Capital Asset Realignment for Enhanced Services (CARES)

Stage I Summary Report
Site: CAVHCS Montgomery Division

August 2005

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OVERVIEW AND CURRENT STATE

Statement of Work

Team PwC is assisting the VA in identifying the optimal approach to provide current and projected veterans with health care equal to or better than is currently provided in terms of access, quality, and cost effectiveness, while maximizing any potential reuse of all or portions of the current real property inventory at the study sites. This work relies on two principal teams to undertake healthcare planning and capital planning.

Specifically, the Montgomery study should review the feasibility of converting the Montgomery Central Alabama Veterans Health Care System (CAVHCS) to an outpatient-only facility as part of the CARES implementation process. The VA interprets the scope of this study to preclude expansion of inpatient services at CAVHCS, Montgomery Division.

Summary of Market

CAVHCS, Montgomery Division is located within VISN 7. VISN 7 is composed of three markets; Alabama, Georgia and South Carolina. Montgomery is in the Alabama market.

CAVHCS was established January 1, 1997, from the merger of the Montgomery and Tuskegee VA Medical Centers and includes Community Based Outpatient Clinics (CBOCs) in Dothan, Alabama and Columbus, Georgia. The East (Tuskegee) and West (Montgomery) campuses are approximately 40 miles apart.

These four CAVHCS sites serve 134,000 veterans in 43 counties in the central and southeastern portions of Alabama and western Georgia. Approximately 123,000 veterans are currently enrolled in the Alabama market. Services include primary care and outpatient mental health at all four sites and inpatient medical and surgical care at the Montgomery campus. Inpatient mental health programs, geriatrics, extended care, and a homeless domiciliary are provided at the Tuskegee campus.

Services within CAVHCS were realigned in 2003 to consolidate inpatient medical/surgical services at the Montgomery campus, and behavioral health, nursing home and domiciliary services at Tuskegee. These two campuses operate in a coordinated manner in order to best integrate medical/surgical and behavioral services, and provide continuity of care. CAVHCS, Montgomery Division also participates in a service sharing arrangement with Maxwell Air Force Base for the specialty of podiatry.

73% of the Alabama market is designated as rural. For primary care, 63% of enrollees within the Alabama market are within the access guidelines, while 55% of enrollees within the Alabama market are within the access guidelines for acute care.

Table 1: Baseline Summary of Drive Times for Alabama Market
% of Enrollees meeting VA Access Guideline Drive Times
(2003)

VA Drive Time Guidelines					
Primary Care		**Acute Hospital**		**Tertiary Care**[1]	
Baseline	**Meets Threshold**	**Baseline**	**Meets Threshold**	**Baseline**	**Meets Threshold**
62.8%	No	55.0%	No	100%	Yes

Summary of Current Services Provided

CAVHCS, Montgomery Division, also known as the "West Campus" of CAVHCS, houses 45 inpatient beds for acute medicine (32), surgery (4), medical ICU (7), and surgical ICU (2). The facility also offers an extensive array of ambulatory services, including medicine, surgery, and behavioral health. There is an urgent care center on site, but no true emergency department.

Primary Care clinics include a clinical preventive services program, a weight management program, and tobacco cessation. General medicine clinics are supplemented by specialty referrals as needed. Surgical specialties offered on site include orthopedics, urology, and ophthalmology.

Ambulatory and inpatient medicine and surgery services are supported by basic diagnostic ancillaries, including CT scan, ultrasound, echocardiography, EMG, and NCV. Not provided on campus are MRI, mammography, angiography, and most nuclear medicine studies. Clinical laboratory services include routine hematology, chemistry, cytopathology, microbiology, tissue typing, and toxicology. Specialized diagnostic testing is referred out.

Other notable outpatient services provided at the Montgomery campus include audiology, dentistry, geriatrics, mental health and substance abuse, pharmacy, prosthetics, rehabilitation, and a women's health clinic. The site also has emergency preparedness capability in decontamination and pharmacy cache.

