VA Recommendations to the

ASSET AND INFRASTRUCTURE REVIEW COMMISSION

March 2022

Appendix H

Cost Benefit Analysis – VISN 21

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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 21 South Coast Market due to its leading Cost Benefit Index (CBI) score. The CBI score for the VA Recommendation COA (2.05) is 34.2% lower than the Status Quo COA (3.12) and 16.7% lower than the Modernization COA (2.46).

The VA Recommendation COA is $1.4 B (5.0%) less expensive than the Status Quo COA and $417.9 M (1.5%) 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 13-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 ($)	($28,057,621,354)	($27,086,645,494)	($26,668,742,411)
Benefit Analysis Score	9	11	13
CBI (Normalized in $Billions)	3.12	2.46	2.05
CBI % Change vs. Status Quo	N/A	-21.0%	-34.2%
CBI % Change vs. Modernization	N/A	N/A	-16.7%

Table 2 – Cost Analysis Cost Variance by COA

Cost Variance	Status Quo	Modernization	VA Recommendation
Capital Cost Variance vs Status Quo	N/A	$970,975,861	$1,388,878,943
Operational Cost Variance vs. Status Quo	N/A	$0	$0
Estimated Total Cost Variance vs. Status Quo	N/A	$970,975,861	$1,388,878,943
Estimated Total Cost Variance vs. Modernization	N/A	N/A	$417,903,083

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	2
Quality	3	3	3
Facilities and Sustainability	1	2	2
Mission	2	2	3
Total Benefit Score	**9**	**11**	**13**

VA Recommendation

The VA Recommendation for the VISN 21 South Coast Market COA is detailed below.

- Modernize and realign the Palo Alto Livermore VAMC by:
    - Relocating CLC and outpatient services to existing or future VA facilities and discontinuing these services at the Palo Alto Livermore VAMC
    - Closing the Palo Alto Livermore VAMC
- Modernize and realign the Palo Alto Menlo Park VAMC by:
    - Modernizing the CLC
    - Modernizing the RRTP
- Modernize and realign outpatient facilities in the market by:
    - Relocating the Capitola CBOC to a new site in the vicinity of Santa Cruz, California, and closing the existing Capitola CBOC
    - Establishing a new MS CBOC in the vicinity of Pleasanton, California

Cost Analysis

The Cost Analysis highlighted the estimated Present Value (PV) of each COA for the VISN 21 South Coast Market across a 30-year horizon. The cost of the VA Recommendation COA ($26.7 B) was lower than the Status Quo COA ($28.1 B) and the Modernization COA ($27.1 B).

For the VISN 21 South Coast Market, the VA Recommendation COA is $1.4 B (5.0%) less expensive than the Status Quo COA and $417.9 M (1.5%) 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 21 South Coast: Capital and Operational Costs Detail.

Table 4 – Total Cost Summary by COA

	Status Quo	Modernization	VA Recommendation
Total Costs (PV)	($28,057,621,354)	($27,086,645,494)	($26,668,742,411)
Capital Cost Variance vs. Status Quo	N/A	$970,975,861	$1,388,878,943
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	$970,975,861	$1,388,878,943
Estimated Total Cost Variance vs. Modernization	N/A	N/A	$417,903,083

Benefit Analysis

This section describes the non-financial benefit analysis results for the VISN 21 South Coast 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	2
Quality	3	3	3
Facilities and Sustainability	1	2	2
Mission	2	2	3

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Total Benefit Score	**9**	**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 21 South Coast: 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 21 South Coast 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 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 Santa Cruz CBOC to provide primary care and outpatient mental health services; there are 4,339 enrollees for which the proposed facility is the closest VA point of care within 30 minutes
- Establishes a new Pleasanton/Livermore MS CBOC to provide primary care, specialty care, and outpatient mental health services; there are 6,344 enrollees for which the proposed facility is the closest VA point of care within 60 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 21 South Coast for this domain.

Table 7 – 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 21 South Coast 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 21 South Coast 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 21 South Coast 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 21 South Coast 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	3.12	2.46	2.05	VA Recommendation
+1	2.81	2.26	2.05	VA Recommendation
+2	2.55	2.08	2.05	VA Recommendation
+3	2.34	1.93	2.05	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%	3.12	2.46	2.05	VA Recommendation
50%	3.30	2.57	2.12	VA Recommendation
100%	3.48	2.67	2.20	VA Recommendation
150%	3.66	2.78	2.27	VA Recommendation
200%	3.85	2.88	2.34	VA Recommendation
250%	4.03	2.99	2.41	VA Recommendation
300%	4.21	3.09	2.49	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%	3.12	2.46	2.05	VA Recommendation
50%	4.26	3.40	2.84	VA Recommendation
100%	5.40	4.33	3.63	VA Recommendation
150%	6.54	5.27	4.42	VA Recommendation
200%	7.69	6.20	5.21	VA Recommendation
250%	8.83	7.13	6.00	VA Recommendation
300%	9.97	8.07	6.80	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%	3.12	2.46	2.05	VA Recommendation
50%	3.35	2.65	2.21	VA Recommendation
100%	3.59	2.85	2.38	VA Recommendation
150%	3.82	3.04	2.54	VA Recommendation
200%	4.06	3.23	2.70	VA Recommendation
250%	4.29	3.42	2.86	VA Recommendation
300%	4.53	3.62	3.03	VA Recommendation

Appendix A – VISN 21 South Coast: Capital and Operational Costs Detail

Table 16 – Capital Costs by COA

	Status Quo	Modernization	VA Recommendation
VAMC Ideal Square Footage	-	2,147,783	2,169,452
Build New GSF	-	248,191	278,579
Renovate In Place GSF	-	1,152,697	1,057,677
Matched Convert To GSF	-	660,028	735,693
Demolition GSF	-	859,027	938,171
Total Build New Cost	$0	($331,338,429)	($381,132,918)
Total Renovate In Place Cost	$0	($517,231,508)	($452,595,181)
Total Matched Convert To Cost	$0	($382,298,913)	($421,715,421)
Total Demolition Cost	$0	($40,903,626)	($37,212,268)
Total Lease Build-Out Cost	$0	($34,477,479)	($37,769,037)
Total New Lease Cost	$0	($236,025,402)	($258,497,753)
Total Existing Lease Cost	($239,662,373)	($239,662,308)	($223,436,337)
NRM Costs for Owned Facilities	($2,403,544,036)	($250,737,779)	($253,267,451)
FCA Correction Cost	($489,964,122)	N/A	N/A
Estimated Base Modernization Cost	($3,133,170,532)	($2,032,675,445)	($2,065,626,367)
Additional Common/Lobby Space Needed (GSF)	-	86,867	97,503
Cost of Additional Common/Lobby Space	$0	($92,323,319)	($101,833,056)
Additional Parking Cost	$0	($7,255,454)	$0

	Status Quo	Modernization	VA Recommendation
Potential Land Acquisition Cost	$0	$0	($864,466)
Seismic Correction Cost	($101,250,305)	($62,895,300)	($60,580,233)
Non-Building FCA Correction Cost	($39,738,538)	($52,426,145)	($39,738,538)
Activation Costs	$0	($55,607,851)	($121,637,772)
Estimated Additional Costs for Modernization	($140,988,843)	($270,508,069)	($324,654,064)
Cost Adjustment: In-Progress Construction	N/A	N/A	$505,000,000
Cost Adjustment: In-Progress Lease	N/A	N/A	$0
Estimated Facilities Costs (PV)	($3,274,159,374)	($2,303,183,514)	($1,885,280,431)

Table 17 – Operational Costs by COA

	Status Quo	Modernization	VA Recommendation
VA Direct	($10,914,170,029)	($10,914,170,029)	($10,914,170,029)
Fixed Direct	($1,223,109,044)	($1,223,109,044)	($1,223,109,044)
VA Specific Direct	($418,298,369)	($418,298,369)	($418,298,369)
Indirect	($6,168,108,587)	($6,168,108,587)	($6,168,108,587)
VA Specific Indirect	($768,265,663)	($768,265,663)	($768,265,663)
Research and Education	($104,154,232)	($104,154,232)	($104,154,232)
VA Overhead	($960,931,850)	($960,931,850)	($960,931,850)
VA Care Operational Cost Total (PV)	($20,557,037,774)	($20,557,037,774)	($20,557,037,774)
CC Direct	($2,197,610,189)	($2,197,610,189)	($2,197,610,189)
Delivery and Operations	($96,529,343)	($96,529,343)	($96,529,343)

	Status Quo	Modernization	VA Recommendation
Care Coordination	($92,632,035)	($92,632,035)	($92,632,035)
CC Overhead	($120,187,079)	($120,187,079)	($120,187,079)
Admin PMPM	($1,719,465,562)	($1,719,465,562)	($1,719,465,562)
Non-VA Care Operational Cost Total (PV)	($4,226,424,206)	($4,226,424,206)	($4,226,424,206)
Estimated Operational Costs (PV)	($24,783,461,980)	($24,783,461,980)	($24,783,461,980)

Appendix B – VISN 21 South Coast: 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	203	243	257	Over Supplied
IP Med/Surg	49	59	109	Over Supplied
IP MH	24	29	60	Over 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	15	56%
Under Supplied	12	44%

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	93.0%	93.0%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of VA-provided OP Primary Care	93.0%	93.0%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of VA-provided OP Specialty Care	96.3%	96.3%	Maintained within 1%

COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	98.8%	98.8%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.2%	99.2%	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	93.0%	93.0%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Primary Care	93.0%	93.0%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of VA-provided OP Specialty Care	96.3%	96.3%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	98.8%	98.8%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.2%	99.2%	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	93.0%	93.2%	Maintained within 1%

COA	Measure	Current	Future	Result
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Primary Care	93.0%	93.2%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of VA-provided OP Specialty Care	96.3%	96.3%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	98.8%	98.8%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.2%	99.3%	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 22 – Quality Key Data Points for Scoring – Age

Facility	Main Patient Care Facility Construction Date	Built Pre-1970?
(V21) (640) Palo Alto	1997	No
(V21) (640A0) Palo Alto Menlo Park	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
(V21) (640) Palo Alto	IP Med	20 ADC	Yes	Maintain
(V21) (640) Palo Alto	IP Surg	1,600 Cases	Yes	Maintain
(V21) (640) Palo Alto	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?
(V21) (640) Palo Alto	1997	N/A	No
(V21) (640A0) Palo Alto Menlo Park	1985	N/A	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 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
(V21) (640) Palo Alto	No impact on training	Maintains or Has Plan to Transition	No PRC Designation	Increases Research Opportunities, Increases Training Opportunities

VISN 21 Sierra Nevada

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 21 Sierra Nevada Market due to its leading Cost Benefit Index (CBI) score. The CBI score for the VA Recommendation COA (0.82) is 19.7% lower than the Status Quo COA (1.02) and 17.4% lower than the Modernization COA (1.00).

