



VA Recommendations to the

ASSET AND INFRASTRUCTURE REVIEW COMMISSION

March 2022

Appendix H
Cost Benefit Analysis – VISN 17



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VISN 17 North Texas

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 17 North Texas Market due to its leading Cost Benefit Index (CBI) score. The CBI score for the VA Recommendation COA (3.66) is 27.0% lower than the Status Quo COA (5.02) and 7.5% lower than the Modernization COA (3.96).

The VA Recommendation COA is \$3.8 B (9.5%) more expensive than the Status Quo COA and \$384.4 M (0.9%) more expensive than the Modernization COA. While the VA Recommendation COA increases cost compared to the Status Quo and Modernization COAs, it also increases benefits as seen by a 12-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 1 – CBI Scores by COA

	Status Quo	Modernization	VA Recommendation
COA PV (\$)	(\$40,135,268,617)	(\$43,560,756,708)	(\$43,945,190,665)
Benefit Analysis Score	8	11	12
CBI (Normalized in \$Billions)	5.02	3.96	3.66
CBI % Change vs. Status Quo	N/A	-21.1%	-27.0%
CBI % Change vs. Modernization	N/A	N/A	-7.5%

Table 2 – Cost Analysis Cost Variance by COA

Cost Variance	Status Quo	Modernization	VA Recommendation
Capital Cost Variance vs. Status Quo	N/A	(\$3,425,488,092)	(\$3,809,922,049)
Operational Cost Variance vs. Status Quo	N/A	\$0	\$0
Estimated Total Cost Variance vs. Status Quo	N/A	(\$3,425,488,092)	(\$3,809,922,049)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	(\$384,433,957)

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	1
Quality	2	3	3
Facilities and Sustainability	1	2	2
Mission	2	2	3
Total Benefit Score	8	11	12

VA Recommendation

The VA Recommendation for the VISN 17 North Texas Market COA is detailed below.

- Modernize and realign the Bonham VAMC by:
 - Relocating outpatient services, CLC, and RRTP from the Bonham VAMC to current or future VA facilities and discontinuing those services at the existing Bonham VAMC
 - Closing the Bonham VAMC
- Modernize and realign the Dallas VAMC by modernizing the outpatient mental health space
- Modernize and realign by establishing a new CLC in the vicinity of Garland, Texas
- Modernize and realign by establishing a new RRTP in the vicinity of Garland, Texas
- Modernize and realign by establishing a new CLC in the vicinity of Tarrant County, Texas
- Modernize and realign outpatient facilities in the market by:
 - Establishing a new CBOC in the vicinity of Bonham, Texas
 - Establishing a new CBOC in the vicinity of Weatherford, Texas

Cost Analysis

The Cost Analysis highlighted the estimated Present Value (PV) of each COA for the VISN 17 North Texas Market across a 30-year horizon. The cost of the VA Recommendation COA (\$43.9 B) was higher than the Status Quo COA (\$40.1 B) and the Modernization COA (\$43.6 B).

For the VISN 17 North Texas Market, the VA Recommendation COA is \$3.8 B (9.5%) more expensive than the Status Quo COA and \$384.4 M (0.9%) more expensive than the Modernization COA. The cost difference between the VA Recommendation COA and Status Quo COA can be attributed to new facilities, closing or modernizing existing facilities, and scaling capacity of existing facilities up or down to meet future Veteran in-house demand to accommodate changes in demand.



The table below outlines the costs associated with each of the COAs. For more detail refer to Appendix A – VISN 17 North Texas: Capital and Operational Costs Detail.

Table 4 – Total Cost Summary by COA

	Status Quo	Modernization	VA Recommendation
Total Costs (PV)	(\$40,135,268,617)	(\$43,560,756,708)	(\$43,945,190,665)
Capital Cost Variance vs. Status Quo	N/A	(\$3,425,488,092)	(\$3,809,922,049)
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	(\$3,425,488,092)	(\$3,809,922,049)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	(\$384,433,957)

Benefit Analysis

This section describes the non-financial benefit analysis results for the VISN 17 North Texas 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	1
Quality	2	3	3
Facilities and Sustainability	1	2	2
Mission	2	2	3



Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Total Benefit Score	8	11	12

The scoring and rationale within each domain are described in the following sections. The data underlying the analysis is provided in Appendix B – VISN 17 North Texas: 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 17 North Texas for this domain.

Table 6 – Demand and Supply Scoring Summary

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

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

Modernization: The COA received a score of 2 because, while Modernization right-sizes services to meet future Veteran in-house demand, the COA does not include changes to facilities or services that improve VA’s ability to meet 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 Tarrant County CLC to provide inpatient community living center services; 139,256 enrollees live within 60 minutes of the proposed facility
- Establishes a new Parker County CBOC to provide primary care and outpatient mental health services; there are 5,169 enrollees for which the proposed facility is the closest VA point of care within 30 minutes
- Establishes a new Waxahachie CBOC to provide primary care and outpatient mental health services; there are 5,517 enrollees for which the proposed facility is the closest VA point of care within 30 minutes
- Expands the Denton CBOC to a MS CBOC, adding outpatient specialty care services
- Expands the Polk Street OOS to a CBOC, adding primary care services
- Expands the Grand Prairie 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 17 North Texas for this domain.

Table 7 – 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 increased 1% or more, specialty care decreased 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 17 North Texas for this domain.

Table 8 – 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 17 North Texas 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 17 North Texas 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 17 North Texas Market, three scenarios changed the outcome of the CBA:

- Increasing the Modernization benefits score by one point
- 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 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	5.02	3.96	3.66	VA Recommendation
+1	4.46	3.63	3.66	Modernization
+2	4.01	3.35	3.66	Modernization
+3	3.65	3.11	3.66	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%	5.02	3.96	3.66	VA Recommendation
50%	5.07	4.16	3.86	VA Recommendation
100%	5.13	4.35	4.06	VA Recommendation
150%	5.19	4.55	4.25	VA Recommendation
200%	5.24	4.75	4.45	VA Recommendation
250%	5.30	4.94	4.64	VA Recommendation
300%	5.36	5.14	4.84	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%	5.02	3.96	3.66	VA Recommendation
50%	6.70	5.18	4.78	VA Recommendation
100%	8.38	6.41	5.90	VA Recommendation
150%	10.06	7.63	7.02	VA Recommendation
200%	11.74	8.85	8.14	VA Recommendation
250%	13.42	10.07	9.27	VA Recommendation
300%	15.10	11.30	10.39	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%	5.02	3.96	3.66	VA Recommendation
50%	5.79	4.52	4.18	VA Recommendation
100%	6.56	5.08	4.69	VA Recommendation
150%	7.33	5.64	5.20	VA Recommendation
200%	8.10	6.20	5.72	VA Recommendation
250%	8.87	6.76	6.23	VA Recommendation



Non-VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
300%	9.64	7.32	6.75	VA Recommendation



Appendix A – VISN 17 North Texas: Capital and Operational Costs Detail

Table 16 – Capital Costs by COA

	Status Quo	Modernization	VA Recommendation
VAMC Ideal Square Footage	-	3,908,590	4,108,328
Build New GSF	-	1,935,298	2,206,333
Renovate In Place GSF	-	715,874	680,425
Matched Convert To GSF	-	580,064	449,353
Demolition GSF	-	1,550,220	1,716,380
Total Build New Cost	\$0	(\$1,674,402,463)	(\$1,890,602,957)
Total Renovate In Place Cost	\$0	(\$241,040,131)	(\$228,754,914)
Total Matched Convert To Cost	\$0	(\$207,977,550)	(\$162,709,189)
Total Demolition Cost	\$0	(\$51,587,439)	(\$51,484,181)
Total Lease Build-Out Cost	\$0	(\$82,429,628)	(\$95,655,407)
Total New Lease Cost	\$0	(\$370,198,713)	(\$429,488,797)
Total Existing Lease Cost	(\$138,881,748)	(\$138,881,704)	(\$138,881,748)
NRM Costs for Owned Facilities	(\$620,756,831)	(\$456,299,039)	(\$479,616,888)
FCA Correction Cost	(\$135,892,219)	N/A	N/A
Estimated Base Modernization Cost	(\$895,530,799)	(\$3,222,816,667)	(\$3,477,194,082)
Additional Common/Lobby Space Needed (GSF)	-	677,354	772,217
Cost of Additional Common/Lobby Space	\$0	(\$495,762,484)	(\$568,525,678)
Additional Parking Cost	\$0	(\$45,205,875)	(\$63,317,406)



Potential Land Acquisition Cost	\$0	(\$7,465,308)	(\$17,168,478)
Seismic Correction Cost	(\$466,368)	\$0	\$0
Non-Building FCA Correction Cost	(\$10,348,980)	(\$10,348,979)	(\$3,511,704)
Activation Costs	\$0	(\$550,234,925)	(\$586,550,847)
Estimated Additional Costs for Modernization	(\$10,815,348)	(\$1,109,017,571)	(\$1,239,074,113)
Cost Adjustment: In-Progress Construction	N/A	N/A	\$0
Cost Adjustment: In-Progress Lease	N/A	N/A	\$0
Estimated Facilities Costs (PV)	(\$906,346,147)	(\$4,331,834,238)	(\$4,716,268,195)