The outpatient podiatry service was relocated to Maxwell Air Force Base in 2004 as part of a broad agreement to share services and facilities between CAVHCS, Montgomery Division and Maxwell. The podiatry clinic represents the first implementation of the Memorandum of Understanding (MOU) between Maxwell Air Force Base and CAVHCS, Montgomery Division.

The Tuskegee facility, or "East Campus", provides the CAVHCS with all inpatient psychiatry/substance abuse, nursing home, rehabilitation, and domiciliary services. The two campuses are closely integrated.

Specialty services not provided at Montgomery campus are referred either to other VAMCs, primarily Birmingham and Atlanta, or contracted out to a local community provider. Examples of these referred services include oncology, rheumatology, infectious disease, allergy,

[1] Tertiary care data is based on 2001 figures. All other information is based on 2003 figures.

dermatology, nephrology, dialysis, otolaryngology, invasive cardiology, cardiac surgery, neurology, neurosurgery, vascular surgery, hematology/oncology, and transplants. VA specialized programs in blind rehabilitation and spinal cord injury are provided at other VA centers.

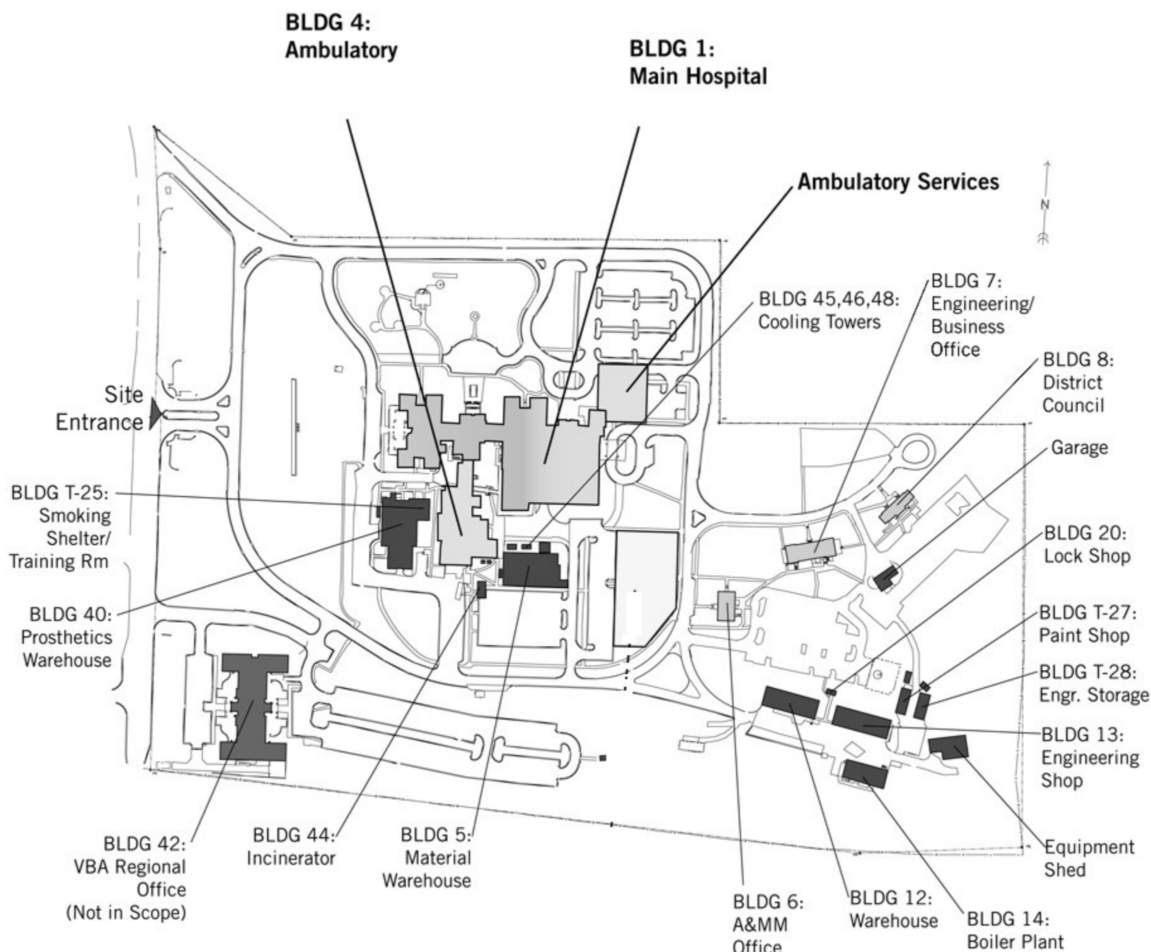
Summary of Current Facility Condition

CAVHCS, Montgomery Division contains 22 buildings on 50.3 acres. It is located at 215 Perry Hill Road in Montgomery. The facility is close to downtown and easily accessible from I-85.

Conditions of buildings and components of buildings vary widely across the Montgomery campus. The exterior walls and roofs of the principal patient care and support buildings built in 1939 (Buildings 1 and 4) are reported as being in average to poor condition. Exterior masonry walls of this era were typically built without drainage cavities that are typical of masonry walls today, requiring continued applications of water repellant to the exterior masonry face to control water absorption. Mechanical systems within Building 1 are reported as being in very poor condition requiring immediate attention. While the cooling towers were replaced in 2001, all other components of the mechanical system require upgrades.