The VA Recommendation COA is $1.3 B (12.5%) more expensive than the Status Quo COA and $564.5 M (5.1%) 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 14-point benefits score compared to 10 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 ($)	($10,249,435,802)	($10,962,969,689)	($11,527,426,277)
Benefit Analysis Score	10	11	14
CBI (Normalized in $Billions)	1.02	1.00	0.82
CBI % Change vs. Status Quo	N/A	-2.8%	-19.7%
CBI % Change vs. Modernization	N/A	N/A	-17.4%

Table 28 – Cost Analysis Cost Variance by COA

Cost Variance	Status Quo	Modernization	VA Recommendation
Capital Cost Variance vs. Status Quo	N/A	($713,533,888)	($1,277,990,475)
Operational Cost Variance vs. Status Quo	N/A	$0	$0
Estimated Total Cost Variance vs. Status Quo	N/A	($713,533,888)	($1,277,990,475)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	($564,456,588)

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	3	3	3
Facilities and Sustainability	2	2	2
Mission	2	2	3
Total Benefit Score	**10**	**11**	**14**

VA Recommendation

The VA Recommendation for the VISN 21 Sierra Nevada Market COA is detailed below.

- Modernize and realign the Reno VAMC by:
    - Constructing a replacement VAMC with inpatient medical and surgical, inpatient mental health, CLC, outpatient surgical, emergency department, and outpatient services in the vicinity of Reno, Nevada
    - Closing the existing Reno VAMC
- Modernize and realign outpatient facilities in the market by:
    - Establishing a new MS CBOC in the vicinity of Carson City, Nevada
    - Relocating the Reno East CBOC to the vicinity of Sparks, Nevada, and closing the existing Reno East CBOC
    - Relocating all services at the Kietzke OOS and closing the Kietzke OOS
    - Relocating all services to the proposed new Reno VAMC and closing the Virginia Street OOS
    - Relocating all services at the Diamond View CBOC and closing the Diamond View CBOC
    - Relocating all services at the Winnemucca OOS and closing the Winnemucca OOS

Cost Analysis

The Cost Analysis highlighted the estimated Present Value (PV) of each COA for the VISN 21 Sierra Nevada Market across a 30-year horizon. The cost of the VA Recommendation COA ($11.5 B) was higher than the Status Quo COA ($10.2 B) and the Modernization COA ($11.0 B).

For the VISN 21 Sierra Nevada Market, the VA Recommendation COA is $1.3 B (12.5%) more expensive than the Status Quo COA and $564.5 M (5.1%) 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 21 Sierra Nevada: Capital and Operational Costs Detail.

Table 30 – Total Cost Summary by COA

	Status Quo	Modernization	VA Recommendation
Total Costs (PV)	($10,249,435,802)	($10,962,969,689)	($11,527,426,277)
Capital Cost Variance vs. Status Quo	N/A	($713,533,888)	($1,277,990,475)
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	($713,533,888)	($1,277,990,475)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	($564,456,588)

Benefit Analysis

This section describes the non-financial benefit analysis results for the VISN 21 Sierra Nevada 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	3	3	3
Facilities and Sustainability	2	2	2
Mission	2	2	3

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Total Benefit Score	**10**	**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 21 Sierra Nevada: 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 21 Sierra Nevada 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 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 Carson City MS CBOC to provide primary care, specialty care, and outpatient mental health services; there are 4,702 enrollees for which the proposed facility is the closest VA point of care within 60 minutes
- Expands the North Reno OOS to a MS CBOC, adding primary care and 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 21 Sierra Nevada 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 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 21 Sierra Nevada for this domain.

Table 34 – 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 21 Sierra Nevada for this domain.

Table 35 – Facilities and Sustainability Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Facilities and Sustainability	2	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 2 for two reasons. First, the COA's main patient care facilities are still within their useful life, indicating they can be sustained over the coming years. Second, while the COA includes modern 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).

Modernization: The COA received a score of 2 for two reasons. First, the COA's main patient care facilities are still within their useful life, indicating they can be sustained over the coming years. Second, while the COA includes modern 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 21 Sierra Nevada for this domain.

Table 36 – 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 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 21 Sierra Nevada Market, two scenarios changed the outcome of the CBA:

- Increasing the Modernization benefits score by three points
- Increasing the VA Capital Costs by 300%; Status Quo becomes the preferred COA

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	1.02	1.00	0.82	VA Recommendation
+1	0.93	0.91	0.82	VA Recommendation
+2	0.85	0.84	0.82	VA Recommendation
+3	0.79	0.78	0.82	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%	1.02	1.00	0.82	VA Recommendation
50%	1.05	1.05	0.88	VA Recommendation
100%	1.07	1.10	0.94	VA Recommendation
150%	1.09	1.15	1.00	VA Recommendation
200%	1.11	1.20	1.07	VA Recommendation
250%	1.13	1.25	1.13	VA Recommendation
300%	1.15	1.30	1.19	Status Quo

Table 40 – Sensitivity Analyses – VA Operational Cost Increase

VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.02	1.00	0.82	VA Recommendation
50%	1.36	1.30	1.06	VA Recommendation
100%	1.69	1.60	1.30	VA Recommendation
150%	2.03	1.91	1.54	VA Recommendation
200%	2.36	2.21	1.78	VA Recommendation
250%	2.69	2.51	2.01	VA Recommendation

VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
300%	3.03	2.82	2.25	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%	1.02	1.00	0.82	VA Recommendation
50%	1.18	1.14	0.94	VA Recommendation
100%	1.34	1.28	1.05	VA Recommendation
150%	1.50	1.43	1.16	VA Recommendation
200%	1.66	1.57	1.28	VA Recommendation
250%	1.82	1.72	1.39	VA Recommendation
300%	1.97	1.86	1.50	VA Recommendation

Appendix A – VISN 21 Sierra Nevada: Capital and Operational Costs Detail

Table 42 – Capital Costs by COA

	Status Quo	Modernization	VA Recommendation
VAMC Ideal Square Footage	-	899,755	1,269,146
Build New GSF	-	389,680	940,108
Renovate In Place GSF	-	205,313	-
Matched Convert To GSF	-	168,374	-
Demolition GSF	-	171,872	545,559
Total Build New Cost	$0	($389,986,712)	($857,996,794)
Total Renovate In Place Cost	$0	($70,932,018)	$0
Total Matched Convert To Cost	$0	($67,742,077)	$0
Total Demolition Cost	$0	($6,407,534)	($10,365,621)
Total Lease Build-Out Cost	$0	($25,896,736)	($33,994,667)
Total New Lease Cost	$0	($75,581,221)	($99,215,654)
Total Existing Lease Cost	($37,980,263)	($37,980,177)	($19,485,207)
NRM Costs for Owned Facilities	($293,848,662)	($105,039,749)	($148,163,395)
FCA Correction Cost	($60,618,749)	N/A	N/A
Estimated Base Modernization Cost	($392,447,674)	($779,566,225)	($1,169,221,338)
Additional Common/Lobby Space Needed (GSF)	-	136,388	329,038
Cost of Additional Common/Lobby Space	$0	($112,088,207)	($270,414,238)
Additional Parking Cost	$0	($84,457,356)	($48,677,416)

	Status Quo	Modernization	VA Recommendation
Potential Land Acquisition Cost	$0	($105,690)	($12,714,913)
Seismic Correction Cost	($22,494,265)	($12,027,708)	$0
Non-Building FCA Correction Cost	$0	$0	$0
Activation Costs	$0	($140,230,641)	($191,904,509)
Estimated Additional Costs for Modernization	($22,494,265)	($348,909,602)	($523,711,076)
Cost Adjustment: In-Progress Construction	N/A	N/A	$0
Cost Adjustment: In-Progress Lease	N/A	N/A	$0
Estimated Facilities Costs (PV)	($414,941,939)	($1,128,475,826)	($1,692,932,414)

Table 43 – Operational Costs by COA

	Status Quo	Modernization	VA Recommendation
VA Direct	($3,625,506,052)	($3,625,506,052)	($3,625,506,052)
Fixed Direct	($401,771,102)	($401,771,102)	($401,771,102)
VA Specific Direct	($142,120,201)	($142,120,201)	($142,120,201)
Indirect	($1,928,892,654)	($1,928,892,654)	($1,928,892,654)
VA Specific Indirect	($247,728,637)	($247,728,637)	($247,728,637)
Research and Education	($331,339)	($331,339)	($331,339)
VA Overhead	($321,832,237)	($321,832,237)	($321,832,237)
VA Care Operational Cost Total (PV)	($6,668,182,223)	($6,668,182,223)	($6,668,182,223)
CC Direct	($1,698,525,994)	($1,698,525,994)	($1,698,525,994)
Delivery and Operations	($67,109,900)	($67,109,900)	($67,109,900)

