

5. SERVICE DELIVERY OPTIONS

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The market-driven approach to designing Service Delivery Options (SDOs) results in the identification of three markets in VISN 12. Within each market, the Booz·Allen CARES Team crafted

SDOs that are practical for serving the veterans in that market. These markets and the projected number of enrollees for each are depicted in Exhibit 5-1. Understanding the markets and the SDOs is dependent upon understanding the principles underlying their development. These are presented in Chapter 4, Planning Principles.

Exhibit 5-1. Service Delivery Options by Market

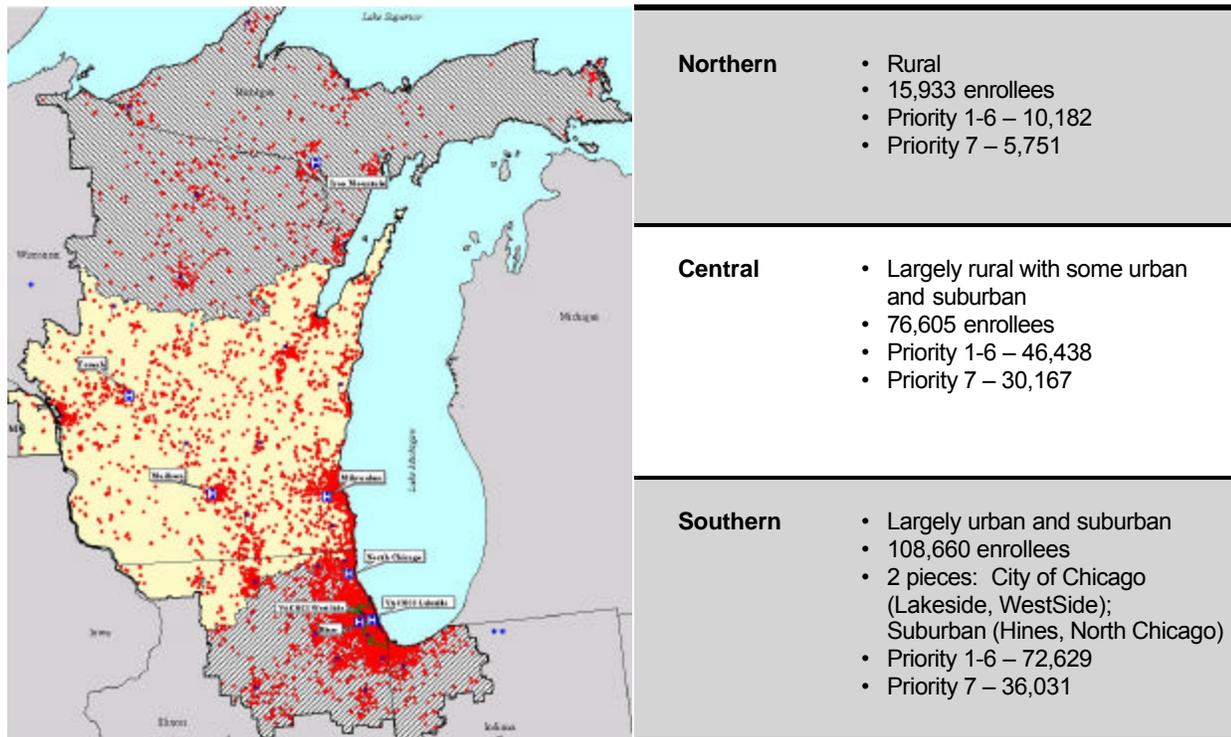
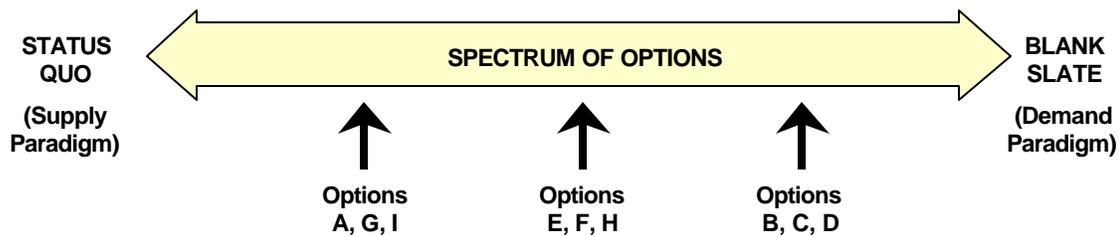


Exhibit 5-1 contains a population density map of VISN 12 and brief information about each market within VISN 12. The map illustrates where enrollees are projected to reside in FY 2010. The density dots represent enrollees in a 1-to-30 ratio. To the right of the map, a table depicting characteristics of each market also provides the total number of enrollees projected for each market and the corresponding service delivery options developed for the markets (Options A–I).

The options present a range of strategies for delivering healthcare services in FY 2010. On the possible spectrum of planning models, an options array is shown in Exhibit 5-2.