The majority of plumbing and mechanical piping systems within Building 1 are reported as being in poor to failing condition, requiring upgrades. Electrical systems within Building 1 are reported as being in average to poor condition, and in conjunction with mechanical system replacement, electrical systems should be upgraded at the same time. Elevators within Building 1 are reported to be in poor condition and require upgrades. The facility does not meet 100% of Federal Uniform Accessibility Standards related to handicap accessibility issues. Significant capital investments are required for the facility to meet modern and safe standards.

Figure 1: Site Map for CAVHCS, Montgomery Division



COMMUNITY INFORMATION

Healthcare Market Assessment

The population of Montgomery is served by various community hospitals, including tertiary care, general medical/surgical, and specialty facilities. Described below are those facilities relevant to the BPOs presented for CAVHCS, Montgomery Division that involve contracting.

Jackson Hospital, Montgomery, AL

Jackson Hospital is a tertiary care facility with 277 beds, and nearly 15,000 admissions in 2003. The occupancy rate for that year was 66.5%, down from 79.7% in 2001. Of all inpatient days, 58% are Medicare. The top five diagnosis related groups (DRGs) in 2003 were heart failure, pneumonia, major joint & limb procedures, intracranial hemorrhage & stroke, and chronic

obstructive pulmonary disease. They performed 64 coronary artery bypass grafts (CABGs) in 2003. Jackson offers a full range of diagnostic and therapeutic services, although not including neurosurgery.

Baptist Health System, Montgomery, AL

Baptist Health System is comprised of three hospitals, Baptist South, Baptist East, and Baptist Downtown. The largest of these is Baptist South, a tertiary care facility, and the only one for which utilization data was found. Baptist Medical Center South has 382 beds, with 20,552 admissions in 2003. Occupancy rate was 67.5% for 2003, steady over three years. Of all inpatient days, 40% are Medicare. The top five DRGs in 2003 were heart failure, angioplasty, major joint & limb procedures, psychoses, and cardiac pacemaker insertion. They did 120 CABGs in 2003.