	Status Quo	Modernization	VA Recommendation
Care Coordination	($67,004,444)	($67,004,444)	($67,004,444)
CC Overhead	($87,083,374)	($87,083,374)	($87,083,374)
Admin PMPM	($1,246,587,928)	($1,246,587,928)	($1,246,587,928)
Non-VA Care Operational Cost Total (PV)	($3,166,311,640)	($3,166,311,640)	($3,166,311,640)
Estimated Operational Costs (PV)	($9,834,493,863)	($9,834,493,863)	($9,834,493,863)

Appendix B – VISN 21 Sierra Nevada: 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	61	74	60	Under Supplied
IP Med/Surg	51	61	50	Under Supplied
IP MH	20	24	20	Under 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
Adequately Supplied	5	19%
Under Supplied	22	81%

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	75.2%	75.2%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of VA-provided OP Primary Care	76.9%	76.9%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of VA-provided OP Specialty Care	79.4%	79.4%	Maintained within 1%

COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	94.7%	94.7%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	96.7%	96.7%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	99.1%	99.1%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Mental Health	75.2%	75.2%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Primary Care	76.9%	76.9%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of VA-provided OP Specialty Care	79.4%	79.4%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	94.7%	94.7%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	96.7%	96.7%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	99.1%	99.1%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Mental Health	75.2%	77.9%	Increased 1% or more

COA	Measure	Current	Future	Result
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Primary Care	76.9%	78.0%	Increased 1% or more
VA Recommendation	% of enrollees within 60 minutes of VA-provided OP Specialty Care	79.4%	86.9%	Increased 1% or more
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	94.7%	94.9%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	96.7%	96.9%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	99.1%	99.1%	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?
(V21) (654) Reno	1998	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 49 – Quality Key Data Points for Scoring – Inpatient Acute Demand

Facility	Service	Demand Guideline	Meets or Exceeds Guideline?	VA Recommendation
(V21) (654) Reno	IP Med	20 ADC	Yes	Replace/Relocate
(V21) (654) Reno	IP Surg	1,600 Cases	Yes	Replace/Relocate
(V21) (654) Reno	IP MH	8 ADC	Yes	Replace/Relocate

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?
(V21) (654) Reno	1998	N/A	No

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
(V21) (654) Reno	No impact on training	Maintains or Has Plan to Transition	No PRC Designation	Increases Research Opportunities, Increases Training Opportunities

VISN 21 South Valley

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 combined VISN 21 South Valley Market due to its leading Cost Benefit Index (CBI) score. The CBI score for the VA Recommendation COA (0.73) is 43.2% lower than the Status Quo COA (1.28) and 26.5% lower than the Modernization COA (0.99).

The VA Recommendation COA is $670.7 M (6.5%) more expensive than the Status Quo COA and $19.3 M (0.2%) 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 15-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 ($)	($10,257,236,914)	($10,908,602,577)	($10,927,899,806)
Benefit Analysis Score	8	11	15
CBI (Normalized in $Billions)	1.28	0.99	0.73
CBI % Change vs. Status Quo	N/A	-22.7%	-43.2%
CBI % Change vs. Modernization	N/A	N/A	-26.5%

Table 54 – Cost Analysis Cost Variance by COA

Cost Variance	Status Quo	Modernization	VA Recommendation
Capital Cost Variance vs. Status Quo	N/A	($651,365,664)	($670,662,893)
Operational Cost Variance vs. Status Quo	N/A	$0	$0
Estimated Total Cost Variance vs. Status Quo	N/A	($651,365,664)	($670,662,893)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	($19,297,229)

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	3
Quality	2	3	3
Facilities and Sustainability	1	2	3
Mission	2	2	3
Total Benefit Score	**8**	**11**	**15**

VA Recommendation

The VA Recommendation for the VISN 21 South Valley Market COA is detailed below.

- Modernize the inpatient medical and surgical space at the Fresno VAMC
- Modernize and realign outpatient facilities in the market by:
    - Establishing a new MS CBOC in the vicinity of Clovis, California
    - Relocating the Tulare CBOC to a new site in the vicinity of Visalia, California, and closing the existing Tulare CBOC

Cost Analysis

The Cost Analysis highlighted the estimated Present Value (PV) of each COA for the VISN 21 South Valley Market across a 30-year horizon. The cost of the VA Recommendation COA ($10.1 B) was lower than the Status Quo COA ($10.3 B) and lower than the Modernization COA ($10.9 B).

For the VISN 21 South Valley Market, the VA Recommendation COA is $670.7 M (6.5%) more expensive than the Status Quo COA and $19.3 M (0.2%) 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 21 South Valley: Capital and Operational Costs Detail.

Table 56 – Total Cost Summary by COA

	Status Quo	Modernization	VA Recommendation
Total Costs (PV)	($10,257,236,914)	($10,908,602,577)	($10,927,899,806)
Capital Cost Variance vs. Status Quo	N/A	($651,365,664)	($670,662,893)

	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	($651,365,664)	($670,662,893)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	($19,297,229)

Benefit Analysis

This section describes the non-financial benefit analysis results for the VISN 21 South Valley 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	3
Quality	2	3	3
Facilities and Sustainability	1	2	3
Mission	2	2	3
Total Benefit Score	**8**	**11**	**15**

The scoring and rationale within each domain are described in the following sections. The data underlying the analysis is provided in Appendix B – VISN 21 South Valley: 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 21 South Valley 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 Visalia MS CBOC to provide primary care, specialty care, and outpatient mental health services; there are 12,730 enrollees for which the proposed facility is the closest VA point of care within 60 minutes
- Establishes the new Fresno outpatient 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 21 South Valley for this domain.

Table 59 – 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 21 South Valley 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 21 South Valley 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 Fresno outpatient 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 21 South Valley 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 21 South Valley 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 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	1.28	0.99	0.73	VA Recommendation
+1	1.14	0.91	0.73	VA Recommendation
+2	1.03	0.84	0.73	VA Recommendation
+3	0.93	0.78	0.73	VA Recommendation

Table 65 – Sensitivity Analyses – VA Capital Cost Increase

VA Capital Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.28	0.99	0.73	VA Recommendation
50%	1.32	1.05	0.77	VA Recommendation
100%	1.36	1.11	0.82	VA Recommendation
150%	1.40	1.17	0.86	VA Recommendation
200%	1.44	1.22	0.90	VA Recommendation
250%	1.48	1.28	0.95	VA Recommendation
300%	1.52	1.34	0.99	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%	1.28	0.99	0.73	VA Recommendation
50%	1.71	1.31	0.96	VA Recommendation
100%	2.14	1.62	1.19	VA Recommendation
150%	2.58	1.93	1.42	VA Recommendation
200%	3.01	2.25	1.65	VA Recommendation
250%	3.44	2.56	1.88	VA Recommendation

VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
300%	3.87	2.87	2.11	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%	1.28	0.99	0.73	VA Recommendation
50%	1.45	1.12	0.82	VA Recommendation
100%	1.62	1.24	0.91	VA Recommendation
150%	1.79	1.36	1.00	VA Recommendation
200%	1.96	1.49	1.09	VA Recommendation
250%	2.14	1.61	1.18	VA Recommendation
300%	2.31	1.74	1.27	VA Recommendation

Appendix A – VISN 21 South Valley: Capital and Operational Costs Detail

Table 68 – Capital Costs by COA

	Status Quo	Modernization	VA Recommendation
VAMC Ideal Square Footage	-	918,641	808,986
Build New GSF	-	489,422	408,196
Renovate In Place GSF	-	137,032	141,478
Matched Convert To GSF	-	120,889	116,443
Demolition GSF	-	267,524	267,524
Total Build New Cost	$0	($559,962,411)	($468,401,230)
Total Renovate In Place Cost	$0	($38,273,437)	($39,862,999)
Total Matched Convert To Cost	$0	($57,641,086)	($55,494,961)
Total Demolition Cost	$0	($11,739,665)	($11,739,665)
Total Lease Build-Out Cost	$0	($15,539,555)	($37,120,000)
Total New Lease Cost	$0	($116,031,602)	($277,298,359)
Total Existing Lease Cost	($26,457,012)	($26,456,981)	($18,938,163)
NRM Costs for Owned Facilities	($481,755,687)	($107,244,514)	($94,443,092)
FCA Correction Cost	($98,533,645)	N/A	N/A
Estimated Base Modernization Cost	($606,746,344)	($932,889,252)	($1,003,298,468)
Additional Common/Lobby Space Needed (GSF)	-	171,298	142,869
Cost of Additional Common/Lobby Space	$0	($165,707,629)	($138,206,275)
Additional Parking Cost	$0	($27,366,988)	($22,023,566)

	Status Quo	Modernization	VA Recommendation
Potential Land Acquisition Cost	$0	($7,215,554)	($5,863,220)
Seismic Correction Cost	($21,946,760)	($4,649,229)	($4,649,230)
Non-Building FCA Correction Cost	($2,923,470)	($2,923,470)	($2,923,470)
Activation Costs	$0	($142,230,117)	($125,315,239)
Estimated Additional Costs for Modernization	($24,870,231)	($350,092,987)	($298,981,000)
Cost Adjustment: In-Progress Construction	N/A	N/A	$0
Cost Adjustment: In-Progress Lease	N/A	N/A	$0
Estimated Facilities Costs (PV)	($631,616,575)	($1,282,982,239)	($1,302,279,468)

Table 69 – Operational Costs by COA

	Status Quo	Modernization	VA Recommendation
VA Direct	($3,788,984,158)	($3,788,984,158)	($3,788,984,158)
Fixed Direct	($267,246,845)	($267,246,845)	($267,246,845)
VA Specific Direct	($138,228,534)	($138,228,534)	($138,228,534)
Indirect	($2,055,270,032)	($2,055,270,032)	($2,055,270,032)
VA Specific Indirect	($303,611,084)	($303,611,084)	($303,611,084)
Research and Education	($342,260)	($342,260)	($342,260)
VA Overhead	($342,756,340)	($342,756,340)	($342,756,340)
VA Care Operational Cost Total (PV)	($6,896,439,253)	($6,896,439,253)	($6,896,439,253)
CC Direct	($1,416,111,804)	($1,416,111,804)	($1,416,111,804)
Delivery and Operations	($61,002,029)	($61,002,029)	($61,002,029)

