (IP)

Service Line	100% of FY29 In-house Bed Need	120% of FY29 In-house Bed Need	Operating Beds	Supply Adequacy (within 100-120% of in-house demand)
IP CLC	55	66	58	Adequately Supplied
IP Med/Surg	17	21	34	Over Supplied
IP MH	6	7	6	Adequately Supplied

Note: Community Living Center (CLC); Medicine (Med); Surgery (Surg); Mental Health (MH)

Source: Enrollee Healthcare Projection Model Base Year 2019

Outpatient

Table 175 – Demand and Supply Key Data Points for Scoring – Outpatient (OP)

Physician Supply Adequacy	Count of Specialties	Percentage
Adequately Supplied	9	33%
Under Supplied	18	67%

Note: VA supply in the Status Quo COA is quantitatively evaluated based on the data above. It is assumed the Modernization COA scales the capacity of existing facilities up or down to meet future Veteran in-house demand. Similar to the Modernization COA, it is assumed the VA Recommendation COA scales the capacity of existing and proposed facilities up or down to meet future Veteran in-house demand. However, the VA Recommendation COA may account for factors that demand projections do not consider that may shift the future balance of in-house and community workload, such as:

- Areas with unmet Veteran demand that may warrant a net new point of care
- Low-census inpatient acute programs that may pose risks to quality and training programs, potentially warranting a shift to community providers
- Community capacity factors that may warrant changes to VA capacity

Source: Office of Productivity, Efficiency and Staffing 2019 Capacity Report

Table 176 – New Facility Demand Guidelines

Facility or Service	Guideline
Inpatient Acute VAMCs	Greater than or equal to 35,000 overlapping enrollees
Inpatient CLC	Greater than or equal to 21,000 overlapping enrollees
Health Care Center	Greater than or equal to 34,000 overlapping enrollees
MS CBOC	Greater than or equal to 4,300 non-overlapping enrollees
CBOC	Greater than or equal to 2,500 non-overlapping enrollees

Note: The above guidelines are used to determine whether a new (not replacement) point of care or service proposed in the VA recommendation had adequate demand.

Access

Table 177 – Access Key Data Points for Scoring

COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of VA-provided OP Mental Health	53.1%	53.1%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of VA-provided OP Primary Care	55.9%	55.9%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of VA-provided OP Specialty Care	51.0%	51.0%	Maintained within 1%

COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	91.7%	91.7%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.1%	99.1%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Mental Health	53.1%	53.1%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Primary Care	55.9%	55.9%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of VA-provided OP Specialty Care	51.0%	51.0%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	91.7%	91.7%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.1%	99.1%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Mental Health	53.1%	53.1%	Maintained within 1%

COA	Measure	Current	Future	Result
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Primary Care	55.9%	54.5%	Decreased 1% or more
VA Recommendation	% of enrollees within 60 minutes of VA-provided OP Specialty Care	51.0%	66.6%	Increased 1% or more
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	91.7%	91.7%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.1%	99.1%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%

Note: the CBA Access domain score is based on enrollee proximity to VA-provided care only rather than the full high-performing integrated delivery network (HPIDN) (inclusive of VA, Community Care Network, and non-Community Care Network providers meeting quality criteria). While a COA may have a reduced access score within the CBA, the Section 203 Criteria analysis shows that the VA Recommendation COA maintains or improves access to all service lines in the future HPIDN. The table above shows the results for enrollee proximity to the full HPIDN as well as to VA-provided care in the market.

Source: Enrollee data from the FY19 Geocoded Enrollee File. Existing VA facility location data from VAST. Commercial provider location data from Definitive Healthcare.

Quality

Main Patient Care Facility Construction Date

Table 178 – Quality Key Data Points for Scoring – Age

Facility	Main Patient Care Facility Construction Date	Built Pre-1970?
(V23) (438) Sioux Falls	1948	Yes

Source: Main patient care facility construction and renovation dates from CAI Buildings and FCA Condition Gaps Reports 9-14-2020

Inpatient Acute Demand

Table 179 – Quality Key Data Points for Scoring – Inpatient Acute Demand

Facility	Service	Demand Guideline	Meets or Exceeds Guideline?	VA Recommendation
(V23) (438) Sioux Falls	IP Med	20 ADC	No	Partner (VA Delivered)
(V23) (438) Sioux Falls	IP Surg	1,600 Cases	Yes	Partner (VA Delivered)
(V23) (438) Sioux Falls	IP MH	8 ADC	No	Maintain

Note: The Status Quo and Modernization COAs are assumed to maintain all current facilities and services. The VA Recommendation COA proposes maintaining, partnering, and divesting of services at each facility, shown in the last column titled "VA Recommendation". To score a 3, the VA recommendation must partner or divest of all low-demand services.