BUSINESS PLAN OPTION DEVELOPMENT

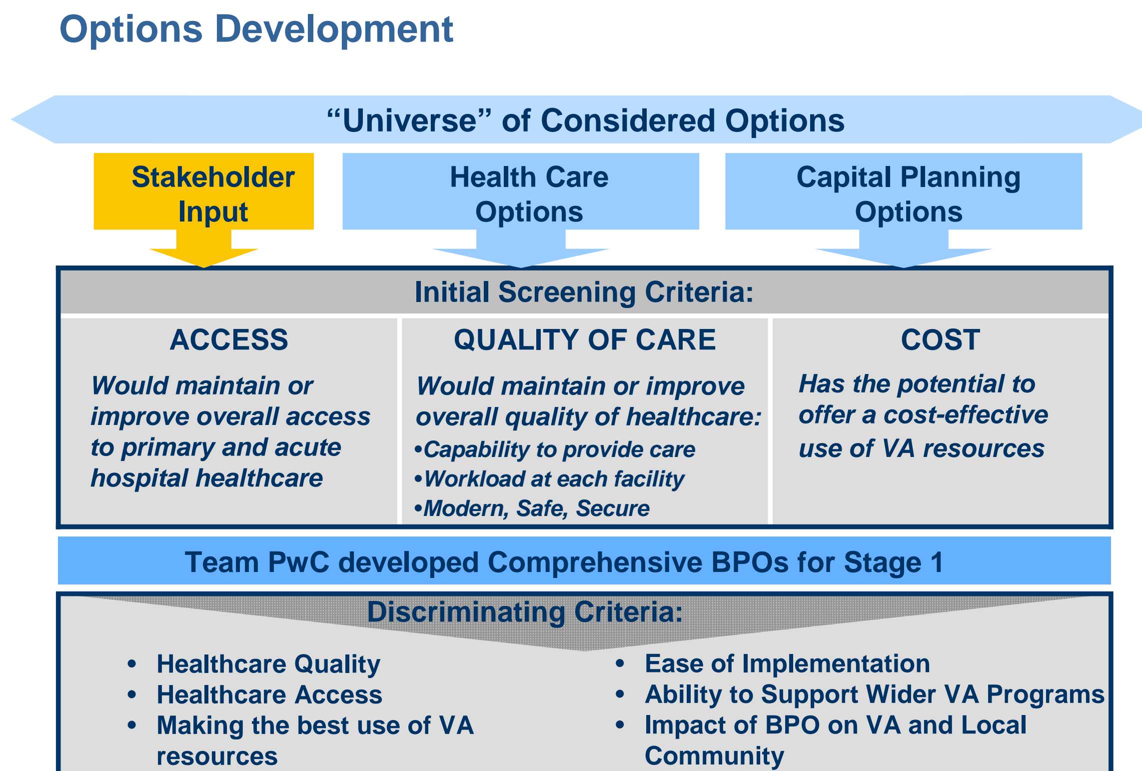
Option Development Process

Team PwC developed a set of comprehensive BPOs to be considered for CAVHCS, Montgomery Division. A comprehensive BPO is defined as consisting of a single healthcare option (HC) combined with at least one associated capital planning option (CP). Therefore, the formula for a comprehensive BPO would be:

Comprehensive BPO = HC option + CP option

A multi-step process was employed in the development and selection of these comprehensive BPOs to be further assessed. Initially, a broad range or "universe" of discrete and credible healthcare and associated capital planning options were developed by the teams. These options were tested against the agreed-upon initial screening criteria of access, quality, and cost. The healthcare and capital options that passed the initial screenings were then further considered to be potential healthcare and capital options to comprise a comprehensive BPO. All of the comprehensive BPOs were then further assessed at more detailed level according to set of discriminating criteria.

Figure 2: Option Development Process



Stakeholder Concerns

For the CAVHCS, Montgomery Division CARES Study Site, 51 forms of stakeholder input were received between January 1, 2005 and June 30, 2005 including comment forms (paper and electronic), letters, written testimony, oral testimony, and other forms. The greatest source of written and electronic input was Veterans. Other major respondent groups included Veterans' family members and VA or medical center employees.

Stakeholders who submitted written and electronic input indicated that their top three key concerns centered on keeping the facility open, the effect on services and providers, and the use of the facility. No stakeholders expressed written or electronic input regarding access or budget/policy concerns. Stakeholders who contributed oral testimony at the Local Advisory Panel public meeting indicated key concerns of keeping the facility open, the effect on services and providers, and budget/policy issues. Several stakeholders also expressed extreme dissatisfaction with the quality of the inpatient services.