Table 17 – Operational Costs by COA

	Status Quo	Modernization	VA Recommendation
VA Direct	(\$15,037,806,452)	(\$15,037,806,452)	(\$15,037,806,452)
Fixed Direct	(\$1,883,106,891)	(\$1,883,106,891)	(\$1,883,106,891)
VA Specific Direct	(\$449,054,869)	(\$449,054,869)	(\$449,054,869)
Indirect	(\$7,367,671,471)	(\$7,367,671,471)	(\$7,367,671,471)
VA Specific Indirect	(\$871,747,282)	(\$871,747,282)	(\$871,747,282)
Research and Education	(\$4,715,315)	(\$4,715,315)	(\$4,715,315)
VA Overhead	(\$1,282,759,599)	(\$1,282,759,599)	(\$1,282,759,599)
VA Care Operational Cost Total (PV)	(\$26,896,861,879)	(\$26,896,861,879)	(\$26,896,861,879)
CC Direct	(\$7,368,066,415)	(\$7,368,066,415)	(\$7,368,066,415)
Delivery and Operations	(\$324,886,529)	(\$324,886,529)	(\$324,886,529)
Care Coordination	(\$318,925,232)	(\$318,925,232)	(\$318,925,232)



CC Overhead	(\$411,159,194)	(\$411,159,194)	(\$411,159,194)
Admin PMPM	(\$3,909,023,220)	(\$3,909,023,220)	(\$3,909,023,220)
Non-VA Care Operational Cost Total (PV)	(\$12,332,060,591)	(\$12,332,060,591)	(\$12,332,060,591)
Estimated Operational Costs (PV)	(\$39,228,922,470)	(\$39,228,922,470)	(\$39,228,922,470)

Appendix B – VISN 17 North Texas: 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	274	329	232	Under Supplied
IP Med/Surg	177	213	202	Adequately Supplied
IP MH	33	40	35	Adequately 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	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 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	84.6%	84.6%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of VA-provided OP Primary Care	87.9%	87.9%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of VA-provided OP Specialty Care	98.1%	98.1%	Maintained within 1%



COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	99.5%	99.5%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.9%	99.9%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Mental Health	84.6%	84.6%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Primary Care	87.9%	87.9%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of VA-provided OP Specialty Care	98.1%	98.1%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	99.5%	99.5%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.9%	99.9%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Mental Health	84.6%	87.5%	Increased 1% or more



COA	Measure	Current	Future	Result
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Primary Care	87.9%	89.9%	Increased 1% or more
VA Recommendation	% of enrollees within 60 minutes of VA-provided OP Specialty Care	98.1%	93.7%	Decreased 1% or more
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	99.5%	99.5%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.9%	99.9%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%

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

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

Quality

Main Patient Care Facility Construction Date

Table 22 – Quality Key Data Points for Scoring – Age

Facility	Main Patient Care Facility Construction Date	Built Pre-1970?
(V17) (549) Dallas-Texas	1955	Yes
(V17) (549A4) Bonham	1948	Yes

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



Inpatient Acute Demand

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

Facility	Service	Demand Guideline	Meets or Exceeds Guideline?	VA Recommendation
(V17) (549) Dallas	IP Med	20 ADC	Yes	Maintain
(V17) (549) Dallas	IP Surg	1,600 Cases	Yes	Maintain
(V17) (549) Dallas	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?
(V17) (549) Dallas-Texas	1955	1997	Yes
(V17) (549A4) Bonham	1948	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
(V17) (549) Dallas	No impact on training	Maintains or Has Plan to Transition	Maintains PRC-designation	Increases Research Opportunities, Increases Training Opportunities



VISN 17 Central

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

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

VA MISSION Act, Section 203(2)(F)

“In making recommendations under this subsection, the Secretary shall consider...the extent and timing of potential costs and savings, including the number of years such costs or savings will be incurred, beginning with the date of completion of the proposed recommendation.”

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

Overview of COAs and Methodology

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

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

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



Summary of Results

The VA Recommendation COA is the leading COA analyzed in the VISN 17 Central Market due to its leading Cost Benefit Index (CBI) score. The CBI score for the VA Recommendation COA (2.09) is 42.2% lower than the Status Quo COA (3.62) and 26.7% lower than the Modernization COA (2.86).

The VA Recommendation COA is \$2.5 B (8.5%) more expensive than the Status Quo COA and \$8.9 M (0.03%) less expensive than the Modernization COA. While the VA Recommendation COA increases cost compared to the Status Quo COA and decreases costs compared to the Modernization COA, it also increases benefits as seen by a 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 27 – CBI Scores by COA

	Status Quo	Modernization	VA Recommendation
COA PV (\$)	(\$28,963,507,330)	(\$31,423,864,414)	(\$31,414,941,627)
Benefit Analysis Score	8	11	15
CBI (Normalized in \$Billions)	3.62	2.86	2.09
CBI % Change vs. Status Quo	N/A	-21.1%	-42.2%
CBI % Change vs. Modernization	N/A	N/A	-26.7%

Table 28 – Cost Analysis Cost Variance by COA

Cost Variance	Status Quo	Modernization	VA Recommendation
Capital Cost Variance vs. Status Quo	N/A	(\$2,460,357,085)	(\$2,451,434,297)
Operational Cost Variance vs. Status Quo	N/A	\$0	\$0
Estimated Total Cost Variance vs. Status Quo	N/A	(\$2,460,357,085)	(\$2,451,434,297)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	\$8,922,787

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

**Table 29 – Benefit Analysis Scores by COA**

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3
Access	2	2	3
Quality	2	3	3
Facilities and Sustainability	1	2	3
Mission	2	2	3
Total Benefit Score	8	11	15

VA Recommendation

The VA Recommendation for the VISN 17 Central Market COA is detailed below.

- Modernize and realign the Temple VAMC
- Modernize outpatient facilities in the market by:
 - Establishing a new MS CBOC in the vicinity of San Marcos, Texas
 - Establishing a new CBOC in the vicinity of Pflugerville, Texas
 - Establishing a new MS CBOC in the vicinity of Killeen, Texas

Cost Analysis

The Cost Analysis highlighted the estimated Present Value (PV) of each COA for the VISN 17 Central Market across a 30-year horizon. The cost of the VA Recommendation COA (\$31.41 B) was higher than the Status Quo COA (\$29.0 B) and lower than the Modernization COA (\$31.42 B).

For the VISN 17 Central Market, the VA Recommendation COA is \$2.5 B (8.5%) more expensive than the Status Quo COA and \$8.9 M (0.03%) 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 17 Central: Capital and Operational Costs Detail.

Table 30 – Total Cost Summary by COA

	Status Quo	Modernization	VA Recommendation
Total Costs (PV)	(\$28,963,507,330)	(\$31,423,864,414)	(\$31,414,941,627)
Capital Cost Variance vs. Status Quo	N/A	(\$2,460,357,085)	(\$2,451,434,297)



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	(\$2,460,357,085)	(\$2,451,434,297)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	\$8,922,787

Benefit Analysis

This section describes the non-financial benefit analysis results for the VISN 17 Central Market across five domains: Demand and Supply, Access, Quality, Facilities and Sustainability, and Mission. The results indicate that the VA Recommendation COA provides the most benefit (greatest Total Benefit Score) in comparison to the Status Quo and Modernization COAs.

Table 31 – Benefit Analysis Scores by COA

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	3
Access	2	2	3
Quality	2	3	3
Facilities and Sustainability	1	2	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 17 Central: Benefits Analysis Key Data. Additional information regarding the scoring methodology is provided in the CBA Methodology.

Demand and Supply

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



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

The table below shows the scores for VISN 17 Central for this domain.

Table 32 – Demand and Supply Scoring Summary

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

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

Modernization: The COA received a score of 2 because, while Modernization right-sizes services to meet future Veteran in-house demand, the COA does not include changes to facilities or services that improve VA's ability to meet 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 Killeen MS CBOC to provide primary care, specialty care, and outpatient mental health services; there are 37,622 enrollees for which the proposed facility is the closest VA point of care within 60 minutes
- Establishes a new Pflugerville CBOC to provide primary care and outpatient mental health services; there are 12,499 enrollees for which the proposed facility is the closest VA point of care within 30 minutes
- Establishes a new San Marcos MS CBOC to provide primary care, specialty care, and outpatient mental health services; there are 5,333 enrollees for which the proposed facility is the closest VA point of care within 60 minutes
- Expands the Bryan-College Station CBOC to a MS CBOC, adding outpatient specialty care services
- Expands the Cedar Park CBOC to a MS CBOC, adding outpatient specialty care services
- Establishes the new Austin 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 17 Central for this domain.

Table 33 – Access Scoring Summary

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

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

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

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

VA Recommendation: The COA received a score of 3 because access to VA-provided primary care increased 1% or more, specialty care 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 17 Central for this domain.

Table 34 – Quality Scoring Summary

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

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

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



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

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

Facilities and Sustainability

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

The table below shows the scores for VISN 17 Central for this domain.