Source: FY 2029 average daily census for inpatient services is based on Enrollee Healthcare Projection Model Base Year 2019. 2019 Total Surgical Cases is from the VA National Surgery Office.

Facilities and Sustainability

Table 180 – Facilities and Sustainability Key Data Points for Scoring

Facility	Main Patient Care Facility Construction Date	Most Recent Main Patient Care Facility Renovation Date	Exceeds Useful Life?
(V23) (438) Sioux Falls	1948	2009	Yes

Note: Exceeding useful life is defined as 1) When a main patient care facility was built before 1970 it has exceeded its useful life, even if it has undergone major renovation in the last 40 years. 2) When a main patient care facility was built after 1970 but is still more than 40 years old (built on or after 1971 and before 1989), it must have undergone major renovation within the last 40 years to not exceed its useful life. 3) When a main patient care facility was built in or after 1989, it has not exceeded its useful life.

Source: From CAI Buildings and FCA Condition Gaps Reports 9-14-2020

Table 181 – Key Data Points for Scoring - Recruitment and Retention

Facility	Expands VA's Ability to Recruit/Retain?
Sioux Falls IP Partnership	Yes

Mission

Table 182 – Mission Key Data Points for Scoring

The Status Quo and Modernization COAs are assumed to have no impact on VA's statutory missions. The impact of the VA Recommendation on VA's statutory missions is shown in the table below:

Facility	Training Impact	Research Impact	4th Mission Impact	Market Plan Includes New Facilities/Services To Increase Training/Research Opportunities
(V23) (438) Sioux Falls	No impact on training	Maintains or Has Plan to Transition	No PRC Designation	Increases Research Opportunities, Increases Training Opportunities

VISN 23 South Dakota West

The recommendations for modernization and realignment of VHA infrastructure submitted by the Secretary of the Department of Veterans Affairs to the Asset and Infrastructure Review (AIR) Commission are focused on allowing VA to provide accessible, timely, and high-quality health care for Veterans now and in the future. To inform the recommendations, VA conducted a Cost Benefit Analysis (CBA) that examines the cost-efficiency and benefits to Veterans of various courses of action (COAs) within each market. The CBA compares the costs and benefits associated with maintaining the current facilities, modernizing the current facilities, or strategically realigning and modernizing facilities in each market to inform the identification of a preferred COA.

The CBA aligns with requirements outlined in Section 1703C of Title 38, United States Code (U.S.C.), as added by Section 203 of the VA MISSION Act of 2018.

> *VA MISSION Act, Section 203(2)(F)*
>
> *"In making recommendations under this subsection, the Secretary shall consider…the extent and timing of potential costs and savings, including the number of years such costs or savings will be incurred, beginning with the date of completion of the proposed recommendation."*

This CBA summary document defines the COAs, provides a brief overview of the methodology, and outlines the results of the CBA and the associated sensitivity analysis.

Overview of COAs and Methodology

The Cost Benefit Analysis (CBA) reviews, analyzes, and compares the costs and benefits of three distinct courses of action (COA):

- maintaining VA's current facilities assuming no changes or additional modernization to current facilities, programs, and infrastructure (COA Name: Status Quo)
- modernizing the current facilities without strategically realigning facilities (COA Name: Modernization)
- strategically realigning and modernizing facilities (COA Name: VA Recommendation to the AIR Commission)

To evaluate these courses of action, VA examined the combined cost and benefits of each COA for each market. The CBA was conducted at the market level, rather than at the facility level, to allow for a holistic assessment of a COA's impact that considers optimization of the market across all health care facilities. The financial costs were assessed using a Present Value (PV) analysis while the non-financial benefits were assessed using a Benefits Analysis Scoring process. Ultimately, the CBA results in a Cost-Benefit Index – a simple metric by which to compare the combined cost and non-financial benefits associated with each COA. The CBI equals the total life-cycle cost (PV) of each COA in PV dollars, divided by the Benefits Analysis score for that COA's non-financial benefits normalized to the billions place. The COA with the lowest CBI score is the preferred COA.

Summary of Results

The VA Recommendation COA is the leading COA analyzed in the VISN 23 South Dakota West Market due to its leading Cost Benefit Index (CBI) score. The CBI score for the VA Recommendation COA (0.43) is 52.4% lower than the Status Quo COA (0.90) and 32.3% lower than the Modernization COA (0.63).