Table 2: Definitions of Categories of Stakeholder Concern

All written submissions from stakeholders were read and sorted according to specified "Key Concerns of Stakeholders". If the author conveyed multiple concerns, each concern was recorded.

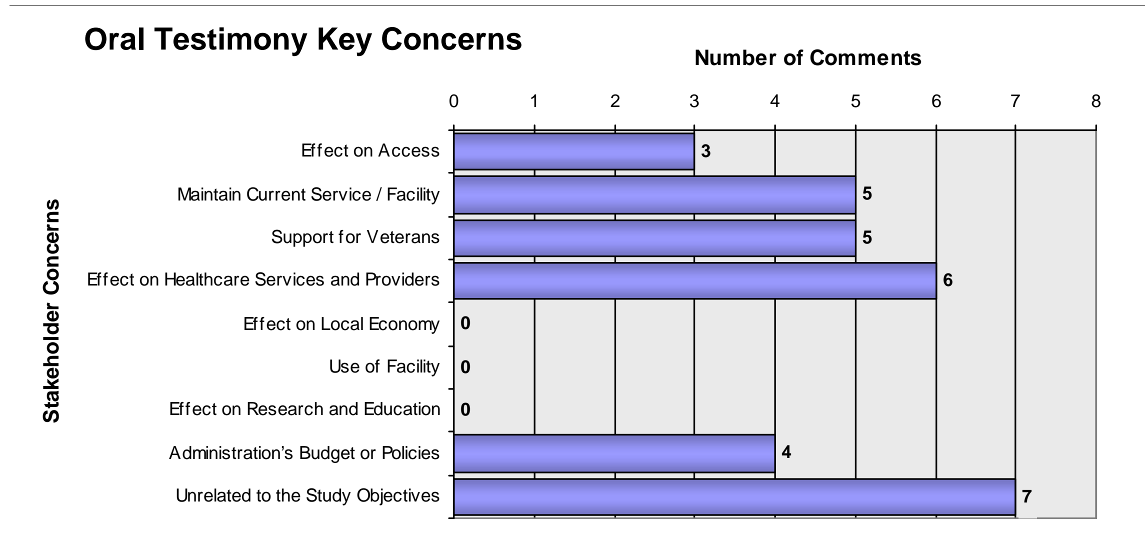
The definitions of the categories are listed below:

Stakeholder Concern	***Definition***
Effect on Access	Involves a concern about traveling to another facility or the location of the present facility.
Maintain Current Service/Facility	General comments related to keeping the facility open and maintaining services at the current site.
Support for Veterans	Concerns about the federal government/VA's obligation to provide health care to current and future veterans.
Effect on Healthcare Services & Providers	Concerns about changing services or providers at a site.
Effect on Local Economy	Concerns about loss of jobs or local economic effects of change.
Use of Facility	Concerns or suggestions related to the use of the land or facility.
Effect on Research & Education	Concerns about the impact a change would have on research or education programs at the facility.
Administration's Budget or Policies	Concerns about the effects of the administration's budget or other policies on health care for veterans.
Unrelated to the Study Objectives	Other comments or concerns that are not specifically related to the study.

Table 3: Oral Testimony Key Concerns

Analysis of Oral Testimony Input Only (Oral Testimony at LAP Meeting):

The breakout of "Key Stakeholder Concerns" that were expressed during Oral Testimony for the Montgomery study site is as follows*:



* Note that totals reflect the number of times a "key concern" was raised by a stakeholder. If one stakeholder addressed multiple "key concerns", each concern is included in the totals.

COMPREHENSIVE BUSINESS PLAN OPTIONS

Baseline Option

The Baseline is the BPO under which there would not be significant changes in either the location or type of services provided in the study site. In the Baseline BPO, the Secretary's Decision and forecasted long-term healthcare demand forecasts and trends, as indicated by the demand forecasted for 2023, are applied to the current healthcare provision solution for the study site.