	Status Quo	Modernization	VA Recommendation
Care Coordination	($57,141,541)	($57,141,541)	($57,141,541)
CC Overhead	($78,362,445)	($78,362,445)	($78,362,445)
Admin PMPM	($1,116,563,266)	($1,116,563,266)	($1,116,563,266)
Non-VA Care Operational Cost Total (PV)	($2,729,181,085)	($2,729,181,085)	($2,729,181,085)
Estimated Operational Costs (PV)	($9,625,620,338)	($9,625,620,338)	($9,625,620,338)

Appendix B – VISN 21 South Valley: 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	60	71	60	Adequately Supplied
IP Med/Surg	50	60	45	Under Supplied
IP MH	10	12	12	Adequately 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	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 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	83.8%	83.8%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of VA-provided OP Primary Care	83.8%	83.8%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of VA-provided OP Specialty Care	97.6%	97.6%	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	98.6%	98.6%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	99.7%	99.7%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Mental Health	83.8%	83.8%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Primary Care	83.8%	83.8%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of VA-provided OP Specialty Care	97.6%	97.6%	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	98.6%	98.6%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	99.7%	99.7%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Mental Health	83.8%	86.7%	Increased 1% or more

COA	Measure	Current	Future	Result
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Primary Care	83.8%	86.7%	Increased 1% or more
VA Recommendation	% of enrollees within 60 minutes of VA-provided OP Specialty Care	97.6%	99.0%	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	98.6%	98.6%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	99.7%	99.7%	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?
(V21) (570) Fresno	1949	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
(V21) (570) Fresno	IP Med	20 ADC	Yes	Maintain
(V21) (570) Fresno	IP Surg	1,600 Cases	Yes	Maintain
(V21) (570) Fresno	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?
(V21) (570) Fresno	1949	N/A	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?
(V21) Fresno OP Surgery Partnership	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
(V21) (570) Fresno	No impact on training	Maintains or Has Plan to Transition	No PRC Designation	Increases Research Opportunities, Increases Training Opportunities

VISN 21 North Coast

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 combined VISN 21 North Coast Market due to its leading Cost Benefit Index (CBI) score. The CBI score for the VA Recommendation COA (1.47) is 35.0% lower than the Status Quo COA (2.26) and 13.9% lower than the Modernization COA (1.70).

The VA Recommendation COA is $1.0 B (5.6%) more expensive than the Status Quo COA and $332.9 M (1.8%) 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 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 79 – CBI Scores by COA

	Status Quo	Modernization	VA Recommendation
COA PV ($)	($18,068,183,759)	($18,747,973,233)	($19,080,878,147)
Benefit Analysis Score	8	11	13
CBI (Normalized in $Billions)	2.26	1.70	1.47
CBI % Change vs. Status Quo	N/A	-24.5%	-35.0%
CBI % Change vs. Modernization	N/A	N/A	-13.9%

Table 80 - Cost Analysis Cost Variance by COA

Cost Variance	Status Quo	Modernization	VA Recommendation
Capital Cost Variance vs. Status Quo	N/A	($679,789,474)	($1,069,484,693)
Operational Cost Variance vs. Status Quo	N/A	$0	$56,790,305
Estimated Total Cost Variance vs. Status Quo	N/A	($679,789,474)	($1,012,694,388)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	($332,904,914)

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 81 – Benefit Analysis Scores by COA

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

VA Recommendation

The VA Recommendation for the VISN 21 North Coast Market COA is detailed below.

- Modernize and realign the San Francisco VAMC by:
  - Modernizing the inpatient medical and surgical space
  - Relocating RRTP services from stand-alone VA facilities in San Francisco to community providers and discontinuing those services within the stand-alone VA facilities in San Francisco
- Modernize and realign services by establishing a new stand-alone CLC in the vicinity of Santa Rosa, California
- Modernize and realign services by establishing a new stand-alone CLC in the vicinity of Oakland/Alameda Point, California
- Modernize and realign outpatient facilities in the market by:
  - Establishing a new HCC in the vicinity of Oakland/Alameda Point, California
  - Relocating the Clearlake MS CBOC to a new site in the vicinity of Lakeport, California, and closing the existing Clearlake MS CBOC
  - Relocating all services to the proposed San Francisco/Alameda Point HCC and closing the Oakland MS CBOC
  - Relocating all services to the proposed San Francisco/Alameda Point HCC and closing the Twenty First Street OOS

Cost Analysis

The Cost Analysis highlighted the estimated Present Value (PV) of each COA for the VISN 21 North Coast Market across a 30-year horizon. The cost of the VA Recommendation COA ($19.1 B) was higher than the Status Quo COA ($18.1 B) and higher than the Modernization COA ($18.7 B).

For the VISN 21 North Coast Market, the VA Recommendation COA is $1.0 B (5.6%) more expensive than the Status Quo COA and $332.9 M (1.8%) 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 21 North Coast: Capital and Operational Costs Detail.

Table 82 – Total Cost Summary by COA

	Status Quo	Modernization	VA Recommendation
Total Costs (PV)	($18,068,183,759)	($18,747,973,233)	($19,080,878,147)
Capital Cost Variance vs. Status Quo	N/A	($679,789,474)	($1,069,484,693)
Operational Cost Variance vs. Status Quo	N/A	$0	$56,790,305
Non-VA Care Operational Cost Variance	N/A	$0	($15,733,735)
VA Care Operational Cost Variance	N/A	$0	$72,524,040
Estimated Total Cost Variance vs. Status Quo	N/A	($679,789,474)	($1,012,694,388)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	($332,904,914)

Benefit Analysis

This section describes the non-financial benefit analysis results for the VISN 21 North Coast 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

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

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Mission	2	2	3
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 21 North Coast: 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 21 North Coast for this domain.

Table 84 – 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 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 Oakland/Alameda Point HCC to provide primary care, outpatient mental health, specialty care, and outpatient surgical services; 76,031 enrollees live within 60 minutes of the proposed facility
- Establishes a new Santa Rosa CLC to provide inpatient community living center services; 52,499 enrollees live within 60 minutes of the proposed facility
- Establishes a new Oakland/Alameda Point CLC to provide inpatient community living center services; 72,155 enrollees live within 60 minutes of the proposed facility
- Establishes the new Santa Rosa outpatient 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 21 North Coast for this domain.

Table 85 – 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 was maintained within 1%, and outpatient mental health care decreased 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 21 North Coast for this domain.

Table 86 – 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 21 North Coast for this domain.

Table 87 – 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 Santa Rosa outpatient 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 21 North Coast for this domain.

Table 88 – 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 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 21 North Coast 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 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	2.26	1.70	1.47	VA Recommendation
+1	2.01	1.56	1.47	VA Recommendation
+2	1.81	1.44	1.47	Modernization
+3	1.64	1.34	1.47	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%	2.26	1.70	1.47	VA Recommendation
50%	2.39	1.83	1.59	VA Recommendation
100%	2.51	1.95	1.71	VA Recommendation
150%	2.64	2.07	1.83	VA Recommendation
200%	2.77	2.20	1.94	VA Recommendation
250%	2.89	2.32	2.06	VA Recommendation
300%	3.02	2.44	2.18	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%	2.26	1.70	1.47	VA Recommendation
50%	3.07	2.29	1.96	VA Recommendation
100%	3.88	2.88	2.46	VA Recommendation
150%	4.69	3.47	2.95	VA Recommendation
200%	5.50	4.06	3.45	VA Recommendation
250%	6.31	4.65	3.95	VA Recommendation
300%	7.12	5.24	4.44	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%	2.26	1.70	1.47	VA Recommendation
50%	2.45	1.84	1.59	VA Recommendation
100%	2.64	1.98	1.71	VA Recommendation
150%	2.84	2.12	1.83	VA Recommendation
200%	3.03	2.26	1.94	VA Recommendation
250%	3.22	2.40	2.06	VA Recommendation

Non-VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
300%	3.41	2.55	2.18	VA Recommendation

Appendix A – VISN 21 North Coast: Capital and Operational Costs Detail

Table 94 – Capital Costs by COA

	Status Quo	Modernization	VA Recommendation
VAMC Ideal Square Footage	-	1,509,959	1,588,152
Build New GSF	-	747,673	805,594
Renovate In Place GSF	-	237,456	237,041
Matched Convert To GSF	-	263,144	263,559
Demolition GSF	-	545,419	545,419
Total Build New Cost	$0	($999,795,561)	($1,067,929,421)
Total Renovate In Place Cost	$0	($99,730,721)	($99,498,487)
Total Matched Convert To Cost	$0	($169,119,904)	($170,624,245)
Total Demolition Cost	$0	($27,747,003)	($27,747,003)
Total Lease Build-Out Cost	$0	($46,345,034)	($84,887,259)
Total New Lease Cost	$0	($277,880,150)	($509,187,390)
Total Existing Lease Cost	($69,105,641)	($69,105,579)	($60,222,825)
NRM Costs for Owned Facilities	($1,173,133,071)	($176,276,505)	($185,405,000)
FCA Correction Cost	($560,379,430)	N/A	N/A
Estimated Base Modernization Cost	($1,802,618,142)	($1,866,000,457)	($2,205,501,631)
Additional Common/Lobby Space Needed (GSF)	-	261,686	281,958
Cost of Additional Common/Lobby Space	$0	($293,469,901)	($316,204,533)
Additional Parking Cost	$0	($214,619,437)	($236,815,560)

	Status Quo	Modernization	VA Recommendation
Potential Land Acquisition Cost	$0	($74,916)	($423,879)
Seismic Correction Cost	($81,895,736)	($15,634,702)	($15,634,702)
Non-Building FCA Correction Cost	($144,400,521)	($131,712,912)	($131,712,913)
Activation Costs	$0	($187,191,548)	($192,105,874)
Estimated Additional Costs for Modernization	($226,296,257)	($842,703,416)	($892,897,460)
Cost Adjustment: In-Progress Construction	N/A	N/A	$0
Cost Adjustment: In-Progress Lease	N/A	N/A	$0
Estimated Facilities Costs (PV)	($2,028,914,398)	($2,708,703,873)	($3,098,399,092)