The VA Recommendation COA is $303.9 M (4.8%) less expensive than the Status Quo COA and $331.2 M (5.2%) less expensive than the Modernization COA. While the VA Recommendation COA decreases cost compared to the Status Quo and Modernization COAs, it also increases benefits as seen by a 14-point benefits score compared to 7 for the Status Quo COA and 10 for the Modernization COA.

The tables below detail the present values, benefit scores, and CBIs for each COA.

Table 183 – CBI Scores by COA

	Status Quo	Modernization	VA Recommendation
COA PV ($)	($6,304,781,704)	($6,332,079,294)	($6,000,862,977)
Benefit Analysis Score	7	10	14
CBI (Normalized in $Billions)	0.90	0.63	0.43
CBI % Change vs. Status Quo	N/A	-29.7%	-52.4%
CBI % Change vs. Modernization	N/A	N/A	-32.3%

Table 184 – Cost Analysis Cost Variance by COA

Cost Variance	Status Quo	Modernization	VA Recommendation
Capital Cost Variance vs. Status Quo	N/A	($27,297,590)	$25,632,421
Operational Cost Variance vs. Status Quo	N/A	$0	$278,286,306
Estimated Total Cost Variance vs. Status Quo	N/A	($27,297,590)	$303,918,727
Estimated Total Cost Variance vs. Modernization	N/A	N/A	$331,216,318

Note: Operational unit costs were provided at the parent facility level not at the facility level. Therefore, the analysis does not estimate the changes in operational costs stemming from new, expanded, or removed points of care (POC). The analysis only shows changes to operational costs when a service line is shifted, at the parent facility level, from VA care to non-VA care.

Table 185 – Benefit Analysis Scores by COA

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3
Access	2	2	3
Quality	1	2	3
Facilities and Sustainability	1	2	3
Mission	2	2	2
Total Benefit Score	**7**	**10**	**14**

VA Recommendation

The VA Recommendation for the VISN 23 South Dakota West Market COA is detailed below.

- Modernize and realign the market by constructing a new VAMC with CLC, RRTP, and outpatient services in the vicinity of Rapid City, South Dakota
- Modernize and realign the Fort Meade VAMC by:
  - Relocating CLC and outpatient services provided at the Fort Meade VAMC to current or future VA facilities and discontinuing CLC and outpatient services at the Fort Meade VAMC
  - Relocating inpatient medical and surgical services and emergency department services from the Fort Meade VAMC to community providers and discontinuing inpatient medical and surgical and emergency department services
  - Establishing a strategic collaboration to provide inpatient mental health services and discontinuing inpatient mental health services at the Fort Meade VAMC. If unable to enter into a strategic collaboration, relocate inpatient mental health services to community providers
  - Closing the Fort Meade VAMC
- Modernize and realign the Hot Springs VAMC by:
  - Relocating CLC, RRTP, and outpatient services provided at the Hot Springs VAMC to current or future VA facilities and discontinuing CLC, RRTP, and outpatient services at the Hot Springs VAMC
  - Relocating inpatient medical services and urgent care services from the Hot Springs VAMC to community providers and discontinuing inpatient medical and urgent care services
  - Closing the Hot Springs VAMC
- Modernize and realign outpatient facilities in the market by:
  - Establishing a new MS CBOC in the vicinity of Sturgis, South Dakota
  - Establishing a new MS CBOC in the vicinity of Hot Springs, South Dakota
  - Relocating all services from the Rapid City MS CBOC to the proposed Rapid City VAMC and closing the Rapid City MS CBOC

Cost Analysis

The Cost Analysis highlighted the estimated Present Value (PV) of each COA for the VISN 23 South Dakota West Market across a 30-year horizon. The cost of the VA Recommendation COA ($6.0 B) was lower than the Status Quo COA ($6.30 B) and the Modernization COA ($6.33 B).

For the VISN 23 South Dakota West Market, the VA Recommendation COA is $303.9 M (4.8%) less expensive than the Status Quo COA and $331.2 M (5.2%) less expensive than the Modernization COA. The cost difference between the VA Recommendation COA and Status Quo COA can be attributed to new facilities, closing or modernizing existing facilities, and scaling capacity of existing facilities up or down to meet future Veteran in-house demand to accommodate changes in demand.

The table below outlines the costs associated with each of the COAs. For more detail refer to Appendix A – VISN 23 South Dakota West: Capital and Operational Costs Detail.