Exhibit 5-2. Spectrum of Planning Models

To provide a perspective for reviewing the SDOs, we first present information about maintaining the Status Quo (Supply) paradigm. Later in this report appears Section 5.2 on the Blank Slate (Demand) paradigm. As illustrated, the viable options lie between these two poles.

This remainder of the chapter is organized by the three markets, with sections addressing:

- A description of the market
- The strategies for meeting veterans' healthcare needs that reoccur in several SDOs
- A description of the option, designating the services planned at each facility
- A table summarizing the key concepts of the option

While the focus in developing the SDOs is on the placement of hospital facilities, the reviewer should remember that a veteran may access the VA healthcare system through primary care clinics, ambulatory care centers, and emergency rooms. The focus on the hospitals is necessary as they are major capital investments. The infrastructure necessary to support inpatient care is extensive, and the decision to invest in a hospital cannot be easily changed. The primary care clinics, on the other hand, do not need the same infrastructure—they can be sited in places that are easy for veterans to access and can be moved when the veteran population moves. Thus, while the SDOs emphasize the location of the inpatient services, each SDO does include the system of community-based outpatient clinics and specialty clinics that comprise a continuum of care.

5.1 WHILE STATUS QUO IS AN OPTION, THE IMPACT ON HEALTHCARE SERVICES DO NOT MEET VA'S EVALUATION CRITERIA.

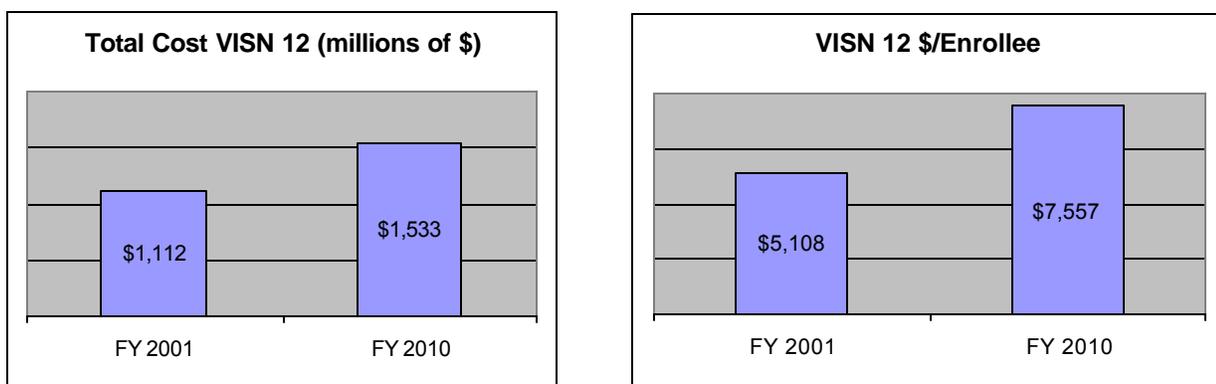
VISN 12 can continue to provide healthcare services from the facilities currently in existence. As described in Chapter 2, some of these facilities are nearing the end of their useful life and will require extensive maintenance and renovation.

To maintain the Status Quo configuration of capital assets in reasonably functional condition between now and FY 2010, the VISN will, at a minimum, need to make improvements to achieve basic standards of privacy and to address problems with code compliance for ADA and other regulations. To maintain this configuration, VISN 12 will likely spend (over the next 10 years) more than \$1.5 billion

on facilities operations and maintenance and another \$149 million (M) in nonrecurring capital building costs. It will be important to use those resources productively and wisely.

The combination of a smaller inpatient base and the shift toward outpatient care will place stress on the VISN's capital assets. Even as the veteran population and the total enrollment decline, both total costs and unit costs will rise if the status quo is maintained substantially unchanged. Booz-Allen projects that total VISN 12 costs in FY 2010 could be \$1,533M, up from a projected \$1,112M for FY 2001. The expected decline in enrollment, however, would cause the cost per enrollee to increase at a faster rate—from \$5,108 in FY 2001 to \$7,557 in FY 2010. Exhibit 5-3 shows the relationship between total costs and costs per enrollee.

Exhibit 5-3. Projected Total Costs and Costs Per Enrollee



The basic conclusion is that maintaining the FY 2001 status quo, with only incremental maintenance to assure basic standards of care and code compliance, tends to exacerbate the stresses on the VISN because the foreseeable workload demands in FY 2010 will be different in significant ways from those of FY 2001.

5.2 THE BLANK SLATE SCENARIO ALLOWS PURE DEMAND TO DRIVE FACILITY PLANNING, BUT IS NOT A VIABLE OPTION.

5.2.1 The Blank Slate Scenario

The Blank Slate Scenario is a planning paradigm that hypothesizes the following: Imagine that no VA hospitals currently exist and then, after projecting the distribution of veteran demand in FY 2010, plan new VA facilities to optimally accommodate that demand. This exercise liberates the planner from restrictions imposed by consideration of current equity and relationships as well as legislative mandates. In that sense, the Blank Slate Scenario is at the opposite extreme from the Status Quo, which is defined by current assets and relationships. While an artificial construct, the Blank Slate helps clarify the implications of a purely demand-driven approach. Furthermore, as a hypothesis, it liberates us from restrictions of cost and enables us to place new facilities in precisely the right location, even if that means building a new hospital only several miles from where a current facility actually exists.