Table 95 – Operational Costs by COA

	Status Quo	Modernization	VA Recommendation
VA Direct	($6,570,974,297)	($6,570,974,297)	($6,532,372,103)
Fixed Direct	($731,581,370)	($731,581,370)	($725,754,986)
VA Specific Direct	($572,720,846)	($572,720,846)	($570,349,895)
Indirect	($4,006,043,947)	($4,006,043,947)	($3,985,852,151)
VA Specific Indirect	($419,971,331)	($419,971,331)	($417,986,006)
Research and Education	($38,316,468)	($38,316,468)	($38,211,413)
VA Overhead	($616,953,035)	($616,953,035)	($613,510,701)
VA Care Operational Cost Total (PV)	($12,956,561,294)	($12,956,561,294)	($12,884,037,254)
CC Direct	($1,528,281,710)	($1,528,281,710)	($1,547,343,731)
Delivery and Operations	($65,739,842)	($65,739,842)	($66,178,003)

	Status Quo	Modernization	VA Recommendation
Care Coordination	($67,310,306)	($67,310,306)	($67,699,327)
CC Overhead	($86,709,177)	($86,709,177)	($87,294,756)
Admin PMPM	($1,334,667,031)	($1,334,667,031)	($1,329,925,985)
Non-VA Care Operational Cost Total (PV)	($3,082,708,066)	($3,082,708,066)	($3,098,441,801)
Estimated Operational Costs (PV)	($16,039,269,361)	($16,039,269,361)	($15,982,479,055)

Appendix B – VISN 21 North Coast: 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	149	179	231	Over Supplied
IP Med/Surg	60	72	109	Over Supplied
IP MH	15	18	0	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	18	67%
Under Supplied	9	33%

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	92.3%	92.3%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of VA-provided OP Primary Care	92.3%	92.3%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of VA-provided OP Specialty Care	97.1%	97.1%	Maintained within 1%

COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	99.0%	99.0%	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	99.8%	99.8%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Mental Health	92.3%	92.3%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Primary Care	92.3%	92.3%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of VA-provided OP Specialty Care	97.1%	97.1%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	99.0%	99.0%	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	99.8%	99.8%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Mental Health	92.3%	91.0%	Decreased 1% or more

COA	Measure	Current	Future	Result
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Primary Care	92.3%	91.0%	Decreased 1% or more
VA Recommendation	% of enrollees within 60 minutes of VA-provided OP Specialty Care	97.1%	97.1%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	99.0%	99.0%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.1%	99.2%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	99.8%	99.8%	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?
(V21) (640A4) Palo Alto Livermore	1949	Yes
(V21) (662) San Francisco	1976	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 101 – Quality Key Data Points for Scoring – Inpatient Acute Demand

Facility	Service	Demand Guideline	Meets or Exceeds Guideline?	VA Recommendation
(V21) (662) San Francisco	IP Med	20 ADC	Yes	Maintain
(V21) (662) San Francisco	IP Surg	1,600 Cases	Yes	Maintain
(V21) (662) San Francisco	IP MH	8 ADC	No Service	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?
(V21) (640A4) Palo Alto Livermore	1949	1996	Yes
(V21) (662) San Francisco	1976	2006	No

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?
(V21) Santa Rosa OP Surgical Partnership	Yes

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
(V21) (662) San Francisco	No impact on training	Maintains or Has Plan to Transition	Maintains PRC-designation	Increases Research Opportunities, Increases Training Opportunities

VISN 21 North Valley

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 21 North Valley Market due to its leading Cost Benefit Index (CBI) score. The CBI score for the VA Recommendation COA (1.71) is 25.8% lower than the Status Quo COA (2.31) and 25.6% lower than the Modernization COA (2.30).

The VA Recommendation COA is $2.6 B (11.3%) more expensive than the Status Quo COA and $372.0 M (1.5%) 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 15-point benefits score compared to 10 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 ($)	($23,087,966,764)	($25,316,141,343)	($25,688,187,966)
Benefit Analysis Score	10	11	15
CBI (Normalized in $Billions)	2.31	2.30	1.71
CBI % Change vs. Status Quo	N/A	-0.3%	-25.8%
CBI % Change vs. Modernization	N/A	N/A	-25.6%

Table 106 – Cost Analysis Cost Variance by COA

Cost Variance	Status Quo	Modernization	VA Recommendation
Capital Cost Variance vs. Status Quo	N/A	($2,228,174,579)	($2,600,221,202)
Operational Cost Variance vs. Status Quo	N/A	$0	$0
Estimated Total Cost Variance vs. Status Quo	N/A	($2,228,174,579)	($2,600,221,202)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	($372,046,624)

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	3	3	3
Facilities and Sustainability	2	2	3
Mission	2	2	3
Total Benefit Score	**10**	**11**	**15**

VA Recommendation

The VA Recommendation for the VISN 21 North Valley Market COA is detailed below.

- Modernize and realign the Sacramento VAMC by:
  - Modernizing the inpatient medical and surgical space
  - Establishing a new RRTP
  - Establishing a new CLC
  - Constructing a new research building
- Modernize and realign services by establishing a new CLC in the vicinity of Stockton, California
- Modernize and realign the Martinez VAMC by:
  - Modernizing the CLC
  - Relocating outpatient surgical services to current or future VA facilities or a strategic collaboration and discontinuing those services at the Martinez VAMC
- Modernize and realign outpatient facilities in the market by:
  - Establishing a new MS CBOC in the vicinity of Elk Grove, California area
  - Establishing a new MS CBOC in the vicinity of Placerville, California area
  - Establishing a new MS CBOC in the vicinity of Antioch, California area
  - Establishing a new CBOC in the vicinity of Woodland, California area
  - Establishing a new CBOC in the vicinity of Yountville, California area

Cost Analysis

The Cost Analysis highlighted the estimated Present Value (PV) of each COA for the VISN 21 North Valley Market across a 30-year horizon. The cost of the VA Recommendation COA ($25.7 B) was higher than the Status Quo COA ($23.1 B) and the Modernization COA ($25.3 B).

For the VISN 21 North Valley Market, the VA Recommendation COA is $2.6 B (11.3%) more expensive than the Status Quo COA and $372.0 M (1.5%) 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 21 North Valley: Capital and Operational Costs Detail.

Table 108 – Total Cost Summary by COA

	Status Quo	Modernization	VA Recommendation
Total Costs (PV)	($23,087,966,764)	($25,316,141,343)	($25,688,187,966)
Capital Cost Variance vs. Status Quo	N/A	($2,228,174,579)	($2,600,221,202)
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	($2,228,174,579)	($2,600,221,202)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	($372,046,624)

Benefit Analysis

This section describes the non-financial benefit analysis results for the VISN 21 North Valley 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	3	3	3

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Facilities and Sustainability	2	2	3
Mission	2	2	3
Total Benefit Score	**10**	**11**	**15**

The scoring and rationale within each domain are described in the following sections. The data underlying the analysis is provided in Appendix B – VISN 21 North Valley: 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 21 North Valley 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 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 Stockton CLC to provide inpatient community living center services; 57,172 enrollees live within 60 minutes of the proposed facility
- Establishes a new Antioch MS CBOC to provide primary care, specialty care, and outpatient mental health services; there are 7,532 enrollees for which the proposed facility is the closest VA point of care within 60 minutes

- Establishes a new Placerville MS CBOC to provide primary care, specialty care, and outpatient mental health services; there are 5,131 enrollees for which the proposed facility is the closest VA point of care within 60 minutes
- Establishes a new Elk Grove MS CBOC to provide primary care, specialty care, and outpatient mental health services; there are 10,388 enrollees for which the proposed facility is the closest VA point of care within 60 minutes
- Establishes a new Yolo CBOC in the vicinity of Woodland, California to provide primary care and outpatient mental health services; there are 2,876 enrollees for which the proposed facility is the closest VA point of care within 30 minutes
- Expands the Sierra Foothills CBOC to a MS CBOC, adding specialty care services
- Expands the Yuba City CBOC to a MS CBOC, adding specialty care services
- Establishes the new Chico outpatient surgery partnership
- Establishes the new Redding outpatient 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 21 North Valley 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 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 21 North Valley for this domain.

Table 112 – 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. The COA includes the following actions to ensure adequate demand across inpatient acute service lines throughout the market:

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 21 North Valley for this domain.

Table 113 – Facilities and Sustainability Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Facilities and Sustainability	2	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 2 for two reasons. First, the COA's main patient care facilities are still within their useful life, indicating they can be sustained over the coming years. Second, while the COA includes modern 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).