Table 186 – Total Cost Summary by COA

	Status Quo	Modernization	VA Recommendation
Total Costs (PV)	($6,304,781,704)	($6,332,079,294)	($6,000,862,977)
Capital Cost Variance vs. Status Quo	N/A	($27,297,590)	$25,632,421
Operational Cost Variance vs. Status Quo	N/A	$0	$278,286,306
Non-VA Care Operational Cost Variance	N/A	$0	($343,462,063)
VA Care Operational Cost Variance	N/A	$0	$621,748,369
Estimated Total Cost Variance vs. Status Quo	N/A	($27,297,590)	$303,918,727
Estimated Total Cost Variance vs. Modernization	N/A	N/A	$331,216,318

Benefit Analysis

This section describes the non-financial benefit analysis results for the VISN 23 South Dakota West Market across five domains: Demand and Supply, Access, Quality, Facilities and Sustainability, and Mission. The results indicate that the VA Recommendation COA provides the most benefit (greatest Total Benefit Score) in comparison to the Status Quo and Modernization COAs.

Table 187 – Benefit Analysis Scores by COA

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3
Access	2	2	3
Quality	1	2	3
Facilities and Sustainability	1	2	3
Mission	2	2	2
Total Benefit Score	**7**	**10**	**14**

The scoring and rationale within each domain are described in the following sections. The data underlying the analysis is provided in Appendix B – VISN 23 South Dakota West: Benefits Analysis Key Data. Additional information regarding the scoring methodology is provided in the CBA Methodology.

Demand and Supply

Within the Demand and Supply domain, the CBA considers how each COA impacts VA's ability to meet Veteran demand in the future. Each COA is assessed on two benefit components: (1) the ability to balance demand and supply; (2) the changes to facility placement or service offerings that improve VA's ability to meet future demand.

The table below shows the scores for VISN 23 South Dakota West for this domain.

Table 188 – Demand and Supply Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3

Status Quo: The COA received a score of 1 because at least one inpatient service line was over/under supplied, or more than 50% of specialties were inadequately supplied when compared to future Veteran in-house demand. Additionally, no changes to facilities or services were introduced that improve VA's ability to meet the future Veteran enrollee population (e.g., relocation or establishment of facilities in areas with greater Veteran demand, expansion of services).

Modernization: The COA received a score of 2 because, while Modernization right-sizes services to meet future Veteran in-house demand, the COA does not include changes to facilities or services that improve VA's ability to meet future Veteran enrollee population (e.g., relocation or establishment of facilities in areas with greater Veteran demand, addition of new services).

VA Recommendation: The COA received a score of 3 because it right-sizes services to meet future Veteran enrollee demand and includes changes to facilities or services that improve VA's ability to meet

future Veteran enrollee demand based on guidelines established in the CBA methodology. These changes include the following:

- Establishes a new Rapid City VAMC to provide inpatient residential rehabilitative services; 12,332 enrollees live within 60 minutes of the proposed facility
- Establishes the new Rapid City inpatient mental health partnership

Access

Within the Access domain, the CBA considers how each COA impacts Veteran access to care in the future. Each COA is assessed on the change in enrollee proximity to VA-provided primary care, specialty care, and outpatient mental health care.

The table below shows the CBA access scores for VISN 23 South Dakota West for this domain.

Table 189 – Access Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Access	2	2	3

Note: the CBA Access domain score is based on enrollee proximity to VA-provided care only rather than the full high-performing integrated delivery network (inclusive of VA, Community Care Network providers, and non-Community Care Network providers meeting quality criteria). While a COA may have a reduced access score within the CBA, the Section 203 Criteria analysis shows that the VA Recommendation COA maintains or improves access to all service lines in the future high-performing integrated delivery network (HPIDN).

Status Quo: The COA received a score of 2 because access is maintained within 1% for VA-provided primary care, specialty care, and outpatient mental health care.

Modernization: The COA received a score of 2 because access is maintained within 1% for VA-provided primary care, specialty care, and outpatient mental health care.

VA Recommendation: The COA received a score of 3 because access to VA-provided primary care increased 1% or more, specialty care was maintained within 1%, and outpatient mental health care increased 1% or more.

Quality

Within the Quality domain, the CBA considers how each COA impacts the quality of Veteran care in the future. Each COA is assessed based on two benefit components: (1) the ability of the main patient care facilities to support modern healthcare; (2) the ability of demand to support clinical competency.

The table below shows the scores for VISN 23 South Dakota West for this domain.

Table 190 – Quality Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Quality	1	2	3

Status Quo: The COA received a score of 1 for two reasons. First, the COA includes main patient care facilities that were built prior to the emergence of modern healthcare design principles and specific standards to support modern medicine (e.g., floor-to-floor heights, corridor widths, columns spacing, and utility infrastructure requirements). Second, the COA includes facilities with projected future demand below VA planning guidelines for maintaining programs. VA's planning guidelines reflect that sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery.