Table 35 – 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 Austin 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 17 Central 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 17 Central 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 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	3.62	2.86	2.09	VA Recommendation



Status Quo and Modernization Benefit Score Change	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
+1	3.22	2.62	2.09	VA Recommendation
+2	2.90	2.42	2.09	VA Recommendation
+3	2.63	2.24	2.09	VA Recommendation

Table 39 – Sensitivity Analyses – VA Capital Cost Increase

VA Capital Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	3.62	2.86	2.09	VA Recommendation
50%	3.70	3.03	2.22	VA Recommendation
100%	3.78	3.19	2.34	VA Recommendation
150%	3.86	3.36	2.47	VA Recommendation
200%	3.94	3.53	2.59	VA Recommendation
250%	4.01	3.70	2.71	VA Recommendation
300%	4.09	3.87	2.84	VA Recommendation

Table 40 – Sensitivity Analyses – VA Operational Cost Increase

VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	3.62	2.86	2.09	VA Recommendation



VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
50%	4.78	3.70	2.71	VA Recommendation
100%	5.94	4.54	3.33	VA Recommendation
150%	7.10	5.39	3.95	VA Recommendation
200%	8.26	6.23	4.57	VA Recommendation
250%	9.42	7.07	5.19	VA Recommendation
300%	10.58	7.92	5.80	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%	3.62	2.86	2.09	VA Recommendation
50%	4.19	3.27	2.40	VA Recommendation
100%	4.76	3.69	2.70	VA Recommendation
150%	5.34	4.10	3.01	VA Recommendation
200%	5.91	4.52	3.31	VA Recommendation
250%	6.48	4.94	3.62	VA Recommendation
300%	7.05	5.35	3.93	VA Recommendation

**Appendix A – VISN 17 Central: Capital and Operational Costs Detail****Table 42 – Capital Costs by COA**

	Status Quo	Modernization	VA Recommendation
VAMC Ideal Square Footage	-	2,951,149	2,746,891
Build New GSF	-	1,534,182	1,382,880
Renovate In Place GSF	-	471,291	487,418
Matched Convert To GSF	-	408,712	392,585
Demolition GSF	-	1,194,740	1,194,740
Total Build New Cost	\$0	(\$1,232,452,943)	(\$1,118,351,117)
Total Renovate In Place Cost	\$0	(\$97,832,057)	(\$100,366,475)
Total Matched Convert To Cost	\$0	(\$136,217,672)	(\$130,474,682)
Total Demolition Cost	\$0	(\$37,421,688)	(\$37,421,688)
Total Lease Build-Out Cost	\$0	(\$94,455,107)	(\$125,315,111)
Total New Lease Cost	\$0	(\$659,520,970)	(\$821,641,528)
Total Existing Lease Cost	(\$285,884,318)	(\$285,884,257)	(\$285,884,318)
NRM Costs for Owned Facilities	(\$785,030,357)	(\$344,524,806)	(\$320,679,229)
FCA Correction Cost	(\$164,137,416)	N/A	N/A
Estimated Base Modernization Cost	(\$1,235,052,090)	(\$2,888,309,501)	(\$2,940,134,148)
Additional Common/Lobby Space Needed (GSF)	-	536,964	484,008
Cost of Additional Common/Lobby Space	\$0	(\$366,937,775)	(\$330,805,308)
Additional Parking Cost	\$0	(\$45,138,565)	(\$37,857,018)



Potential Land Acquisition Cost	\$0	(\$8,386,643)	(\$6,939,540)
Seismic Correction Cost	(\$81,443)	\$0	\$0
Non-Building FCA Correction Cost	(\$24,398,651)	(\$24,398,651)	(\$24,398,651)
Activation Costs	\$0	(\$386,718,134)	(\$370,831,816)
Estimated Additional Costs for Modernization	(\$24,480,094)	(\$831,579,768)	(\$770,832,334)
Cost Adjustment: In-Progress Construction	N/A	N/A	\$0
Cost Adjustment: In-Progress Lease	N/A	N/A	\$0
Estimated Facilities Costs (PV)	(\$1,259,532,184)	(\$3,719,889,269)	(\$3,710,966,482)

Table 43 – Operational Costs by COA

	Status Quo	Modernization	VA Recommendation
VA Direct	(\$10,317,969,847)	(\$10,317,969,847)	(\$10,317,969,847)
Fixed Direct	(\$1,256,763,206)	(\$1,256,763,206)	(\$1,256,763,206)
VA Specific Direct	(\$382,892,593)	(\$382,892,593)	(\$382,892,593)
Indirect	(\$4,963,241,571)	(\$4,963,241,571)	(\$4,963,241,571)
VA Specific Indirect	(\$706,274,986)	(\$706,274,986)	(\$706,274,986)
Research and Education	(\$8,815,120)	(\$8,815,120)	(\$8,815,120)
VA Overhead	(\$914,178,990)	(\$914,178,990)	(\$914,178,990)
VA Care Operational Cost Total (PV)	(\$18,550,136,314)	(\$18,550,136,314)	(\$18,550,136,314)
CC Direct	(\$5,473,199,771)	(\$5,473,199,771)	(\$5,473,199,771)
Delivery and Operations	(\$246,017,602)	(\$246,017,602)	(\$246,017,602)
Care Coordination	(\$245,371,655)	(\$245,371,655)	(\$245,371,655)



CC Overhead	(\$314,379,066)	(\$314,379,066)	(\$314,379,066)
Admin PMPM	(\$2,874,870,737)	(\$2,874,870,737)	(\$2,874,870,737)
Non-VA Care Operational Cost Total (PV)	(\$9,153,838,832)	(\$9,153,838,832)	(\$9,153,838,832)
Estimated Operational Costs (PV)	(\$27,703,975,146)	(\$27,703,975,146)	(\$27,703,975,146)

Appendix B – VISN 17 Central: Benefits Analysis Key Data

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

Demand and Supply Inpatient

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

Service Line	100% of FY29 In-house Bed Need	120% of FY29 In-house Bed Need	Operating Beds	Supply Adequacy (within 100-120% of in-house demand)
IP CLC	195	234	174	Under Supplied
IP Med/Surg	86	104	86	Under Supplied
IP MH	42	51	40	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	7	26%
Under Supplied	20	74%

Note: VA supply in the Status Quo COA is quantitatively evaluated based on the data above. It is assumed the Modernization COA scales the capacity of existing facilities up or down to meet future Veteran in-house demand. Similar to the Modernization COA, it is assumed the VA Recommendation COA scales the capacity of existing and



proposed facilities up or down to meet future Veteran in-house demand. However, the VA Recommendation COA may account for factors that demand projections do not consider that may shift the future balance of in-house and community workload, such as:

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

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

Table 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	74.1%	74.1%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of VA-provided OP Primary Care	75.3%	75.3%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of VA-provided OP Specialty Care	93.5%	93.5%	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	99.7%	99.7%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Mental Health	74.1%	74.1%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Primary Care	75.3%	75.3%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of VA-provided OP Specialty Care	93.5%	93.5%	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	99.7%	99.7%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Mental Health	74.1%	87.6%	Increased 1% or more



COA	Measure	Current	Future	Result
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Primary Care	75.3%	87.8%	Increased 1% or more
VA Recommendation	% of enrollees within 60 minutes of VA-provided OP Specialty Care	93.5%	96.2%	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	99.7%	100.0%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%

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

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

Quality

Main Patient Care Facility Construction Date

Table 48 – Quality Key Data Points for Scoring – Age

Facility	Main Patient Care Facility Construction Date	Built Pre-1970?
(V17) (674) Temple-Texas	1967	Yes
(V17) (674A4) Waco	1945	Yes

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



Inpatient Acute Demand

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

Facility	Service	Demand Guideline	Meets or Exceeds Guideline?	VA Recommendation
(V17) (674) Temple	IP Med	20 ADC	Yes	Maintain
(V17) (674) Temple	IP Surg	1,600 Cases	Yes	Maintain
(V17) (674) Temple	IP MH	8 ADC	No Service	N/A
(V17) (674A4) Waco	IP Med	20 ADC	No Service	N/A
(V17) (674A4) Waco	IP Surg	1,600 Cases	No Service	N/A
(V17) (674A4) Waco	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 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?
(V17) (674) Temple-Texas	1967	1997	Yes
(V17) (674A4) Waco	1945	2001	Yes

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

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

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

Facility	Expands VA's Ability to Recruit/Retain?
(V17) Austin OP Surg Partnership	Yes

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
(V17) (674) Temple	No impact on training	Maintains or Has Plan to Transition	No PRC Designation	Increases Research Opportunities, Increases Training Opportunities
(V17) (674A4) Waco	No impact on training	No Research Program	No PRC Designation	Increases Research Opportunities, Increases Training Opportunities



VISN 17 Southern

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 17 Southern Market due to its leading Cost Benefit Index (CBI) score. The CBI score for the VA Recommendation COA (3.06) is 24.9% lower than the Status Quo COA (4.07) and 5.3% lower than the Modernization COA (3.23).

The VA Recommendation COA is \$4.1 B (12.7%) more expensive than the Status Quo COA and \$1.2 B (3.3%) 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 12-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 (\$)	(\$32,590,545,457)	(\$35,560,655,271)	(\$36,731,589,300)
Benefit Analysis Score	8	11	12
CBI (Normalized in \$Billions)	4.07	3.23	3.06
CBI % Change vs. Status Quo	N/A	-20.6%	-24.9%
CBI % Change vs. Modernization	N/A	N/A	-5.3%

Table 54 – Cost Analysis Cost Variance by COA

Cost Variance	Status Quo	Modernization	VA Recommendation
Capital Cost Variance vs. Status Quo	N/A	(\$2,970,109,814)	(\$4,141,043,843)
Operational Cost Variance vs. Status Quo	N/A	\$0	\$0
Estimated Total Cost Variance vs. Status Quo	N/A	(\$2,970,109,814)	(\$4,141,043,843)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	(\$1,170,934,029)

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	2
Access	2	2	3
Quality	2	3	3
Facilities and Sustainability	1	2	2
Mission	2	2	2
Total Benefit Score	8	11	12

VA Recommendation

The VA Recommendation for the VISN 17 Southern Market COA is detailed below.