Specifically, the Baseline BPO is characterized by the following:

- Healthcare continues to be provided as currently delivered, except to the extent healthcare volumes for particular procedures fall below key quality or cost effectiveness threshold levels.
- Capital planning costs allow for current facilities to receive such investment as is required to rectify any material deficiencies (e.g., in safety or security) such that they would provide a safe healthcare delivery environment as required in the Secretary's Decision.
- Life Cycle capital planning costs allow for on-going preventative maintenance and life-cycle maintenance of major and minor building elements.

Therefore, the Baseline would retain inpatient medicine and surgery services at CAVHCS, Montgomery Division. Existing ambulatory and outpatient mental health services would continue to be provided at CAVHCS, Montgomery Division.

Options Not Selected for Assessment

The following options were also considered, but were not selected for assessment as a component of a comprehensive BPO.

Table 4: Options Not Selected for Assessment

Label	Description	Screening Results
Transfer inpatient services and ambulatory surgery services to Atlanta VAMC	Inpatient medical and surgical services to be provided at Atlanta VAMC. All ambulatory surgery services to be provided at Atlanta VAMC. Existing outpatient services remain at CAVHCS, Montgomery Division	Failed drive time guidelines for acute care.
Transfer inpatient services and ambulatory services to Birmingham VAMC	Inpatient medical and surgical services to be provided at Atlanta VAMC. All ambulatory surgery services to be provided at Birmingham VAMC. Existing outpatient services remain at CAVHCS, Montgomery Division	Failed drive time guidelines for acute care.
Expansion to accommodate existing services for non-surgical ambulatory services	Expand existing facility to accommodate increased non-surgical ambulatory utilization projected for year 2023	A replacement option was selected instead of this renovate option; it provided far greater cost efficiency potential.

Comprehensive BPOs To Be Assessed in Stage I

The comprehensive BPOs incorporate healthcare and capital option components as previously described. The combinations of healthcare and capital options were formulated in order to arrive at the most appropriate options for the site. They will be more thoroughly assessed according to the discriminating criteria in the subsequent sections. The following describes each of the BPOs and professional judgment that supports the construction of the BPOs.

Table 5: Comprehensive BPOs to be Assessed in Stage I

BPO Designation	Label	Description	Support for BPO Selection
BPO 1 **Comprising: HC-1/CP-1**	Baseline	Current state projected out to 2013 and 2023 without any changes to facilities or programs, but accounting for projected utilization changes, and assuming same or better quality, and necessary maintenance for a safe, secure, and modern healthcare environment. Conduct normal maintenance and upgrades necessary to provide a modern, safe, and secure environment for healthcare. Some non-hazardous, but less than ideal existing conditions will be "grandfathered" and not updated. To the extent that utilization exceeds the physical capacity of the facility to deliver care, these services will be purchased in the community. .	• BPO would maintain the only VA inpatient medical/surgical beds in Alabama other than Birmingham. • CAVHCS already has a service sharing arrangement with Maxwell AFB in podiatry, which includes the occasional inpatient case. • CAVHCS has developed an integrated system of medical and behavioral healthcare in two quasi-specialized facilities 40 miles apart (Montgomery and Tuskegee), enabling prompt recognition and treatment in the appropriate setting. • BPO would maintain/enhance research and education opportunities.
BPO 2 **Comprising: HC-2B/CP-2C**	Inpatient and ambulatory surgery provided by local community providers. Non-surgical ambulatory services and inpatient medicine will remain at Montgomery. New space constructed for ambulatory care.	Inpatient surgery services, as well as ambulatory surgery, to be provided by a local community provider. All other services remain at current location of provision. Construct new space for Ambulatory Care and renovate vacated areas previously occupied by surgical related services.	• In this option, inpatient medicine service would remain at CAVHCS, Montgomery Division, thus maintaining continuity of care for patients transferring between Montgomery and Tuskegee.
BPO 3 **Comprising: HC-2C/CP-2A**	Inpatient medicine/surgery services provided by local community provider. Ambulatory services to be provided in a renovated building on CAVHCS campus.	Inpatient medicine and surgery services to be provided by a local community provider. Ambulatory surgery and all other services remain at current location of provision. Renovate the existing inpatient areas of Building 1 and other mothballed space to accommodate increased ambulatory utilization.	• Maintenance of ambulatory surgery capability at VA will provide a more complete array of services to veterans on site than outpatient clinics alone. • Maintenance of ambulatory surgery capability at VA will enable the possibility of retaining surgical staff, who will also be needed to staff clinics, and follow-up care for veterans receiving surgical care in the community.