Modernization: The COA received a score of 2 for two reasons. First, the COA replaces aged infrastructure with modern facilities that meet modern health care design standards. Modern facilities support current standards of care (e.g., PACT-enabled environment in the outpatient setting, single patient rooms in the inpatient setting) and utilization of technologies. They can also improve the experience for both Veterans and staff. Second, the COA includes facilities with projected future demand below VA planning guidelines for maintaining programs. VA's planning guidelines reflect that sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery.

VA Recommendation: The COA received a score of 3 for two reasons. First, the COA contains only modern facilities that meet modern health care design standards. Modern facilities support current standards of care (e.g., PACT-enabled environment in the outpatient setting, single patient rooms in the inpatient setting) and utilization of technologies. They can also improve the experience for both Veterans and staff. Second, the COA includes facilities with projected future demand at or above VA planning guidelines for maintaining programs. VA's planning guidelines reflect that sufficient volume and diversity of cases are required for all members of the care team to maintain proficiency and quality care delivery. The COA includes the following actions to ensure adequate demand across inpatient acute service lines throughout the market:

- Transition Fort Meade's low census inpatient medicine and surgery, and inpatient mental health program to community providers
- Transition Hot Springs's low census inpatient medicine program to the partnership with Critical Access Hospital (Fall River Hospital) and IHS facilities in Hot Springs

Facilities and Sustainability

Within the Facilities and Sustainability domain, the CBA considers how each COA impacts the sustainability of Veteran care in the future. Each COA is assessed based on two benefit components: (1) the useful life of the main patient care facilities; (2) changes that strengthen VA's ability to recruit and retain providers.

The table below shows the scores for VISN 23 South Dakota West for this domain.

Table 191 – Facilities and Sustainability Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Facilities and Sustainability	1	2	3

Note: The American Hospital Association estimates that a hospital's useful life, a measure which predicts the productive period of a typical capital asset before it becomes obsolete or needs replacement, is currently 40 years.

Status Quo: The COA received a score of 1 for two reasons. First, the COA includes at least one main patient care facility that exceeds its useful life as defined by the American Hospital Association, indicating it may be obsolete or need replacement. Second, the COA does not include changes that strengthen VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities).

Modernization: The COA received a score of 2 for two reasons. First, the COA replaces all main patient care facilities that have exceeded their useful life with modern facilities that can be sustained over the coming years. Second, while the COA includes modernized infrastructure, which may attract providers, it does not include additional changes to support VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities).

VA Recommendation: The COA received a score of 3 for two reasons. First, the COA replaces all main patient care facilities that have exceeded their useful life with modern facilities that can be sustained over the coming years. Second, in addition to modernized infrastructure which may attract providers, it also includes additional changes to support VA's ability to recruit or retain providers (e.g., relocation of VA facilities closer to health care hubs based on Hospital Referral Regions; new or expanded partnerships between VA and academic affiliates, other Federal facilities, or community facilities). The COA includes the following action to support VA's ability to recruit or retain providers:

- Establishes the new Rapid City inpatient mental health partnership

Mission

Within the Mission domain, the CBA considers how each COA impacts VA's ability to support its statutory missions of Education, Research, and Emergency Preparedness in the future. Each COA is assessed on three benefit components: (1) the impact on training programs; (2) the impact on research programs; (3) the impact on emergency preparedness.

A COA's overall score in the Mission domain is determined by the rounded average (unweighted) of its component (e.g., Education, Research, Emergency Preparedness) scores. The table below shows the scores for VISN 23 South Dakota West for this domain.

Table 192 – Mission Scoring Summary

Subdomain	Status Quo	Modernization	VA Recommendation
Education	2	2	1
Research	2	2	3
Emergency Preparedness	2	2	2
Overall Mission Score (Rounded Average)	**2**	**2**	**2**

Status Quo: The COA received a score of 2 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 2 because it does not impact inpatient acute service lines and thus maintains existing training programs.
- **Research:** The COA received a score of 2 because all existing facilities with research programs are maintained.
- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

Modernization: The COA received a score of 2 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 2 because it does not impact inpatient acute service lines and thus maintains existing training programs.
- **Research:** The COA received a score of 2 because all existing facilities with research programs are maintained.
- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

VA Recommendation: The COA received a score of 2 (rounded average of scores across Education, Research, and Emergency Preparedness).

- **Education:** The COA received a score of 1 because it impacts inpatient acute service lines and thus introduces risk to existing training programs.
- **Research:** The COA received a score of 3 because it maintains all research programs and builds new (not replacement) infrastructure to support additional research space.
- **Emergency Preparedness:** The COA received a score of 2 because it maintains the current count of Primary Receiving Center-designated VAMCs in the market.