- Modernize and realign the San Antonio VAMC by:
 - Constructing a new VAMC in the vicinity of San Antonio, Texas
 - Closing the existing San Antonio VAMC
- Modernize and realign outpatient facilities in the market by establishing a new MS CBOC in the vicinity of San Marcos, Texas

Cost Analysis

The Cost Analysis highlighted the estimated Present Value (PV) of each COA for the VISN 17 Southern Market across a 30-year horizon. The cost of the VA Recommendation COA (\$36.7 B) was higher than the Status Quo COA (\$32.6 B) and the Modernization COA (\$35.6 B).

For the VISN 17 Southern Market, the VA Recommendation COA is \$4.1 B (12.7%) more expensive than the Status Quo COA and \$1.2 B (3.3%) 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 17 Southern: Capital and Operational Costs Detail.

Table 56 – Total Cost Summary by COA

	Status Quo	Modernization	VA Recommendation
Total Costs (PV)	(\$32,590,545,457)	(\$35,560,655,271)	(\$36,731,589,300)
Capital Cost Variance vs. Status Quo	N/A	(\$2,970,109,814)	(\$4,141,043,843)



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	\$0	(\$2,970,109,814)	(\$4,141,043,843)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	(\$1,170,934,029)

Benefit Analysis

This section describes the non-financial benefit analysis results for the VISN 17 Southern 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	2
Access	2	2	3
Quality	2	3	3
Facilities and Sustainability	1	2	2
Mission	2	2	2
Total Benefit Score	8	11	12

The scoring and rationale within each domain are described in the following sections. The data underlying the analysis is provided in Appendix B – VISN 17 Southern: 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 17 Southern for this domain.

Table 58 – Demand and Supply Scoring Summary

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

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

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

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

Access

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

The table below shows the CBA access scores for VISN 17 Southern 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 was maintained within 1%, 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 17 Southern 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 17 Southern for this domain.

Table 61 – 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 17 Southern for this domain.

Table 62 – Mission Scoring Summary

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

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

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

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

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

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

- **Education:** The COA received a score of 2 because inpatient acute services remain VA-delivered and thus the COA maintains existing training programs.
- **Research:** The COA received a score of 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.

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 17 Southern Market, five scenarios changed the outcome of the CBA:

- Increasing the Modernization benefits score by one point
- Increasing the Modernization benefits score by two points
- Increasing the Modernization benefits score by three points
- Increasing the VA Capital Cost by 250%; Modernization becomes the preferred COA
- Increasing the VA Capital Cost by 300%; Modernization becomes the preferred COA

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	4.07	3.23	3.06	VA Recommendation
+1	3.62	2.96	3.06	Modernization
+2	3.26	2.74	3.06	Modernization
+3	2.96	2.54	3.06	Modernization



Table 65 – Sensitivity Analyses – VA Capital Cost Increase

VA Capital Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	4.07	3.23	3.06	VA Recommendation
50%	4.11	3.40	3.26	VA Recommendation
100%	4.16	3.56	3.46	VA Recommendation
150%	4.20	3.73	3.66	VA Recommendation
200%	4.24	3.89	3.86	VA Recommendation
250%	4.28	4.06	4.06	Modernization
300%	4.32	4.22	4.26	Modernization

Table 66 – Sensitivity Analyses – VA Operational Cost Increase

VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	4.07	3.23	3.06	VA Recommendation
50%	5.56	4.31	4.05	VA Recommendation
100%	7.04	5.39	5.04	VA Recommendation
150%	8.52	6.47	6.03	VA Recommendation
200%	10.01	7.55	7.02	VA Recommendation
250%	11.49	8.63	8.00	VA Recommendation
300%	12.97	9.70	8.99	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%	4.07	3.23	3.06	VA Recommendation
50%	4.59	3.61	3.40	VA Recommendation
100%	5.10	3.98	3.75	VA Recommendation
150%	5.61	4.35	4.09	VA Recommendation
200%	6.13	4.73	4.43	VA Recommendation
250%	6.64	5.10	4.77	VA Recommendation
300%	7.15	5.47	5.11	VA Recommendation

**Appendix A – VISN 17 Southern: Capital and Operational Costs Detail****Table 68 – Capital Costs by COA**

	Status Quo	Modernization	VA Recommendation
VAMC Ideal Square Footage	-	2,932,510	3,602,317
Build New GSF	-	2,011,482	2,608,031
Renovate In Place GSF	-	84,689	35,975
Matched Convert To GSF	-	132,320	45,500
Demolition GSF	-	1,346,973	1,505,597
Total Build New Cost	\$0	(\$1,707,927,905)	(\$2,111,551,042)
Total Renovate In Place Cost	\$0	(\$16,642,319)	(\$11,055,302)
Total Matched Convert To Cost	\$0	(\$47,885,021)	(\$16,360,690)
Total Demolition Cost	\$0	(\$44,462,347)	(\$32,622,274)
Total Lease Build-Out Cost	\$0	(\$60,986,812)	(\$60,986,815)
Total New Lease Cost	\$0	(\$177,993,911)	(\$177,994,001)
Total Existing Lease Cost	(\$83,757,635)	(\$83,757,547)	(\$83,757,635)
NRM Costs for Owned Facilities	(\$458,629,546)	(\$342,348,841)	(\$420,543,877)
FCA Correction Cost	(\$77,193,109)	N/A	N/A
Estimated Base Modernization Cost	(\$619,580,291)	(\$2,482,004,703)	(\$2,914,871,636)
Additional Common/Lobby Space Needed (GSF)	-	704,019	912,811
Cost of Additional Common/Lobby Space	\$0	(\$512,289,729)	(\$664,220,458)
Additional Parking Cost	\$0	(\$64,962,011)	(\$669,396,047)



Potential Land Acquisition Cost	\$0	(\$16,277,244)	(\$14,320)
Seismic Correction Cost	\$0	\$0	\$0
Non-Building FCA Correction Cost	(\$35,434,819)	(\$35,434,819)	(\$34,376,405)
Activation Costs	\$0	(\$514,156,418)	(\$513,180,087)
Estimated Additional Costs for Modernization	(\$35,434,819)	(\$1,143,120,221)	(\$1,881,187,317)
Cost Adjustment: In-Progress Construction	N/A	N/A	\$0
Cost Adjustment: In-Progress Lease	N/A	N/A	\$0
Estimated Facilities Costs (PV)	(\$655,015,110)	(\$3,625,124,924)	(\$4,796,058,953)

Table 69 – Operational Costs by COA

	Status Quo	Modernization	VA Recommendation
VA Direct	(\$13,811,656,059)	(\$13,811,656,059)	(\$13,811,656,059)
Fixed Direct	(\$1,856,553,317)	(\$1,856,553,317)	(\$1,856,553,317)
VA Specific Direct	(\$688,167,905)	(\$688,167,905)	(\$688,167,905)
Indirect	(\$5,537,908,358)	(\$5,537,908,358)	(\$5,537,908,358)
VA Specific Indirect	(\$682,292,696)	(\$682,292,696)	(\$682,292,696)
Research and Education	(\$48,762,263)	(\$48,762,263)	(\$48,762,263)
VA Overhead	(\$1,101,480,126)	(\$1,101,480,126)	(\$1,101,480,126)
VA Care Operational Cost Total (PV)	(\$23,726,820,725)	(\$23,726,820,725)	(\$23,726,820,725)
CC Direct	(\$4,517,831,634)	(\$4,517,831,634)	(\$4,517,831,634)
Delivery and Operations	(\$211,877,452)	(\$211,877,452)	(\$211,877,452)
Care Coordination	(\$202,908,397)	(\$202,908,397)	(\$202,908,397)



CC Overhead	(\$264,232,785)	(\$264,232,785)	(\$264,232,785)
Admin PMPM	(\$3,011,859,354)	(\$3,011,859,354)	(\$3,011,859,354)
Non-VA Care Operational Cost Total (PV)	(\$8,208,709,622)	(\$8,208,709,622)	(\$8,208,709,622)
Estimated Operational Costs (PV)	(\$31,935,530,347)	(\$31,935,530,347)	(\$31,935,530,347)

Appendix B – VISN 17 Southern: 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	180	216	198	Adequately Supplied
IP Med/Surg	123	147	164	Over Supplied
IP MH	35	42	33	Under Supplied

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

Source: Enrollee Healthcare Projection Model Base Year 2019

Outpatient

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

Physician Supply Adequacy	Count of Specialties	Percentage
Adequately Supplied	6	22%
Under Supplied	21	78%

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	87.8%	87.8%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of VA-provided OP Primary Care	92.1%	92.1%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of VA-provided OP Specialty Care	94.1%	94.1%	Maintained within 1%



COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	97.6%	97.6%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.5%	99.5%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Mental Health	87.8%	87.8%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Primary Care	92.1%	92.1%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of VA-provided OP Specialty Care	94.1%	94.1%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	97.6%	97.6%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.5%	99.5%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Mental Health	87.8%	89.5%	Increased 1% or more



COA	Measure	Current	Future	Result
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Primary Care	92.1%	92.3%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of VA-provided OP Specialty Care	94.1%	94.7%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	97.6%	97.6%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	99.5%	99.8%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%

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

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

Quality

Main Patient Care Facility Construction Date

Table 74 – Quality Key Data Points for Scoring – Age

Facility	Main Patient Care Facility Construction Date	Built Pre-1970?
(V17) (671) San Antonio-Texas	1972	No
(V17) (671A4) Kerrville	1947	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
(V17) (671) San Antonio	IP Med	20 ADC	Yes	Replace/Relocate
(V17) (671) San Antonio	IP Surg	1,600 Cases	Yes	Replace/Relocate
(V17) (671) San Antonio	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 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?
(V17) (671) San Antonio-Texas	1972	1991	No
(V17) (671A4) Kerrville	1947	1990	Yes

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

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

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

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



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
(V17) (671) San Antonio	No impact on training	Maintains or Has Plan to Transition	No PRC Designation	Does Not Increase Training/Research Opportunities



VISN 17 Valley Coastal Bend

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 17 Valley Coastal Bend Market due to its leading Cost Benefit Index (CBI) score. The CBI score for the VA Recommendation COA (0.91) is 21.5% lower than the Status Quo COA (1.16) and 15.9% lower than the Modernization COA (1.08).