Modernization: The COA received a score of 2 for two reasons. First, the COA's main patient care facilities are still within their useful life, indicating they can be sustained over the coming years. Second, while the COA includes modern 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 Chico outpatient surgery partnership
- Establishes the Redding outpatient surgery partnership
- Enhances the partnership with the David Grant Medical Center

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 21 North Valley 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

Subdomain	Status Quo	Modernization	VA Recommendation
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 21 North Valley 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 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	2.31	2.30	1.71	VA Recommendation
+1	2.10	2.11	1.71	VA Recommendation
+2	1.92	1.95	1.71	VA Recommendation
+3	1.78	1.81	1.71	VA Recommendation

Table 117 – Sensitivity Analyses – VA Capital Cost Increase

VA Capital Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	2.31	2.30	1.71	VA Recommendation

VA Capital Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
50%	2.34	2.43	1.82	VA Recommendation
100%	2.37	2.56	1.93	VA Recommendation
150%	2.40	2.69	2.04	VA Recommendation
200%	2.43	2.82	2.14	VA Recommendation
250%	2.47	2.95	2.25	VA Recommendation
300%	2.50	3.08	2.36	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%	2.31	2.30	1.71	VA Recommendation
50%	3.04	2.96	2.20	VA Recommendation
100%	3.77	3.63	2.68	VA Recommendation
150%	4.49	4.29	3.17	VA Recommendation
200%	5.22	4.95	3.66	VA Recommendation
250%	5.95	5.61	4.14	VA Recommendation
300%	6.68	6.28	4.63	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%	2.31	2.30	1.71	VA Recommendation
50%	2.70	2.66	1.98	VA Recommendation
100%	3.10	3.02	2.24	VA Recommendation
150%	3.49	3.38	2.50	VA Recommendation
200%	3.89	3.73	2.76	VA Recommendation
250%	4.28	4.09	3.03	VA Recommendation
300%	4.67	4.45	3.29	VA Recommendation

Appendix A – VISN 21 North Valley: Capital and Operational Costs Detail

Table 120 – Capital Costs by COA

	Status Quo	Modernization	VA Recommendation
VAMC Ideal Square Footage	-	1,954,383	2,140,599
Build New GSF	-	850,503	988,441
Renovate In Place GSF	-	462,133	474,187
Matched Convert To GSF	-	344,071	332,017
Demolition GSF	-	200,532	200,532
Total Build New Cost	$0	($1,019,608,138)	($1,178,395,338)
Total Renovate In Place Cost	$0	($178,969,984)	($187,584,986)
Total Matched Convert To Cost	$0	($170,535,629)	($163,910,890)
Total Demolition Cost	$0	($9,033,502)	($9,033,502)
Total Lease Build-Out Cost	$0	($48,070,959)	($69,206,074)
Total New Lease Cost	$0	($280,596,377)	($418,560,968)
Total Existing Lease Cost	($141,020,751)	($141,020,639)	($114,821,531)
NRM Costs for Owned Facilities	($375,215,501)	($228,159,781)	($249,899,159)
FCA Correction Cost	($83,671,002)	N/A	N/A
Estimated Base Modernization Cost	($599,907,254)	($2,075,995,009)	($2,391,412,448)
Additional Common/Lobby Space Needed (GSF)	-	297,676	345,954
Cost of Additional Common/Lobby Space	$0	($295,606,792)	($346,217,155)
Additional Parking Cost	$0	($183,541,836)	($188,808,975)

	Status Quo	Modernization	VA Recommendation
Potential Land Acquisition Cost	$0	($5,902,475)	($9,020,567)
Seismic Correction Cost	($12,652,597)	($10,136,644)	($10,136,644)
Non-Building FCA Correction Cost	($17,645,408)	($17,645,406)	($17,645,408)
Activation Costs	$0	($269,551,676)	($267,185,264)
Estimated Additional Costs for Modernization	($30,298,005)	($782,384,829)	($839,014,014)
Cost Adjustment: In-Progress Construction	N/A	N/A	$0
Cost Adjustment: In-Progress Lease	N/A	N/A	$0
Estimated Facilities Costs (PV)	($630,205,259)	($2,858,379,838)	($3,230,426,462)

Table 121 – Operational Costs by COA

	Status Quo	Modernization	VA Recommendation
VA Direct	($7,871,347,680)	($7,871,347,680)	($7,871,347,680)
Fixed Direct	($1,219,223,264)	($1,219,223,264)	($1,219,223,264)
VA Specific Direct	($251,344,110)	($251,344,110)	($251,344,110)
Indirect	($3,835,164,628)	($3,835,164,628)	($3,835,164,628)
VA Specific Indirect	($660,302,550)	($660,302,550)	($660,302,550)
Research and Education	($2,017,470)	($2,017,470)	($2,017,470)
VA Overhead	($734,207,648)	($734,207,648)	($734,207,648)
VA Care Operational Cost Total (PV)	($14,573,607,350)	($14,573,607,350)	($14,573,607,350)
CC Direct	($5,032,964,087)	($5,032,964,087)	($5,032,964,087)
Delivery and Operations	($184,618,221)	($184,618,221)	($184,618,221)

	Status Quo	Modernization	VA Recommendation
Care Coordination	($169,933,646)	($169,933,646)	($169,933,646)
CC Overhead	($239,985,105)	($239,985,105)	($239,985,105)
Admin PMPM	($2,256,653,095)	($2,256,653,095)	($2,256,653,095)
Non-VA Care Operational Cost Total (PV)	($7,884,154,155)	($7,884,154,155)	($7,884,154,155)
Estimated Operational Costs (PV)	($22,457,761,505)	($22,457,761,505)	($22,457,761,505)

Appendix B – VISN 21 North Valley: 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	159	191	120	Under Supplied
IP Med/Surg	61	73	55	Under Supplied
IP MH	18	21	16	Under 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	12	44%
Under Supplied	15	56%

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	87.7%	87.7%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of VA-provided OP Primary Care	87.8%	87.8%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of VA-provided OP Specialty Care	96.5%	96.5%	Maintained within 1%

COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	98.6%	98.6%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	98.8%	98.8%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	99.8%	99.8%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Mental Health	87.7%	87.7%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Primary Care	87.8%	87.8%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of VA-provided OP Specialty Care	96.5%	96.5%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	98.6%	98.6%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	98.8%	98.8%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	99.8%	99.8%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Mental Health	87.7%	92.1%	Increased 1% or more

COA	Measure	Current	Future	Result
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Primary Care	87.8%	92.1%	Increased 1% or more
VA Recommendation	% of enrollees within 60 minutes of VA-provided OP Specialty Care	96.5%	97.4%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	98.6%	98.6%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	98.8%	99.2%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	99.8%	99.8%	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?
(V21) (612A4) Sacramento	2002	No
(V21) (612GF) Martinez	1992	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 127 – Quality Key Data Points for Scoring – Inpatient Acute Demand

Facility	Service	Demand Guideline	Meets or Exceeds Guideline?	VA Recommendation
(V21) (612A4) Sacramento	IP Med	20 ADC	Yes	Maintain
(V21) (612A4) Sacramento	IP Surg	1,600 Cases	Yes	Maintain
(V21) (612A4) Sacramento	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?
(V21) (612A4) Sacramento	2002	N/A	No
(V21) (612GF) Martinez	1992	N/A	No

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?
(V21) David Grant Medical Center IP/OP Partnership	Yes
(V21) Chico OP Surgical Partnership	Yes

Facility	Expands VA's Ability to Recruit/Retain?
(V21) Redding OP Surgical Partnership	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
(V21) (612A4) Sacramento	No impact on training	Maintains or Has Plan to Transition	No PRC Designation	Increases Research Opportunities, Increases Training Opportunities

VISN 21 Pacific Islands

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 combined VISN 21 Pacific Islands Market due to its leading Cost Benefit Index (CBI) score. The CBI score for the VA Recommendation COA (0.94) is 29.1% lower than the Status Quo COA (1.33) and 26.1% lower than the Modernization COA (1.27).

The VA Recommendation COA is $851.4 M (6.4%) more expensive than the Status Quo COA and $101.4 M (0.7%) 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 15-point benefits score compared to 10 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 131 – CBI Scores by COA

	Status Quo	Modernization	VA Recommendation
COA PV ($)	($13,274,822,617)	($14,024,801,244)	($14,126,239,470)
Benefit Analysis Score	10	11	15
CBI (Normalized in $Billions)	1.33	1.27	0.94
CBI % Changed vs. Status Quo	N/A	-4.0%	-29.1%
CBI % Change vs. Modernization	N/A	N/A	-26.1%

Table 132 – Cost Analysis Cost Variance by COA

Cost Variance	Status Quo	Modernization	VA Recommendation
Capital Cost Variance vs. Status Quo	N/A	($749,978,628)	($851,416,853)
Operational Cost Variance vs. Status Quo	N/A	$0	$0
Estimated Total Cost Variance vs. Status Quo	N/A	($749,978,628)	($851,416,853)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	($101,438,225)

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	3	3	3
Facilities and Sustainability	2	2	3
Mission	2	2	3
Total Benefit Score	**10**	**11**	**15**

VA Recommendation

The VA Recommendation for the VISN 21 Pacific Islands Market COA is detailed below.

- Modernize and realign the Honolulu VAMC by:
  - Modernizing the CLC
  - Relocating RRTP services to a new stand-alone RRTP in the vicinity of Honolulu, Hawaii, and closing the existing RRTP
  - Enhancing the strategic collaboration with DoD's Tripler Army Medical Center to improve the delivery of inpatient medical and surgical and outpatient surgical services
- Modernize and realign outpatient facilities in the market by:
  - Establishing a new CBOC in the vicinity of Haleiwa, Hawaii
  - Relocating all services to the in-progress Kalaeloa MS CBOC and closing the Leeward CBOC

Cost Analysis

The Cost Analysis highlighted the estimated Present Value (PV) of each COA for the VISN 21 Pacific Islands Market across a 30-year horizon. The cost of the VA Recommendation COA ($14.1 B) was higher than the Status Quo COA ($13.3 B) and higher than the Modernization COA ($14.0 B).

For the VISN 21 Pacific Islands Market, the VA Recommendation COA is $851.4 M (6.4%) more expensive than the Status Quo COA and $101.4 M (0.7%) 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 21 Pacific Islands: Capital and Operational Costs Detail.

Table 134 – Total Cost Summary by COA

	Status Quo	Modernization	VA Recommendation
Total Costs (PV)	($13,274,822,617)	($14,024,801,244)	($14,126,239,470)
Capital Cost Variance vs. Status Quo	N/A	($749,978,628)	($851,416,853)
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	($749,978,628)	($851,416,853)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	($101,438,225)

Benefit Analysis

This section describes the non-financial benefit analysis results for the VISN 21 Pacific Islands 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	3	3	3
Facilities and Sustainability	2	2	3
Mission	2	2	3

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Total Benefit Score	**10**	**11**	**15**

The scoring and rationale within each domain are described in the following sections. The data underlying the analysis is provided in Appendix B – VISN 21 Pacific Islands: 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 21 Pacific Islands 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 future Veteran demand (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 demand (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 Hilo 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 21 Pacific Islands 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 21 Pacific Islands for this domain.