Sensitivity Analysis

A sensitivity analyses study shows how various sources of uncertainty in a mathematical model contribute to the model's overall uncertainty. The market is considered sensitive to a scenario when the VA Recommendation is no longer the leading COA due to changes in benefit scores, VA capital costs, VA operational costs, or non-VA operational costs.

The table below outlines the sensitivity analysis scenarios completed.

Table 193 – Sensitivity Analysis Scenarios

Sensitivity Analysis Scenarios
Increase Benefit Scores for Status Quo and Modernization in increments of one from 1 to 3 points
Increase VA Capital Costs in 50% increments from 0% to 300%
Increase VA Operational Costs in 50% increments from 0% to 300%
Increase Non-VA Operational Costs in 50% increments from 0% to 300%

Sensitivity Analysis Results Summary

In the VISN 23 South Dakota West Market, no scenarios changed the outcome of the CBA.

Sensitivity Analysis Full Results

The below tables show the results across all sensitivity analysis scenarios.

Table 194 – Sensitivity Analyses – Benefit Score Increase

Status Quo and Modernization Benefit Score Change	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
+0	0.90	0.63	0.43	VA Recommendation
+1	0.79	0.58	0.43	VA Recommendation
+2	0.70	0.53	0.43	VA Recommendation
+3	0.63	0.49	0.43	VA Recommendation

Table 195 – Sensitivity Analyses – VA Capital Cost Increase

VA Capital Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	0.90	0.63	0.43	VA Recommendation
50%	0.96	0.67	0.46	VA Recommendation
100%	1.01	0.71	0.48	VA Recommendation
150%	1.07	0.75	0.51	VA Recommendation
200%	1.12	0.80	0.54	VA Recommendation
250%	1.18	0.84	0.56	VA Recommendation

VA Capital Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
300%	1.24	0.88	0.59	VA Recommendation

Table 196 – Sensitivity Analyses – VA Operational Cost Increase

VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	0.90	0.63	0.43	VA Recommendation
50%	1.15	0.80	0.53	VA Recommendation
100%	1.39	0.98	0.63	VA Recommendation
150%	1.64	1.15	0.73	VA Recommendation
200%	1.88	1.32	0.83	VA Recommendation
250%	2.13	1.49	0.93	VA Recommendation
300%	2.37	1.66	1.03	VA Recommendation

Table 197 – Sensitivity Analyses – Non-VA Operational Cost Increase

Non-VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	0.90	0.63	0.43	VA Recommendation
50%	1.05	0.74	0.52	VA Recommendation
100%	1.20	0.84	0.60	VA Recommendation

Non-VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
150%	1.35	0.95	0.69	VA Recommendation
200%	1.50	1.05	0.78	VA Recommendation
250%	1.65	1.16	0.86	VA Recommendation
300%	1.80	1.26	0.95	VA Recommendation

Appendix A – VISN 23 South Dakota West: Capital and Operational Costs Detail

Table 198 – Capital Costs by COA

	Status Quo	Modernization	VA Recommendation
VAMC Ideal Square Footage	-	661,031	427,701
Build New GSF	-	467,625	313,764
Renovate In Place GSF	-	6,142	-
Matched Convert To GSF	-	23,595	4,120
Demolition GSF	-	1,154,012	1,280,527
Total Build New Cost	$0	($397,513,617)	($254,830,256)
Total Renovate In Place Cost	$0	($2,102,492)	$0
Total Matched Convert To Cost	$0	($8,803,265)	($1,482,318)
Total Demolition Cost	$0	($39,437,325)	($24,330,013)
Total Lease Build-Out Cost	$0	($9,718,665)	($55,578,815)
Total New Lease Cost	$0	($28,364,532)	($162,210,400)
Total Existing Lease Cost	($6,778,854)	($6,778,823)	($735,046)
NRM Costs for Owned Facilities	($662,873,097)	($77,170,456)	($49,930,978)
FCA Correction Cost	($102,011,629)	N/A	N/A
Estimated Base Modernization Cost	($771,663,580)	($569,889,175)	($549,097,826)
Additional Common/Lobby Space Needed (GSF)	-	163,669	109,817
Cost of Additional Common/Lobby Space	$0	($123,299,400)	($82,730,635)
Additional Parking Cost	$0	($11,696,485)	($89,948,020)