The VA Recommendation COA is \$238.6 M (2.1%) more expensive than the Status Quo COA and \$71.0 M (0.6%) less expensive than the Modernization COA. While the VA Recommendation COA increases cost compared to the Status Quo COA and decreases costs compared to the Modernization COA, it also increases benefits as seen by a 13-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 79 – CBI Scores by COA

	Status Quo	Modernization	VA Recommendation
COA PV (\$)	(\$11,566,598,746)	(\$11,876,220,241)	(\$11,805,206,826)
Benefit Analysis Score	10	11	13
CBI (Normalized in \$Billions)	1.16	1.08	0.91
CBI % Change vs. Status Quo	N/A	-6.7%	-21.5%
CBI % Change vs. Modernization	N/A	N/A	-15.9%

Table 80 – Cost Analysis Cost Variance by COA

Cost Variance	Status Quo	Modernization	VA Recommendation
Capital Cost Variance vs. Status Quo	N/A	(\$309,621,495)	(\$331,476,818)
Operational Cost Variance vs. Status Quo	N/A	\$0	\$92,868,738
Estimated Total Cost Variance vs. Status Quo	N/A	(\$309,621,495)	(\$238,608,080)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	\$71,013,415

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	3
Quality	3	3	3
Facilities and Sustainability	2	2	2
Mission	2	2	2
Total Benefit Score	10	11	13

VA Recommendation

The VA Recommendation for the VISN 17 Valley Coastal Bend Market COA is detailed below.

- Modernize and realign the Harlingen HCC by relocating outpatient surgical services from the Harlingen HCC to community providers and discontinuing those services at the Harlingen HCC
- Modernize and realign outpatient facilities in the market by establishing a new CBOC in the vicinity of Brownsville, Texas

Cost Analysis

The Cost Analysis highlighted the estimated Present Value (PV) of each COA for the VISN 17 Valley Coastal Bend Market across a 30-year horizon. The cost of the VA Recommendation COA (\$11.8 B) was higher than the Status Quo COA (\$11.6 B) and lower than the Modernization COA (\$11.9 B).

For the VISN 17 Valley Coastal Bend Market, the VA Recommendation COA is \$238.6 M (2.1%) more expensive than the Status Quo COA and \$71.0 M (0.6%) 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 17 Valley Coastal Bend: Capital and Operational Costs Detail.

Table 82 – Total Cost Summary by COA

	Status Quo	Modernization	VA Recommendation
Total Costs (PV)	(\$11,566,598,746)	(\$11,876,220,241)	(\$11,805,206,826)
Capital Cost Variance vs. Status Quo	N/A	(\$309,621,495)	(\$331,476,818)



Operational Cost Variance vs. Status Quo	N/A	\$0	\$92,868,738
Non-VA Care Operational Cost Variance	N/A	\$0	(\$42,004,090)
VA Care Operational Cost Variance	N/A	\$0	\$134,872,828
Estimated Total Cost Variance vs. Status Quo	\$0	(\$309,621,495)	(\$238,608,080)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	\$71,013,415

Benefit Analysis

This section describes the non-financial benefit analysis results for the VISN 17 Valley Coastal Bend 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	3
Quality	3	3	3
Facilities and Sustainability	2	2	2
Mission	2	2	2
Total Benefit Score	10	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 17 Valley Coastal Bend: 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 17 Valley Coastal Bend 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 the future Veteran enrollee population (e.g., relocation or establishment of facilities in areas with greater Veteran demand, expansion of services).

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

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

- Establishes a new Brownsville CBOC to provide primary care and outpatient mental health services; there are 3,510 enrollees for which the proposed facility is the closest VA point of care within 30 minutes

Access

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

The table below shows the CBA access scores for VISN 17 Valley Coastal Bend for this domain.

Table 85 – 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 17 Valley Coastal Bend for this domain.

Table 86 – 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 17 Valley Coastal Bend for this domain.

Table 87 – 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 17 Valley Coastal Bend for this domain.

Table 88 – Mission Scoring Summary

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

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

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

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

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

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

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

Sensitivity Analysis

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



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

The table below outlines the sensitivity analysis scenarios completed.

Table 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 17 Valley Coastal Bend Market, one scenario changed the outcome of the CBA:

- Increasing the Modernization benefits score by three points

Sensitivity Analysis Full Results

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

Table 90 – Sensitivity Analyses – Benefit Score Increase

Status Quo and Modernization Benefit Score Change	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
+0	1.16	1.08	0.91	VA Recommendation
+1	1.05	0.99	0.91	VA Recommendation
+2	0.96	0.91	0.91	VA Recommendation
+3	0.89	0.85	0.91	Modernization



Table 91 – Sensitivity Analyses – VA Capital Cost Increase

VA Capital Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.16	1.08	0.91	VA Recommendation
50%	1.17	1.10	0.93	VA Recommendation
100%	1.18	1.13	0.95	VA Recommendation
150%	1.19	1.15	0.97	VA Recommendation
200%	1.20	1.17	0.99	VA Recommendation
250%	1.21	1.20	1.01	VA Recommendation
300%	1.22	1.22	1.03	VA Recommendation

Table 92 – Sensitivity Analyses – VA Operational Cost Increase

VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.16	1.08	0.91	VA Recommendation
50%	1.37	1.27	1.06	VA Recommendation
100%	1.58	1.46	1.22	VA Recommendation
150%	1.79	1.65	1.38	VA Recommendation
200%	2.00	1.84	1.53	VA Recommendation
250%	2.21	2.03	1.69	VA Recommendation



VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
300%	2.42	2.22	1.85	VA Recommendation

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

Non-VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.16	1.08	0.91	VA Recommendation
50%	1.51	1.41	1.19	VA Recommendation
100%	1.87	1.73	1.46	VA Recommendation
150%	2.23	2.06	1.74	VA Recommendation
200%	2.59	2.38	2.02	VA Recommendation
250%	2.95	2.71	2.29	VA Recommendation
300%	3.30	3.03	2.57	VA Recommendation



Appendix A – VISN 17 Valley Coastal Bend: Capital and Operational Costs Detail

Table 94 – Capital Costs by COA

	Status Quo	Modernization	VA Recommendation
VAMC Ideal Square Footage	-	102,257	102,257
Build New GSF	-	55,746	55,746
Renovate In Place GSF	-	18,161	18,161
Matched Convert To GSF	-	8,839	8,839
Demolition GSF	-	-	-
Total Build New Cost	\$0	(\$45,862,828)	(\$45,862,830)
Total Renovate In Place Cost	\$0	(\$6,457,097)	(\$6,457,097)
Total Matched Convert To Cost	\$0	(\$3,202,054)	(\$3,202,055)
Total Demolition Cost	\$0	\$0	\$0
Total Lease Build-Out Cost	\$0	(\$42,912,294)	(\$47,320,741)
Total New Lease Cost	\$0	(\$170,028,959)	(\$187,475,746)
Total Existing Lease Cost	(\$204,792,262)	(\$204,792,177)	(\$204,792,262)
NRM Costs for Owned Facilities	(\$6,603,561)	(\$11,937,761)	(\$11,937,761)
FCA Correction Cost	(\$2,367,366)	N/A	N/A
Estimated Base Modernization Cost	(\$213,763,189)	(\$485,193,171)	(\$507,048,492)
Additional Common/Lobby Space Needed (GSF)	-	19,511	19,511
Cost of Additional Common/Lobby Space	\$0	(\$14,197,543)	(\$14,197,544)
Additional Parking Cost	\$0	(\$2,878,751)	(\$2,878,751)



Potential Land Acquisition Cost	\$0	(\$1,693,841)	(\$1,693,842)
Seismic Correction Cost	\$0	\$0	\$0
Non-Building FCA Correction Cost	\$0	\$0	\$0
Activation Costs	\$0	(\$19,421,378)	(\$19,421,378)
Estimated Additional Costs for Modernization	\$0	(\$38,191,513)	(\$38,191,515)
Cost Adjustment: In-Progress Construction	N/A	N/A	\$0
Cost Adjustment: In-Progress Lease	N/A	N/A	\$0
Estimated Facilities Costs (PV)	(\$213,763,189)	(\$523,384,684)	(\$545,240,007)