BPO Designation	Label	Description	Support for BPO Selection
BPO 4 **Comprising: HC-2A/CP-2B**	Inpatient medicine and surgery services and ambulatory surgery services provided by local community provider. New ambulatory care facility constructed.	Inpatient medicine and surgery services, as well as ambulatory surgery, to be provided by a local community provider. All other services remain at current location of provision. Construct a new Ambulatory Care facility on the Perry Hill Campus, consolidating functions contained throughout the site into one building. Demolish the existing facility.	• Local community providers operate a total of four acute medical/surgical facilities in Montgomery, thus offering choice for veterans, and for some, improved access. • All ancillary services would be available on site at the private facilities, which is not the case at VAMC. • Addresses concerns of some stakeholders who are dissatisfied with the quality of inpatient care, while augmenting the ability to deliver ambulatory care. • Development of a completely new ambulatory care facility will provide a state-of-the-art environment for the delivery of care. • Significant expense required for the repair, replacement, and upgrade of existing facilities which are at the end of their useful life can be avoided completely. • Ongoing maintenance costs will be reduced. • A new facility will utilize a smaller portion of the property, thus creating future potential reuse opportunities.
BPO 5 **Comprising: HC-3A/CP-2A**	Inpatient services provided by local community providers and ambulatory services remain on site in newly renovated ambulatory facility. Maxwell patients to receive ambulatory surgery at CAVHCS.	Inpatient medicine and surgery services to be provided by a local community provider. Ambulatory surgery services provided to Maxwell Air Force Base beneficiaries at CAVHCS, Montgomery Division. Renovate the existing inpatient areas of Building 1 and other mothballed space to accommodate increased ambulatory utilization.	• Maintenance of ambulatory surgery capability at VA will provide a more complete array of services to veterans on site than outpatient clinics alone. • Maintenance of ambulatory surgery capability at VA will enable the possibility of retaining surgical staff, who will also be needed to staff clinics, and follow-up care for veterans receiving surgical care in the community. • Potential new revenue for VA.

ASSESSMENT SUMMARY

Table 6: BPO Assessment Summary

	Local Community Provider			Maxwell Air Force Base
Assessment Summary	**BPO 2**	**BPO 3**	**BPO 4**	**BPO 5**
Healthcare Access				
Primary	↔	↔	↔	↔
Acute	↔	↔	↔	↔
Tertiary	↔	↔	↔	↔
Healthcare Quality				
Quality of medical services	↔	↔	↔	↔
Modern, safe, and secure environment	↔	↔	↔	↔
Meets forecasted need	↔	↔	↔	↔
Impact on VA and Local Community				
Human Resources: FTEE need (based on volume)	Decrease	Decrease	Decrease	Decrease
Recruitment / retention	↓	↓	↓	↓
Research	↓	↓	↓	↓
Education and Academic Affiliations	↓	↓	↓	↓
Cost Effectiveness				
Operating cost effectiveness	-	-	-	-
Level of capital expenditure anticipated	↑↑	↑↑	↑↑	↑↑
Level of re-use proceeds	N/A	N/A	N/A	N/A
Cost avoidance opportunities	↑↑	↑↑	↑↑	↑↑
Overall cost effectiveness	-	-	-	-
Ease of Implementation				
Riskiness of BPO implementation	↔	↔	↔	↔
Wider VA Program Support				
DoD sharing	↔	↔	↔	↑
One-VA Integration	↓	↓	↓	↓
Special Considerations	↓	↓	↓	↓

Evaluation System

The evaluation system below is used to compare BPOs to the Baseline BPO.