Table 138 – 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 21 Pacific Islands for this domain.

Table 139 – Facilities and Sustainability Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Facilities and Sustainability	2	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 2 for two reasons. First, the COA's main patient care facilities are still within their useful life, indicating they can be sustained over the coming years. Second, while the COA includes modern 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).

Modernization: The COA received a score of 2 for two reasons. First, the COA's main patient care facilities are still within their useful life, indicating they can be sustained over the coming years. Second, while the COA includes modern 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:

- Enhances the Tripler Army Medical Center partnership
- Enhances the Naval Hospital of Guam 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 21 Pacific Islands 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 21 Pacific Islands 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 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	1.33	1.27	0.94	VA Recommendation
+1	1.21	1.17	0.94	VA Recommendation

Status Quo and Modernization Benefit Score Change	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
+2	1.11	1.08	0.94	VA Recommendation
+3	1.02	1.00	0.94	VA Recommendation

Table 143 – Sensitivity Analyses – VA Capital Cost Increase

VA Capital Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.33	1.27	0.94	VA Recommendation
50%	1.33	1.32	0.97	VA Recommendation
100%	1.34	1.36	1.01	VA Recommendation
150%	1.35	1.40	1.04	VA Recommendation
200%	1.35	1.44	1.07	VA Recommendation
250%	1.36	1.48	1.11	VA Recommendation
300%	1.37	1.52	1.14	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%	1.33	1.27	0.94	VA Recommendation
50%	1.61	1.53	1.13	VA Recommendation

VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
100%	1.89	1.79	1.32	VA Recommendation
150%	2.17	2.04	1.50	VA Recommendation
200%	2.45	2.30	1.69	VA Recommendation
250%	2.73	2.55	1.88	VA Recommendation
300%	3.01	2.81	2.06	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%	1.33	1.27	0.94	VA Recommendation
50%	1.70	1.62	1.19	VA Recommendation
100%	2.08	1.96	1.44	VA Recommendation
150%	2.46	2.30	1.70	VA Recommendation
200%	2.83	2.64	1.95	VA Recommendation
250%	3.21	2.99	2.20	VA Recommendation
300%	3.59	3.33	2.45	VA Recommendation

Appendix A – VISN 21 Pacific Islands: Capital and Operational Costs Detail

Table 146 – Capital Costs by COA

	Status Quo	Modernization	VA Recommendation
VAMC Ideal Square Footage	-	562,511	599,130
Build New GSF	-	203,788	230,913
Renovate In Place GSF	-	162,762	153,196
Matched Convert To GSF	-	124,635	134,201
Demolition GSF	-	-	-
Total Build New Cost	$0	($251,182,244)	($280,331,899)
Total Renovate In Place Cost	$0	($82,303,299)	($76,953,465)
Total Matched Convert To Cost	$0	($62,329,979)	($67,444,971)
Total Demolition Cost	$0	$0	$0
Total Lease Build-Out Cost	$0	($30,019,110)	($44,170,222)
Total New Lease Cost	$0	($199,756,975)	($293,923,185)
Total Existing Lease Cost	($36,342,494)	($36,342,442)	($30,182,064)
NRM Costs for Owned Facilities	($69,088,647)	($65,668,980)	($69,943,948)
FCA Correction Cost	($16,703,668)	N/A	N/A
Estimated Base Modernization Cost	($122,134,809)	($727,603,029)	($862,949,753)
Additional Common/Lobby Space Needed (GSF)	-	71,326	80,820
Cost of Additional Common/Lobby Space	$0	($73,272,400)	($83,025,252)
Additional Parking Cost	$0	($15,275,774)	($26,771,359)

	Status Quo	Modernization	VA Recommendation
Potential Land Acquisition Cost	$0	($2,020,694)	($3,065,830)
Seismic Correction Cost	($1,803,234)	($1,803,234)	($1,803,234)
Non-Building FCA Correction Cost	($6,664,527)	($6,664,527)	($6,664,527)
Activation Costs	$0	($53,941,540)	($55,876,608)
Estimated Additional Costs for Modernization	($8,467,762)	($152,978,169)	($177,206,811)
Cost Adjustment: In-Progress Construction	N/A	N/A	$0
Cost Adjustment: In-Progress Lease	N/A	N/A	$58,137,141
Estimated Facilities Costs (PV)	($130,602,570)	($880,581,198)	($982,019,423)

Table 147 – Operational Costs by COA

	Status Quo	Modernization	VA Recommendation
VA Direct	($2,784,567,950)	($2,784,567,950)	($2,784,567,950)
Fixed Direct	($197,806,094)	($197,806,094)	($197,806,094)
VA Specific Direct	($65,487,537)	($65,487,537)	($65,487,537)
Indirect	($2,051,575,607)	($2,051,575,607)	($2,051,575,607)
VA Specific Indirect	($253,100,445)	($253,100,445)	($253,100,445)
Research and Education	($313,547)	($313,547)	($313,547)
VA Overhead	($258,259,678)	($258,259,678)	($258,259,678)
VA Care Operational Cost Total (PV)	($5,611,110,857)	($5,611,110,857)	($5,611,110,857)
CC Direct	($5,236,846,050)	($5,236,846,050)	($5,236,846,050)
Delivery and Operations	($225,954,077)	($225,954,077)	($225,954,077)

	Status Quo	Modernization	VA Recommendation
Care Coordination	($239,078,382)	($239,078,382)	($239,078,382)
CC Overhead	($283,952,128)	($283,952,128)	($283,952,128)
Admin PMPM	($1,547,278,553)	($1,547,278,553)	($1,547,278,553)
Non-VA Care Operational Cost Total (PV)	($7,533,109,190)	($7,533,109,190)	($7,533,109,190)
Estimated Operational Costs (PV)	($13,144,220,046)	($13,144,220,046)	($13,144,220,046)

Appendix B – VISN 21 Pacific Islands: 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	58	69	60	Adequately Supplied
IP Med/Surg	2	3	0	Under Supplied
IP MH	9	10	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 149 – Demand and Supply Key Data Points for Scoring – Outpatient (OP)

Physician Supply Adequacy	Count of Specialties	Percentage
Adequately Supplied	3	11%
Under Supplied	24	89%

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	87.5%	87.5%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of VA-provided OP Primary Care	88.8%	88.8%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of VA-provided OP Specialty Care	76.3%	76.3%	Maintained within 1%

COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	95.8%	95.8%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	96.8%	96.8%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	97.6%	97.6%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Mental Health	87.5%	87.5%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Primary Care	88.8%	88.8%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of VA-provided OP Specialty Care	76.3%	76.3%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	95.8%	95.8%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	96.8%	96.8%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	97.6%	97.6%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Mental Health	87.5%	86.9%	Maintained within 1%

COA	Measure	Current	Future	Result
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Primary Care	88.8%	88.2%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of VA-provided OP Specialty Care	76.3%	82.9%	Increased 1% or more
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	95.8%	95.8%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	96.8%	96.8%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	97.6%	97.6%	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?
(V21) (459) Honolulu	1999	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 153 – Quality Key Data Points for Scoring – Inpatient Acute Demand

Facility	Service	Demand Guideline	Meets or Exceeds Guideline?	VA Recommendation
N/A	N/A	N/A	N/A	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 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?
(V21) (459) Honolulu	1999	N/A	No

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?
(V21) Tripler Army Medical Center IP/OP Partnership	Yes
(V21) Naval Hospital of Guam IP/OP Partnership	Yes

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
(V21) (459) Honolulu	No impact on training	Maintains or Has Plan to Transition	No PRC Designation	Increases Research Opportunities, Increases Training Opportunities

VISN 21 Southern Nevada

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 21 Southern Nevada Market due to its leading Cost Benefit Index (CBI) score. The CBI score for the VA Recommendation COA (1.31) is 27.1% lower than the Status Quo COA (1.80) and 24.9% lower than the Modernization COA (1.75).

The VA Recommendation COA is $1.7 B (9.4%) more expensive than the Status Quo COA and $464.1 M (2.4%) 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 15-point benefits score compared to 10 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 157 – CBI Scores by COA

	Status Quo	Modernization	VA Recommendation
COA PV ($)	($18,035,360,257)	($19,260,283,578)	($19,724,422,871)
Benefit Analysis Score	10	11	15
CBI (Normalized in $Billions)	1.80	1.75	1.31
CBI % Change vs. Status Quo	N/A	-2.9%	-27.1%
CBI % Change vs. Modernization	N/A	N/A	-24.9%

Table 158 – Cost Analysis Cost Variance by COA

Cost Variance	Status Quo	Modernization	VA Recommendation
Capital Cost Variance vs. Status Quo	N/A	($1,224,923,321)	($1,689,062,614)
Operational Cost Variance vs. Status Quo	N/A	$0	$0
Estimated Total Cost Variance vs. Status Quo	N/A	($1,224,923,321)	($1,689,062,614)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	($464,139,293)

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	3
Quality	3	3	3
Facilities and Sustainability	2	2	3
Mission	2	2	3
Total Benefit Score	**10**	**11**	**15**

VA Recommendation

The VA Recommendation for the VISN 21 Southern Nevada Market COA is detailed below.