Table 95 – Operational Costs by COA

	Status Quo	Modernization	VA Recommendation
VA Direct	(\$1,936,354,552)	(\$1,936,354,552)	(\$1,872,629,476)
Fixed Direct	(\$199,492,047)	(\$199,492,047)	(\$189,449,795)
VA Specific Direct	(\$109,312,797)	(\$109,312,797)	(\$107,112,444)
Indirect	(\$1,506,455,506)	(\$1,506,455,506)	(\$1,462,350,487)
VA Specific Indirect	(\$238,046,349)	(\$238,046,349)	(\$230,093,545)
Research and Education	\$0	\$0	\$0
VA Overhead	(\$205,275,221)	(\$205,275,221)	(\$198,427,897)
VA Care Operational Cost Total (PV)	(\$4,194,936,471)	(\$4,194,936,471)	(\$4,060,063,643)
CC Direct	(\$5,166,677,914)	(\$5,166,677,914)	(\$5,210,715,261)
Delivery and Operations	(\$220,206,423)	(\$220,206,423)	(\$222,573,144)
Care Coordination	(\$229,899,162)	(\$229,899,162)	(\$232,708,755)



CC Overhead	(\$281,749,030)	(\$281,749,030)	(\$284,916,763)
Admin PMPM	(\$1,259,366,557)	(\$1,259,366,557)	(\$1,248,989,253)
Non-VA Care Operational Cost Total (PV)	(\$7,157,899,086)	(\$7,157,899,086)	(\$7,199,903,176)
Estimated Operational Costs (PV)	(\$11,352,835,557)	(\$11,352,835,557)	(\$11,259,966,819)

Appendix B – VISN 17 Valley Coastal Bend: 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	5	6	0	Under Supplied
IP Med/Surg	3	3	0	Under Supplied
IP MH	2	3	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	2	7%
Under Supplied	25	93%

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	84.1%	84.1%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of VA-provided OP Primary Care	84.5%	84.5%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of VA-provided OP Specialty Care	87.7%	87.7%	Maintained within 1%



COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	94.3%	94.3%	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	100.0%	100.0%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Mental Health	84.1%	84.1%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Primary Care	84.5%	84.5%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of VA-provided OP Specialty Care	87.7%	87.7%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	94.3%	94.3%	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	100.0%	100.0%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Mental Health	84.1%	85.4%	Increased 1% or more



COA	Measure	Current	Future	Result
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Primary Care	84.5%	85.9%	Increased 1% or more
VA Recommendation	% of enrollees within 60 minutes of VA-provided OP Specialty Care	87.7%	87.7%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	94.3%	95.3%	Increased 1% or more
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	98.6%	99.8%	Increased 1% or more
VA Recommendation	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	100.0%	100.0%	Maintained within 1%

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

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

Quality

Main Patient Care Facility Construction Date

Table 100 – Quality Key Data Points for Scoring – Age

Facility	Main Patient Care Facility Construction Date	Built Pre-1970?
(V17) (740) Harlingen-Texas	2010	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
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.

*This market does not support VA-provided inpatient acute 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?
(V17) (740) Harlingen-Texas	2010	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 103 – Key Data Points for Scoring - Recruitment and Retention

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



Mission

Table 104 – Mission Key Data Points for Scoring

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

Facility	Training Impact	Research Impact	4th Mission Impact	Market Plan Includes New Facilities/Services To Increase Training/Research Opportunities
N/A	N/A	N/A	N/A	Increases Research Opportunities



VISN 17 West-Northwest Texas

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 17 West-Northwest Texas Market due to its leading Cost Benefit Index (CBI) score. The CBI score for the VA Recommendation COA (1.05) is 35.8% lower than the Status Quo COA (1.63) and 11.1% lower than the Modernization COA (1.18).

The VA Recommendation COA is \$104.5 M (0.9%) more expensive than the Status Quo COA and \$265.5 M (2.3%) less expensive than the Modernization COA. While the VA Recommendation COA increases cost compared to the Status Quo COA and decreases costs compared to the Modernization COA, it also increases benefits as seen by an 11-point benefits score compared to 7 for the Status Quo COA and 10 for the Modernization COA.

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

Table 105 – CBI Scores by COA

	Status Quo	Modernization	VA Recommendation
COA PV (\$)	(\$11,421,094,148)	(\$11,791,078,346)	(\$11,525,552,388)
Benefit Analysis Score	7	10	11
CBI (Normalized in \$Billions)	1.63	1.18	1.05
CBI % Change vs. Status Quo	N/A	-27.7%	-35.8%
CBI % Change vs. Modernization	N/A	N/A	-11.1%

Table 106 – Cost Analysis Cost Variance by COA

Cost Variance	Status Quo	Modernization	VA Recommendation
Capital Cost Variance vs. Status Quo	N/A	(\$369,984,198)	(\$455,407,379)
Operational Cost Variance vs. Status Quo	N/A	\$0	\$350,949,139
Estimated Total Cost Variance vs. Status Quo	N/A	(\$369,984,198)	(\$104,458,240)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	\$265,525,958

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	2
Access	2	2	2
Quality	1	2	3
Facilities and Sustainability	1	2	2
Mission	2	2	2
Total Benefit Score	7	10	11

VA Recommendation

The VA Recommendation for the VISN 17 West-Northwest Texas Market COA is detailed below.

- Modernize and realign the Amarillo VA Medical Center (VAMC) by:
 - Relocating inpatient and emergency services from the Amarillo VAMC to community providers and discontinuing those services at the Amarillo VAMC
 - Modernizing the RRTP at the Amarillo VAMC
- Modernize and realign outpatient facilities in the market by relocating the Lubbock MS CBOC to a new site in the vicinity of Lubbock, Texas, and closing the existing Lubbock MS CBOC
- Modernize and realign the Big Spring VAMC by relocating outpatient surgical services from the Big Spring VAMC to community providers and discontinuing those services at the Big Spring VAMC

Cost Analysis

The Cost Analysis highlighted the estimated Present Value (PV) of each COA for the VISN 17 West-Northwest Texas Market across a 30-year horizon. The cost of the VA Recommendation COA (\$11.5 B) was higher than the Status Quo COA (\$11.4 B) and lower than the Modernization COA (\$11.8 B).

For the VISN 17 West-Northwest Texas Market, the VA Recommendation COA is \$104.5 M (0.9%) more expensive than the Status Quo COA and \$265.5 M (2.3%) 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 17 West-Northwest Texas: Capital and Operational Costs Detail.

Table 108 – Total Cost Summary by COA

	Status Quo	Modernization	VA Recommendation
Total Costs (PV)	(\$11,421,094,148)	(\$11,791,078,346)	(\$11,525,552,388)
Capital Cost Variance vs. Status Quo	N/A	(\$369,984,198)	(\$455,407,379)
Operational Cost Variance vs. Status Quo	N/A	\$0	\$350,949,139
Non-VA Care Operational Cost Variance	N/A	\$0	(\$291,421,107)
VA Care Operational Cost Variance	N/A	\$0	\$642,370,246
Estimated Total Cost Variance vs. Status Quo	N/A	(\$369,984,198)	(\$104,458,240)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	\$265,525,958

Benefit Analysis

This section describes the non-financial benefit analysis results for the VISN 17 West-Northwest Texas 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	2
Access	2	2	2
Quality	1	2	3
Facilities and Sustainability	1	2	2



Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Mission	2	2	2
Total Benefit Score	7	10	11

The scoring and rationale within each domain are described in the following sections. The data underlying the analysis is provided in Appendix B – VISN 17 West-Northwest Texas: 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 17 West-Northwest Texas for this domain.

Table 110 – Demand and Supply Scoring Summary

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

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

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

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

Access

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



The table below shows the CBA access scores for VISN 17 West-Northwest Texas for this domain.

Table 111 – Access Scoring Summary

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 17 West-Northwest Texas for this domain.

Table 112 – Quality Scoring Summary

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

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

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



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

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

- Transition Amarillo's low census inpatient medicine program to community providers

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 17 West-Northwest Texas for this domain.

Table 113 – 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 17 West-Northwest Texas for this domain.

Table 114 – Mission Scoring Summary

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

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

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

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

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

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



- **Education:** The COA received a score of 1 because it impacts inpatient acute service lines and thus introduces risk to existing training programs.
- **Research:** The COA received a score of 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.