Rating for all categories except cost and overall evaluation	
↑	The BPO has the potential to provide a slightly improved state than the Baseline BPO for the specific discriminating criteria (e.g. access, quality, etc.)
↔	The BPO has the potential to provide materially the state as the Baseline BPO for the specific discriminating criteria (e.g. access, quality, etc.)
↓	The BPO has the potential to provide a slightly lower or reduced state than the Baseline BPO for the specific discriminating criteria (e.g. access, quality, etc.).
Operating cost effectiveness (based on results of initial healthcare/operating costs)	
↑↑↑	The BPO has the potential to provide significant recurring operating cost savings compared to the Baseline BPO (>15%)
↑↑	The BPO has the potential to provide significant recurring operating cost savings compared to the Baseline BPO (>10%)
↑	The BPO has the potential to provide some recurring operating cost savings compared to the Baseline BPO (5%)
-	The BPO has the potential to require materially the same operating costs as the Baseline BPO (+/- 5%)
↓	The BPO has the potential to require slightly higher operating costs than the Baseline BPO (>5%)
↓↓	The BPO has the potential to require slightly higher operating costs than the Baseline BPO (>10%)
↓↓↓	The BPO has the potential to require slightly higher operating costs than the Baseline BPO (>15%)
Level of capital expenditure anticipated (based on results of initial capital planning costs)	
↓↓↓↓	Very significant investment required relative to the Baseline BPO (≥ 200%)
↓↓	Significant investment required relative to the Baseline BPO (121% to 199%)
-	Similar level of investment required relative to the Baseline BPO (80% to 120% of Baseline)
↑↑	Reduced level of investment required relative to the Baseline BPO (40%-80%)
↑↑↑↑	Almost no investment required (≤ 39%)
Cost avoidance (based on comparison to Baseline BPO)	
-	No cost avoidance opportunity
↑↑	Significant savings in necessary capital investment in the Baseline BPO
↑↑↑↑	Very significant savings in essential capital investment in the Baseline BPO
Overall Cost effectiveness (based on initial NPC calculations)	
↓↓↓↓	Very significantly higher Net Present Cost relative to the Baseline BPO (>1.15 times)
↓↓	Significantly higher Net Present Cost relative to the Baseline BPO (1.10 – 1.15 times)
↓	Higher Net Present Cost relative to the Baseline BPO (1.05 – 1.09 times)
-	Similar level of Net Present Cost compared to the baseline (+/- 5% of Baseline)
↑	Lower Net Present Cost relative to the baseline (90-95% of Baseline)
↑↑	Significantly lower Net Present Cost relative to the Baseline BPO (85-90% of Baseline)
↑↑↑↑	Very significantly lower Net Present Cost relative to the Baseline BPO (<85% of Baseline)

Acronyms

AMB	Ambulatory
BPO	Business Plan Option
CBOC	Community Based Outpatient Clinic
CIC	CARES Implementation Category
DoD	Department of Defense
IP	Inpatient
LAP	Local Advisory Panel
OP	Outpatient
MH	Mental Health
VA	Department of Veterans Affairs
VACO	VA Central Office
VAMC	Veterans Affairs Medical Center
VISN	Veterans Integrated Service Network

Definitions

Access Guidelines – Minimum percentage of enrollees living within a specific travel time to obtain VA care. For the CARES process, guidelines were defined as follows:

> *Access to Primary Care*: 70 percent of veterans in urban and rural communities must be within 30 minutes of primary care; for highly rural areas, this requirement is within 60 minutes.
>
> *Access to Hospital Care*: 65 percent of veterans in urban communities must be within 60 minutes of hospital care; for rural areas, this requirement is within 90 minutes; and for highly rural areas, this requirement is within 120 minutes.
>
> *Access to Tertiary Care*: 65 percent of veterans in urban and rural communities must be within 4 hours of tertiary care; for highly rural areas, this requirement is within the VISN.

CARES (Capital Asset Realignment for Enhanced Services) – a planning process that evaluates future demand for veterans' healthcare services against current supply and realigns VHA capital assets in a way that results in more accessible, high quality healthcare for veterans.