- Modernize and realign the North Las Vegas VAMC by:
  - Establishing CLC services at the North Las Vegas VAMC
  - Modernizing the inpatient mental health facility
- Modernize and realign outpatient facilities in the market by:
  - Establishing a new multi-specialty community-based outpatient clinic (MS CBOC) in the vicinity of Las Vegas, Nevada
  - Relocating the Laughlin CBOC to a new site in the vicinity of Bullhead City, Arizona and closing the existing Laughlin CBOC
  - Relocating the Lake Havasu City CBOC to a new site in the vicinity of Lake Havasu City, Arizona, and closing the existing Lake Havasu City CBOC
  - Relocating the Southeast Las Vegas CBOC to a new site in the vicinity of Southeast Las Vegas, Nevada, and closing the existing Southeast Las Vegas CBOC
  - Relocating the Southwest Las Vegas CBOC to a new site in the vicinity of Southwest Las Vegas, Nevada, and closing the existing Southwest Las Vegas CBOC
  - Relocating the Northwest Las Vegas CBOC to a new site in the vicinity of Northwest Las Vegas, Nevada, and closing the existing Northwest Las Vegas CBOC
  - Relocating all services to the proposed Las Vegas MS CBOC and closing the West Cheyenne OOS

Cost Analysis

The Cost Analysis highlighted the estimated Present Value (PV) of each COA for the VISN 21 Southern Nevada Market across a 30-year horizon. The cost of the VA Recommendation COA ($19.7 B) was higher than the Status Quo COA ($18.0 B) and the Modernization COA ($19.3 B).

For the VISN 21 Southern Nevada Market, the VA Recommendation COA is $1.7 B (9.4%) more expensive than the Status Quo COA and $464.1 M (2.4%) 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 21 Southern Nevada: Capital and Operational Costs Detail.

Table 160 – Total Cost Summary by COA

	Status Quo	Modernization	VA Recommendation
Total Costs (PV)	($18,035,360,257)	($19,260,283,578)	($19,724,422,871)
Capital Cost Variance vs. Status Quo	N/A	($1,224,923,321)	($1,689,062,614)
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	($1,224,923,321)	($1,689,062,614)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	($464,139,293)

Benefit Analysis

This section describes the non-financial benefit analysis results for the VISN 21 Southern Nevada 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 161 – 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

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Facilities and Sustainability	2	2	3
Mission	2	2	3
Total Benefit Score	**10**	**11**	**15**

The scoring and rationale within each domain are described in the following sections. The data underlying the analysis is provided in Appendix B – VISN 21 Southern Nevada: 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 21 Southern Nevada 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:

- Establishes a new Las Vegas Medical District MS CBOC to provide primary care, specialty care, and outpatient mental health services; there are 6,720 enrollees for which the proposed facility is the closest VA point of care within 60 minutes
- Establishes a new Bullhead City CBOC to provide primary care and outpatient mental health services; there are 4,238 enrollees for which the proposed facility is the closest VA point of care within 30 minutes
- Expands the Northwest Las Vegas CBOC to a MS CBOC, adding outpatient specialty care services.

- Expands the Southeast Las Vegas CBOC to a MS CBOC, adding outpatient specialty care services.
- Expands the Southwest Las Vegas CBOC to a MS CBOC, adding outpatient specialty care services.
- Expands the Kingman 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 21 Southern Nevada for this domain.

Table 163 – 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 21 Southern Nevada for this domain.

Table 164 – 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 21 Southern Nevada for this domain.

Table 165 – Facilities and Sustainability Scoring Summary

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Facilities and Sustainability	2	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 2 for two reasons. First, the COA's main patient care facilities are still within their useful life, indicating they can be sustained over the coming years. Second, while the COA includes modern 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).

Modernization: The COA received a score of 2 for two reasons. First, the COA's main patient care facilities are still within their useful life, indicating they can be sustained over the coming years. Second, while the COA includes modern 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:

- Enhances the Nellis Air Force Base 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 21 Southern Nevada 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 21 Southern Nevada 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 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	1.80	1.75	1.31	VA Recommendation
+1	1.64	1.61	1.31	VA Recommendation
+2	1.50	1.48	1.31	VA Recommendation
+3	1.39	1.38	1.31	VA Recommendation

Table 169 – Sensitivity Analyses – VA Capital Cost Increase

VA Capital Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.80	1.75	1.31	VA Recommendation
50%	1.82	1.82	1.38	VA Recommendation
100%	1.84	1.89	1.45	VA Recommendation
150%	1.86	1.97	1.52	VA Recommendation
200%	1.87	2.04	1.59	VA Recommendation
250%	1.89	2.11	1.65	VA Recommendation
300%	1.91	2.18	1.72	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%	1.80	1.75	1.31	VA Recommendation
50%	2.34	2.24	1.67	VA Recommendation
100%	2.88	2.73	2.03	VA Recommendation
150%	3.42	3.22	2.39	VA Recommendation
200%	3.95	3.71	2.75	VA Recommendation
250%	4.49	4.19	3.11	VA Recommendation
300%	5.03	4.68	3.47	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%	1.80	1.75	1.31	VA Recommendation
50%	2.15	2.07	1.55	VA Recommendation
100%	2.50	2.38	1.78	VA Recommendation
150%	2.84	2.70	2.01	VA Recommendation
200%	3.19	3.01	2.24	VA Recommendation
250%	3.54	3.33	2.47	VA Recommendation

Non-VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
300%	3.88	3.64	2.70	VA Recommendation

Appendix A – VISN 21 Southern Nevada: Capital and Operational Costs Detail

Table 172 – Capital Costs by COA

	Status Quo	Modernization	VA Recommendation
VAMC Ideal Square Footage	-	1,560,046	1,684,998
Build New GSF	-	338,596	431,153
Renovate In Place GSF	-	815,453	820,641
Matched Convert To GSF	-	287,488	282,300
Demolition GSF	-	-	-
Total Build New Cost	$0	($397,656,858)	($497,591,266)
Total Renovate In Place Cost	$0	$0	$0
Total Matched Convert To Cost	$0	($131,771,736)	($127,111,407)
Total Demolition Cost	$0	$0	$0
Total Lease Build-Out Cost	$0	($67,351,108)	($122,013,926)
Total New Lease Cost	$0	($393,215,780)	($712,230,682)
Total Existing Lease Cost	($115,425,314)	($115,425,265)	($32,217,891)
NRM Costs for Owned Facilities	($177,989,527)	($182,123,798)	($196,711,015)
FCA Correction Cost	($43,032,801)	N/A	N/A
Estimated Base Modernization Cost	($336,447,642)	($1,287,544,544)	($1,687,876,186)
Additional Common/Lobby Space Needed (GSF)	-	118,509	150,904
Cost of Additional Common/Lobby Space	$0	($106,525,037)	($135,644,217)
Additional Parking Cost	$0	$0	($2,750,949)

	Status Quo	Modernization	VA Recommendation
Potential Land Acquisition Cost	$0	($139,138)	($815,185)
Seismic Correction Cost	$0	$0	$0
Non-Building FCA Correction Cost	($13,332,424)	($13,332,424)	($13,332,424)
Activation Costs	$0	($167,162,244)	($198,423,719)
Estimated Additional Costs for Modernization	($13,332,424)	($287,158,843)	($350,966,495)
Cost Adjustment: In-Progress Construction	N/A	N/A	$0
Cost Adjustment: In-Progress Lease	N/A	N/A	$0
Estimated Facilities Costs (PV)	($349,780,066)	($1,574,703,387)	($2,038,842,680)

Table 173 – Operational Costs by COA

	Status Quo	Modernization	VA Recommendation
VA Direct	($5,954,278,805)	($5,954,278,805)	($5,954,278,805)
Fixed Direct	($871,119,532)	($871,119,532)	($871,119,532)
VA Specific Direct	($128,731,254)	($128,731,254)	($128,731,254)
Indirect	($2,750,320,892)	($2,750,320,892)	($2,750,320,892)
VA Specific Indirect	($506,221,214)	($506,221,214)	($506,221,214)
Research and Education	$0	$0	$0
VA Overhead	($539,556,652)	($539,556,652)	($539,556,652)
VA Care Operational Cost Total (PV)	($10,750,228,347)	($10,750,228,347)	($10,750,228,347)
CC Direct	($4,188,448,425)	($4,188,448,425)	($4,188,448,425)
Delivery and Operations	($174,481,242)	($174,481,242)	($174,481,242)

	Status Quo	Modernization	VA Recommendation
Care Coordination	($178,766,266)	($178,766,266)	($178,766,266)
CC Overhead	($217,104,814)	($217,104,814)	($217,104,814)
Admin PMPM	($2,176,551,097)	($2,176,551,097)	($2,176,551,097)
Non-VA Care Operational Cost Total (PV)	($6,935,351,843)	($6,935,351,843)	($6,935,351,843)
Estimated Operational Costs (PV)	($17,685,580,191)	($17,685,580,191)	($17,685,580,191)

Appendix B – VISN 21 Southern Nevada: 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	2	2	0	Under Supplied
IP Med/Surg	72	86	90	Over Supplied
IP MH	23	28	20	Under 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	5	19%
Under Supplied	22	81%

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	96.1%	96.1%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of VA-provided OP Primary Care	96.1%	96.1%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of VA-provided OP Specialty Care	80.7%	80.7%	Maintained within 1%

COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	98.6%	98.6%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	98.9%	98.9%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	99.2%	99.2%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Mental Health	96.1%	96.1%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Primary Care	96.1%	96.1%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of VA-provided OP Specialty Care	80.7%	80.7%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	98.6%	98.6%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	98.9%	98.9%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	99.2%	99.2%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Mental Health	96.1%	96.2%	Maintained within 1%

COA	Measure	Current	Future	Result
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Primary Care	96.1%	96.2%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of VA-provided OP Specialty Care	80.7%	95.3%	Increased 1% or more
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	98.6%	98.6%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	98.9%	99.1%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	99.2%	99.2%	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?
(V21) (593) North Las Vegas	2012	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 179 – Quality Key Data Points for Scoring – Inpatient Acute Demand

Facility	Service	Demand Guideline	Meets or Exceeds Guideline?	VA Recommendation
(V21) (593) North Las Vegas	IP Med	20 ADC	Yes	Maintain
(V21) (593) North Las Vegas	IP Surg	1,600 Cases	Yes	Maintain
(V21) (593) North Las Vegas	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 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?
(V21) (593) North Las Vegas	2012	N/A	No

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?
(V21) Nellis Air Force Base 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
(V21) (593) North Las Vegas	No impact on training	Maintains or Has Plan to Transition	No PRC Designation	Increases Research Opportunities, Increases Training Opportunities