	Status Quo	Modernization	VA Recommendation
Potential Land Acquisition Cost	$0	($173,538)	($282,182)
Seismic Correction Cost	$0	$0	$0
Non-Building FCA Correction Cost	($10,029,583)	($10,029,582)	$0
Activation Costs	$0	($93,902,573)	($34,002,079)
Estimated Additional Costs for Modernization	($10,029,583)	($239,101,578)	($206,962,916)
Cost Adjustment: In-Progress Construction	N/A	N/A	$0
Cost Adjustment: In-Progress Lease	N/A	N/A	$0
Estimated Facilities Costs (PV)	($781,693,163)	($808,990,753)	($756,060,742)

Table 199 – Operational Costs by COA

	Status Quo	Modernization	VA Recommendation
VA Direct	($1,823,552,577)	($1,823,552,577)	($1,497,146,824)
Fixed Direct	($244,568,622)	($244,568,622)	($202,561,467)
VA Specific Direct	($37,757,518)	($37,757,518)	($34,127,617)
Indirect	($994,131,511)	($994,131,511)	($807,201,504)
VA Specific Indirect	($156,882,617)	($156,882,617)	($126,112,330)
Research and Education	($288,441)	($288,441)	($288,441)
VA Overhead	($174,572,525)	($174,572,525)	($142,567,258)
VA Care Operational Cost Total (PV)	($3,431,753,810)	($3,431,753,810)	($2,810,005,441)
CC Direct	($1,504,575,367)	($1,504,575,367)	($1,824,445,114)
Delivery and Operations	($64,462,332)	($64,462,332)	($76,960,972)

	Status Quo	Modernization	VA Recommendation
Care Coordination	($69,196,418)	($69,196,418)	($83,004,315)
CC Overhead	($85,429,198)	($85,429,198)	($102,151,391)
Admin PMPM	($367,671,416)	($367,671,416)	($348,235,003)
Non-VA Care Operational Cost Total (PV)	($2,091,334,731)	($2,091,334,731)	($2,434,796,794)
Estimated Operational Costs (PV)	($5,523,088,541)	($5,523,088,541)	($5,244,802,235)

Appendix B – VISN 23 South Dakota West: Benefits Analysis Key Data

Below are key data points used in the benefit analysis, summarized in the above Benefit Analysis section.

Demand and Supply

Inpatient

Table 200 – Demand and Supply Key Data Points for Scoring – Inpatient (IP)

Service Line	100% of FY29 In-house Bed Need	120% of FY29 In-house Bed Need	Operating Beds	Supply Adequacy (within 100-120% of in-house demand)
IP CLC	47	57	104	Over Supplied
IP Med/Surg	9	11	38	Over Supplied
IP MH	5	6	10	Over Supplied

Note: Community Living Center (CLC); Medicine (Med); Surgery (Surg); Mental Health (MH)

Source: Enrollee Healthcare Projection Model Base Year 2019

Outpatient

Table 201 – Demand and Supply Key Data Points for Scoring – Outpatient (OP)

Physician Supply Adequacy	Count of Specialties	Percentage
Adequately Supplied	7	26%
Under Supplied	20	74%

Note: VA supply in the Status Quo COA is quantitatively evaluated based on the data above. It is assumed the Modernization COA scales the capacity of existing facilities up or down to meet future Veteran in-house demand. Similar to the Modernization COA, it is assumed the VA Recommendation COA scales the capacity of existing and proposed facilities up or down to meet future Veteran in-house demand. However, the VA Recommendation COA may account for factors that demand projections do not consider that may shift the future balance of in-house and community workload, such as:

- Areas with unmet Veteran demand that may warrant a net new point of care
- Low-census inpatient acute programs that may pose risks to quality and training programs, potentially warranting a shift to community providers
- Community capacity factors that may warrant changes to VA capacity

Source: Office of Productivity, Efficiency and Staffing 2019 Capacity Report

Table 202 – New Facility Demand Guidelines

Facility or Service	Guideline
Inpatient Acute VAMCs	Greater than or equal to 35,000 overlapping enrollees
Inpatient CLC	Greater than or equal to 21,000 overlapping enrollees
Health Care Center	Greater than or equal to 34,000 overlapping enrollees
MS CBOC	Greater than or equal to 4,300 non-overlapping enrollees
CBOC	Greater than or equal to 2,500 non-overlapping enrollees

Note: The above guidelines are used to determine whether a new (not replacement) point of care or service proposed in the VA recommendation had adequate demand.