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 17 West-Northwest Texas 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 116 – Sensitivity Analyses – Benefit Score Increase

Status Quo and Modernization Benefit Score Change	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
+0	1.63	1.18	1.05	VA Recommendation



Status Quo and Modernization Benefit Score Change	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
+1	1.43	1.07	1.05	VA Recommendation
+2	1.27	0.98	1.05	Modernization
+3	1.14	0.91	1.05	Modernization

Table 117 – Sensitivity Analyses – VA Capital Cost Increase

VA Capital Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.63	1.18	1.05	VA Recommendation
50%	1.67	1.22	1.09	VA Recommendation
100%	1.70	1.26	1.13	VA Recommendation
150%	1.74	1.31	1.18	VA Recommendation
200%	1.77	1.35	1.22	VA Recommendation
250%	1.81	1.39	1.26	VA Recommendation
300%	1.84	1.44	1.31	VA Recommendation

Table 118 – Sensitivity Analyses – VA Operational Cost Increase

VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.63	1.18	1.05	VA Recommendation



VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
50%	2.03	1.46	1.27	VA Recommendation
100%	2.43	1.74	1.50	VA Recommendation
150%	2.83	2.02	1.72	VA Recommendation
200%	3.23	2.30	1.95	VA Recommendation
250%	3.63	2.58	2.18	VA Recommendation
300%	4.04	2.86	2.40	VA Recommendation

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

Non-VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	1.63	1.18	1.05	VA Recommendation
50%	2.01	1.45	1.30	VA Recommendation
100%	2.39	1.71	1.56	VA Recommendation
150%	2.77	1.98	1.81	VA Recommendation
200%	3.15	2.24	2.07	VA Recommendation
250%	3.53	2.51	2.32	VA Recommendation
300%	3.91	2.78	2.58	VA Recommendation



Appendix A – VISN 17 West-Northwest Texas: Capital and Operational Costs Detail

Table 120 – Capital Costs by COA

	Status Quo	Modernization	VA Recommendation
VAMC Ideal Square Footage	-	846,910	899,980
Build New GSF	-	313,881	353,192
Renovate In Place GSF	-	280,336	266,022
Matched Convert To GSF	-	142,835	157,149
Demolition GSF	-	420,926	420,926
Total Build New Cost	\$0	(\$281,234,108)	(\$312,549,671)
Total Renovate In Place Cost	\$0	(\$57,429,945)	(\$53,417,830)
Total Matched Convert To Cost	\$0	(\$51,055,795)	(\$56,077,768)
Total Demolition Cost	\$0	(\$13,841,056)	(\$13,841,056)
Total Lease Build-Out Cost	\$0	(\$28,520,593)	(\$41,896,148)
Total New Lease Cost	\$0	(\$99,600,533)	(\$138,637,965)
Total Existing Lease Cost	(\$52,946,817)	(\$52,946,817)	(\$33,209,101)
NRM Costs for Owned Facilities	(\$363,237,069)	(\$98,870,526)	(\$105,066,039)
FCA Correction Cost	(\$59,239,720)	N/A	N/A
Estimated Base Modernization Cost	(\$475,423,606)	(\$683,499,372)	(\$754,695,578)
Additional Common/Lobby Space Needed (GSF)	-	109,858	123,617
Cost of Additional Common/Lobby Space	\$0	(\$79,446,004)	(\$89,355,068)
Additional Parking Cost	\$0	(\$3,249,911)	(\$3,476,228)



Potential Land Acquisition Cost	\$0	(\$241,699)	(\$159,097)
Seismic Correction Cost	(\$8,059,503)	(\$5,312,405)	(\$5,312,405)
Non-Building FCA Correction Cost	(\$5,186,428)	(\$5,186,428)	(\$5,186,428)
Activation Costs	\$0	(\$81,717,917)	(\$85,892,113)
Estimated Additional Costs for Modernization	(\$13,245,931)	(\$175,154,364)	(\$189,381,339)
Cost Adjustment: In-Progress Construction	N/A	N/A	\$0
Cost Adjustment: In-Progress Lease	N/A	N/A	\$0
Estimated Facilities Costs (PV)	(\$488,669,537)	(\$858,653,735)	(\$944,076,917)

Table 121 – Operational Costs by COA

	Status Quo	Modernization	VA Recommendation
VA Direct	(\$2,908,731,049)	(\$2,908,731,049)	(\$2,545,103,031)
Fixed Direct	(\$522,118,578)	(\$522,118,578)	(\$468,208,270)
VA Specific Direct	(\$67,694,344)	(\$67,694,344)	(\$65,217,546)
Indirect	(\$1,598,377,232)	(\$1,598,377,232)	(\$1,429,577,741)
VA Specific Indirect	(\$228,064,967)	(\$228,064,967)	(\$206,063,381)
Research and Education	(\$662,203)	(\$662,203)	(\$662,203)
VA Overhead	(\$282,955,868)	(\$282,955,868)	(\$251,401,823)
VA Care Operational Cost Total (PV)	(\$5,608,604,241)	(\$5,608,604,241)	(\$4,966,233,995)
CC Direct	(\$3,475,226,281)	(\$3,475,226,281)	(\$3,779,977,109)
Delivery and Operations	(\$156,315,618)	(\$156,315,618)	(\$165,366,536)
Care Coordination	(\$170,885,714)	(\$170,885,714)	(\$179,972,859)



CC Overhead	(\$204,046,315)	(\$204,046,315)	(\$216,091,200)
Admin PMPM	(\$1,317,346,441)	(\$1,317,346,441)	(\$1,273,833,772)
Non-VA Care Operational Cost Total (PV)	(\$5,323,820,369)	(\$5,323,820,369)	(\$5,615,241,476)
Estimated Operational Costs (PV)	(\$10,932,424,610)	(\$10,932,424,610)	(\$10,581,475,471)

Appendix B – VISN 17 West-Northwest Texas: 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	114	136	160	Over Supplied
IP Med/Surg	19	23	38	Over Supplied
IP MH	4	4	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 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	78.6%	78.6%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of VA-provided OP Primary Care	81.0%	81.0%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of VA-provided OP Specialty Care	73.5%	73.5%	Maintained within 1%



COA	Measure	Current	Future	Result
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	88.1%	88.1%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	98.0%	98.0%	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	78.6%	78.6%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Primary Care	81.0%	81.0%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of VA-provided OP Specialty Care	73.5%	73.5%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	88.1%	88.1%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	98.0%	98.0%	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	78.6%	78.6%	Maintained within 1%



COA	Measure	Current	Future	Result
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Primary Care	81.0%	81.0%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of VA-provided OP Specialty Care	73.5%	73.5%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Mental Health	88.1%	89.0%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of HPIDN-provided OP Primary Care	98.0%	99.2%	Increased 1% or more
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 126 – Quality Key Data Points for Scoring – Age

Facility	Main Patient Care Facility Construction Date	Built Pre-1970?
(V17) (519) Big Spring	1950	Yes
(V17) (504) Amarillo	1939	Yes

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



Inpatient Acute Demand

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

Facility	Service	Demand Guideline	Meets or Exceeds Guideline?	VA Recommendation
(V17) (504) Amarillo	IP Med	20 ADC	No	Partner (CCN)
(V17) (504) Amarillo	IP Surg	1,600 Cases	Yes	Partner (CCN)
(V17) (504) Amarillo	IP MH	8 ADC	No Service	N/A

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

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

Facilities and Sustainability

Table 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?
(V17) (519) Big Spring	1950	N/A	Yes
(V17) (504) Amarillo	1939	1988	Yes

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

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

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

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



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
(V17) (504) Amarillo	Deactivates IP Acute Service with training	No Research Program	No PRC Designation	Does Not Increase Training/Research Opportunities



VISN 17 Southwest Texas

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 17 Southwest Texas Market due to its leading Cost Benefit Index (CBI) score. The CBI score for the VA Recommendation COA (0.86) is 5.7% lower than the Status Quo COA (0.92) and 1.5% lower than the Modernization COA (0.88).

The VA Recommendation COA is \$338.9 M (3.7%) more expensive than the Status Quo COA and \$146.7 M (1.5%) less expensive than the Modernization COA. While the VA Recommendation COA increases cost compared to the Status Quo COA and decreases costs compared to the Modernization COA, it also increases benefits; the VA Recommendation (11 points) outscored the Status Quo COA (10 points) and tied the Modernization COA (11 points).

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 (\$)	(\$9,167,594,788)	(\$9,653,260,760)	(\$9,506,525,977)
Benefit Analysis Score	10	11	11
CBI (Normalized in \$Billions)	0.92	0.88	0.86
CBI % Change vs. Status Quo	N/A	-4.3%	-5.7%
CBI % Change vs. Modernization	N/A	N/A	-1.5%

Table 132 – Cost Analysis Cost Variance by COA

Cost Variance	Status Quo	Modernization	VA Recommendation
Capital Cost Variance vs. Status Quo	N/A	(\$485,665,973)	(\$338,931,189)
Operational Cost Variance vs. Status Quo	N/A	\$0	\$0
Estimated Total Cost Variance vs. Status Quo	N/A	(\$485,665,973)	(\$338,931,189)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	\$146,734,784

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	2
Access	2	2	1
Quality	3	3	3
Facilities and Sustainability	2	2	3
Mission	2	2	2
Total Benefit Score	10	11	11

VA Recommendation

The VA Recommendation for the VISN 17 Southwest Texas Market COA is detailed below.

- Modernize and realign the El Paso HCC by:
 - Constructing a new outpatient facility in the vicinity of the William Beaumont Army Medical Center (WBAMC) and relocating outpatient primary care, mental health care, specialty care and outpatient surgery services provided at the El Paso HCC to the new facility
 - Closing the El Paso HCC

Cost Analysis

The Cost Analysis highlighted the estimated Present Value (PV) of each COA for the VISN 17 Southwest Texas Market across a 30-year horizon. The cost of the VA Recommendation COA (\$9.5 B) was higher than the Status Quo COA (\$9.2 B) and lower than the Modernization COA (\$9.7 B).

For the VISN 17 Southwest Texas Market, the VA Recommendation COA is \$338.9 M (3.7%) more expensive than the Status Quo COA and \$146.7 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 17 Southwest Texas: Capital and Operational Costs Detail.