Access

Table 203 – Access Key Data Points for Scoring

COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of VA-provided OP Mental Health	66.6%	66.6%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of VA-provided OP Primary Care	76.3%	76.3%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of VA-provided OP Specialty Care	67.6%	67.6%	Maintained within 1%

COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	82.8%	82.8%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	94.7%	94.7%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	97.8%	97.8%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Mental Health	66.6%	66.6%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Primary Care	76.3%	76.3%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of VA-provided OP Specialty Care	67.6%	67.6%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	82.8%	82.8%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	94.7%	94.7%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	97.8%	97.8%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Mental Health	66.6%	68.2%	Increased 1% or more

COA	Measure	Current	Future	Result
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Primary Care	76.3%	77.9%	Increased 1% or more
VA Recommendation	% of enrollees within 60 minutes of VA-provided OP Specialty Care	67.6%	67.6%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	82.8%	83.0%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	94.7%	94.9%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	97.8%	97.9%	Maintained within 1%

Note: the CBA Access domain score is based on enrollee proximity to VA-provided care only rather than the full high-performing integrated delivery network (HPIDN) (inclusive of VA, Community Care Network, and non-Community Care Network providers meeting quality criteria). While a COA may have a reduced access score within the CBA, the Section 203 Criteria analysis shows that the VA Recommendation COA maintains or improves access to all service lines in the future HPIDN. The table above shows the results for enrollee proximity to the full HPIDN as well as to VA-provided care in the market.

Source: Enrollee data from the FY19 Geocoded Enrollee File. Existing VA facility location data from VAST. Commercial provider location data from Definitive Healthcare.

Quality

Main Patient Care Facility Construction Date

Table 204 – Quality Key Data Points for Scoring – Age

Facility	Main Patient Care Facility Construction Date	Built Pre-1970?
(V23) (568) Fort Meade-South Dakota	1958	Yes
(V23) (568A4) Hot Springs-South Dakota	1926	Yes

Source: Main patient care facility construction and renovation dates from CAI Buildings and FCA Condition Gaps Reports 9-14-2020

Inpatient Acute Demand

Table 205 – Quality Key Data Points for Scoring – Inpatient Acute Demand

Facility	Service	Demand Guideline	Meets or Exceeds Guideline?	VA Recommendation
(V23) (568) Fort Meade	IP Med	20 ADC	No	Partner (CCN)
(V23) (568) Fort Meade	IP Surg	1,600 Cases	No	Partner (CCN)
(V23) (568) Fort Meade	IP MH	8 ADC	No	Partner (VA Delivered)
(V23) (568A4) Hot Springs	IP Med	20 ADC	No	Partner (CCN)
(V23) (568A4) Hot Springs	IP Surg	1,600 Cases	No Service	N/A
(V23) (568A4) Hot Springs	IP MH	8 ADC	No Service	N/A

Note: The Status Quo and Modernization COAs are assumed to maintain all current facilities and services. The VA Recommendation COA proposes maintaining, partnering, and divesting of services at each facility, shown in the last column titled “VA Recommendation”. To score a 3, the VA recommendation must partner or divest of all low-demand services.

Source: FY 2029 average daily census for inpatient services is based on Enrollee Healthcare Projection Model Base Year 2019. 2019 Total Surgical Cases is from the VA National Surgery Office.

Facilities and Sustainability

Table 206 – Facilities and Sustainability Key Data Points for Scoring

Facility	Main Patient Care Facility Construction Date	Most Recent Main Patient Care Facility Renovation Date	Exceeds Useful Life?
(V23) (568) Fort Meade-South Dakota	1958	1999	Yes
(V23) (568A4) Hot Springs-South Dakota	1926	1996	Yes

Note: Exceeding useful life is defined as 1) When a main patient care facility was built before 1970 it has exceeded its useful life, even if it has undergone major renovation in the last 40 years. 2) When a main patient care facility was built after 1970 but is still more than 40 years old (built on or after 1971 and before 1989), it must have undergone major renovation within the last 40 years to not exceed its useful life. 3) When a main patient care facility was built in or after 1989, it has not exceeded its useful life.

Source: From CAI Buildings and FCA Condition Gaps Reports 9-14-2020

Table 207 – Key Data Points for Scoring - Recruitment and Retention

Facility	Expands VA's Ability to Recruit/Retain?
(V23) Rapid City IP MH Partnership	Yes

Mission

Table 208 – Mission Key Data Points for Scoring

The Status Quo and Modernization COAs are assumed to have no impact on VA's statutory missions. The impact of the VA Recommendation on VA's statutory missions is shown in the table below:

Facility	Training Impact	Research Impact	4th Mission Impact	Market Plan Includes New Facilities/Services To Increase Training/Research Opportunities
(V23) (568) Fort Meade	Deactivates IP Acute Service with training	No Research Program	No PRC Designation	Increases Research Opportunities
(V23) (568A4) Hot Springs	No impact despite deactivation of IP Acute Services exist	No Research Program	No PRC Designation	Increases Research Opportunities