Table 134 – Total Cost Summary by COA

	Status Quo	Modernization	VA Recommendation
Total Costs (PV)	(\$9,167,594,788)	(\$9,653,260,760)	(\$9,506,525,977)
Capital Cost Variance vs. Status Quo	N/A	(\$485,665,973)	(\$338,931,189)



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	(\$485,665,973)	(\$338,931,189)
Estimated Total Cost Variance vs. Modernization	N/A	N/A	\$146,734,784

Benefit Analysis

This section describes the non-financial benefit analysis results for the VISN 17 Southwest Texas Market across five domains: Demand and Supply, Access, Quality, Facilities and Sustainability, and Mission. The results indicate that the VA Recommendation COA and Modernization COA provide the most benefit (greatest Total Benefit Score) in comparison to the Status Quo COA.

Table 135 – Benefit Analysis Scores by COA

Key Benefit Domain	Status Quo	Modernization	VA Recommendation
Demand and Supply	1	2	2
Access	2	2	1
Quality	3	3	3
Facilities and Sustainability	2	2	3
Mission	2	2	2
Total Benefit Score	10	11	11

The scoring and rationale within each domain are described in the following sections. The data underlying the analysis is provided in Appendix B – VISN 17 Southwest Texas: 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 17 Southwest Texas for this domain.

Table 136 – Demand and Supply Scoring Summary

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

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

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

VA Recommendation: The COA received a score of 2 because, while the COA right-sizes services to meet the future Veteran enrollee population, 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, expansion of services).

Access

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

The table below shows the CBA access scores for VISN 17 Southwest Texas for this domain.

Table 137 – 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 was maintained within 1%, specialty care decreased 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 17 Southwest Texas 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 17 Southwest Texas 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 action to support VA’s ability to recruit or retain providers:

- Expands the partnership with the William Beaumont Army 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 17 Southwest Texas for this domain.

Table 140 – Mission Scoring Summary

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

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

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

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

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

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

- **Education:** The COA received a score of 2 because inpatient acute services remain VA-delivered and thus the COA maintains existing training programs.
- **Research:** The COA received a score of 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.

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 17 Southwest Texas Market, six scenarios changed the outcome of the CBA:

- Increasing the Modernization benefits score by one point
- Increasing the Modernization benefits score by two points
- Increasing the Modernization benefits score by three points
- Increasing the VA Capital Cost by 200%; Status Quo becomes the preferred COA
- Increasing the VA Capital Cost by 250%; Status Quo becomes the preferred COA
- Increasing the VA Capital Cost by 300%; Status Quo becomes the preferred COA

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	0.92	0.88	0.86	VA Recommendation
+1	0.83	0.80	0.86	Modernization
+2	0.76	0.74	0.86	Modernization
+3	0.71	0.69	0.86	Modernization



Table 143 – Sensitivity Analyses – VA Capital Cost Increase

VA Capital Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	0.92	0.88	0.86	VA Recommendation
50%	0.92	0.91	0.89	VA Recommendation
100%	0.93	0.93	0.91	VA Recommendation
150%	0.93	0.96	0.93	VA Recommendation
200%	0.94	0.99	0.95	Status Quo
250%	0.95	1.01	0.97	Status Quo
300%	0.95	1.04	0.99	Status Quo

Table 144 – Sensitivity Analyses – VA Operational Cost Increase

VA Operational Cost Increase %	Status Quo CBI	Modernization CBI	VA Recommendation CBI	Leader (lowest CBI)
0%	0.92	0.88	0.86	VA Recommendation
50%	1.09	1.04	1.03	VA Recommendation
100%	1.27	1.20	1.19	VA Recommendation
150%	1.45	1.36	1.35	VA Recommendation
200%	1.63	1.52	1.51	VA Recommendation
250%	1.80	1.68	1.67	VA Recommendation
300%	1.98	1.84	1.83	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%	0.92	0.88	0.86	VA Recommendation
50%	1.19	1.13	1.11	VA Recommendation
100%	1.47	1.38	1.36	VA Recommendation
150%	1.74	1.63	1.62	VA Recommendation
200%	2.02	1.88	1.87	VA Recommendation
250%	2.29	2.13	2.12	VA Recommendation
300%	2.57	2.38	2.37	VA Recommendation



Appendix A – VISN 17 Southwest Texas: Capital and Operational Costs Detail

Table 146 – Capital Costs by COA

	Status Quo	Modernization	VA Recommendation
VAMC Ideal Square Footage	-	594,478	-
Build New GSF	-	178,319	-
Renovate In Place GSF	-	219,811	-
Matched Convert To GSF	-	133,936	-
Demolition GSF	-	13,533	-
Total Build New Cost	\$0	(\$155,798,455)	\$0
Total Renovate In Place Cost	\$0	(\$68,820,352)	\$0
Total Matched Convert To Cost	\$0	(\$46,387,455)	\$0
Total Demolition Cost	\$0	(\$441,457)	(\$7,083,599)
Total Lease Build-Out Cost	\$0	(\$12,927,258)	(\$95,000,593)
Total New Lease Cost	\$0	(\$43,131,819)	(\$317,161,471)
Total Existing Lease Cost	(\$38,333,216)	(\$38,333,160)	(\$38,333,216)
NRM Costs for Owned Facilities	(\$60,018,442)	(\$69,400,873)	\$0
FCA Correction Cost	(\$11,167,721)	N/A	N/A
Estimated Base Modernization Cost	(\$109,519,379)	(\$435,240,829)	(\$457,578,879)
Additional Common/Lobby Space Needed (GSF)	-	62,412	-
Cost of Additional Common/Lobby Space	\$0	(\$44,880,478)	\$0
Additional Parking Cost	\$0	(\$30,435,929)	\$0



Potential Land Acquisition Cost	\$0	(\$145,057)	\$0
Seismic Correction Cost	(\$8,969,848)	(\$8,969,848)	\$0
Non-Building FCA Correction Cost	(\$158,463)	(\$158,463)	\$0
Activation Costs	\$0	(\$84,483,058)	\$0
Estimated Additional Costs for Modernization	(\$9,128,311)	(\$169,072,833)	\$0
Cost Adjustment: In-Progress Construction	N/A	N/A	\$0
Cost Adjustment: In-Progress Lease	N/A	N/A	\$0
Estimated Facilities Costs (PV)	(\$118,647,690)	(\$604,313,662)	(\$457,578,879)

Table 147 – Operational Costs by COA

	Status Quo	Modernization	VA Recommendation
VA Direct	(\$1,897,975,839)	(\$1,897,975,839)	(\$1,897,975,839)
Fixed Direct	(\$180,198,518)	(\$180,198,518)	(\$180,198,518)
VA Specific Direct	(\$29,432,733)	(\$29,432,733)	(\$29,432,733)
Indirect	(\$1,194,723,305)	(\$1,194,723,305)	(\$1,194,723,305)
VA Specific Indirect	(\$69,522,050)	(\$69,522,050)	(\$69,522,050)
Research and Education	(\$106)	(\$106)	(\$106)
VA Overhead	(\$169,411,581)	(\$169,411,581)	(\$169,411,581)
VA Care Operational Cost Total (PV)	(\$3,541,264,132)	(\$3,541,264,132)	(\$3,541,264,132)
CC Direct	(\$3,693,870,606)	(\$3,693,870,606)	(\$3,693,870,606)
Delivery and Operations	(\$170,682,632)	(\$170,682,632)	(\$170,682,632)
Care Coordination	(\$187,491,970)	(\$187,491,970)	(\$187,491,970)



CC Overhead	(\$220,849,446)	(\$220,849,446)	(\$220,849,446)
Admin PMPM	(\$1,234,788,311)	(\$1,234,788,311)	(\$1,234,788,311)
Non-VA Care Operational Cost Total (PV)	(\$5,507,682,966)	(\$5,507,682,966)	(\$5,507,682,966)
Estimated Operational Costs (PV)	(\$9,048,947,098)	(\$9,048,947,098)	(\$9,048,947,098)

Appendix B – VISN 17 Southwest Texas: 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	1	1	0	Under Supplied
IP Med/Surg	2	2	0	Under Supplied
IP MH	2	2	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 149 – Demand and Supply Key Data Points for Scoring – Outpatient (OP)

Physician Supply Adequacy	Count of Specialties	Percentage
Adequately Supplied	4	15%
Under Supplied	23	85%

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	98.7%	98.7%	Maintained within 1%
Status Quo	% of enrollees within 30 minutes of VA-provided OP Primary Care	98.7%	98.7%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of VA-provided OP Specialty Care	98.1%	98.1%	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	99.2%	99.2%	Maintained within 1%
Status Quo	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	99.6%	99.6%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Mental Health	98.7%	98.7%	Maintained within 1%
Modernization	% of enrollees within 30 minutes of VA-provided OP Primary Care	98.7%	98.7%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of VA-provided OP Specialty Care	98.1%	98.1%	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	99.2%	99.2%	Maintained within 1%
Modernization	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	99.6%	99.6%	Maintained within 1%
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Mental Health	98.7%	98.8%	Maintained within 1%



COA	Measure	Current	Future	Result
VA Recommendation	% of enrollees within 30 minutes of VA-provided OP Primary Care	98.7%	98.8%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of VA-provided OP Specialty Care	98.1%	96.8%	Decreased 1% or more
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	99.2%	99.2%	Maintained within 1%
VA Recommendation	% of enrollees within 60 minutes of HPIDN-provided OP Specialty Care	99.6%	99.6%	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?
(V17) (756) El Paso-Texas	1995	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.

*This market does not support VA-provided inpatient acute 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?
(V17) (756) El Paso-Texas	1995	2009	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?
(V17) William Beaumont Army Medical Center 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
N/A	N/A	N/A	N/A	Does Not Increase Training/Research Opportunities