As we evaluate each market, we look for a critical mass of enrollees to justify hospital construction. Because of economies of scale, we are unlikely to construct new hospitals that have fewer than approximately 100 beds. Based on projected hospital use rates of veterans, a population base of approximately 30,000 enrollees is required to support 75 medical/surgical beds and 25 acute psychiatric beds, or approximately 100 beds. The travel standards used are about 60 minutes and 90 minutes for routine hospital care in urban/suburban and rural areas, respectively. Where population clusters are substantially smaller than the 30,000 threshold, the Blank Slate Scenario would allow VA to leverage private sector capacity.

The Southern Market

The Southern Market is divided into two submarkets: the Chicago City Submarket, which is projected to contain approximately 43,105 enrollees in FY 2010, and the Suburban Submarket, which is projected to contain approximately 59,925 enrollees. Beyond the Suburban Submarket lies a sparsely populated area called the Suburban Collar zone, which projects 5,630 enrollees.

- **The City Submarket.** If no VA hospitals existed, we would, based on projected FY 2010 workload, plan for a single hospital of about 200 beds (no adjustment for migration). A hospital this size would be adequate to accommodate the acute medical, surgical, and psychiatric needs of the city market. We would recommend collocating a nursing home of approximately 192 beds, and a domiciliary that is approximately 200 beds.

We identified two possible locations for this facility. One would be near the current West Side facility, which is in a neighborhood of clinical need and surrounded by a reasonable density of enrolled veterans, though the density is not nearly as great as in south Chicago. The facility is about equidistant from either pole of the city in the north-south axis and is approximately at the midpoint in an east-west direction. Reasonably well supplied by public transportation, there are a number of academic institutions in that neighborhood with which it may affiliate.

The other location to consider is in south Chicago where the largest number of enrolled veterans live in the City Submarket. An area of clinical need, South Chicago has opportunities for affiliation in this area as well. One disadvantage of this location is that it is not in the geographic midpoint of the city and would require longer travel for the veterans living in the northern sectors of the City Submarket.

- **The Suburban Submarket.** If no VA hospitals existed, we would, based on FY 2010 projected workload, plan for a single hospital of about 235 beds. The dominant hospital in the Southern Market, it would accommodate the acute medical, surgical, and psychiatric needs of the Suburban Submarket, as well as the Suburban Collar Zone that lies just beyond it. We would plan to collocate a nursing home of approximately 234 beds and a domiciliary of 209 beds. We would also provide spinal cord injury (SCI), blind rehabilitation, and tertiary services at this location because this hospital would be more accessible to the rest of the VISN than the city-based hospital described above. The

hospital would also be reasonably accessible to the veterans living in the city who may need special disability or tertiary services.

We would locate this hospital approximately 5 to 10 miles west of the Hines VAMC's current location. We prefer this new location because it is closer to the web of major highways and farther from the traffic congestion that spills out of the city. This would allow easier access for veterans traveling to this tertiary care center whether they were coming from the Southern Market, elsewhere in the VISN, or outside the VISN.

We would not plan to construct an inpatient facility at North Chicago nor plan for nursing home beds there. By collocating an adequate number of nursing home beds at the city and suburban hospitals described above, we would obviate the need to build beds at North Chicago. North Chicago is, however, a reasonable location for a multi-specialty ambulatory care clinic.

The Central Market

The Central Market is comprised mostly of the state of Wisconsin. Other than the greater Milwaukee and Madison areas, it is largely a rural region. We have divided the Central Market into five submarkets. However, the boundaries of some submarkets were influenced in part by VAMCs, which would not have existed in the Blank Slate Scenario. These submarkets appear below:

- **The Madison Submarket.** The City of Madison is the population center around which we constructed a 90- to 120-minute travel time radius to create a quasi-circular submarket. That circle is flattened where it abuts the adjacent Milwaukee Submarket, and there its radius is only about 40 miles. Despite the expansive area, this submarket is projected to include about 18,000 enrollees in FY 2010, far below the 30,000 threshold required to justify a 100-bed hospital. Even adding workload from the Tomah/La Crosse Submarket and the Wisconsin Rapids Submarket, the enrollees would not approach the required threshold.

Our conclusion is that if no VA hospitals existed when planning for FY 2010, we would not build a VA hospital facility at Madison. Instead, the VA facility at Milwaukee proposed below would accommodate that workload and the private sector would be leveraged to accommodate the rest. In leveraging private sector capacity, however, our objective would be to find a partner from whom we could lease a ward or floor, since we would have the workload to justify that level of commitment. An academic partner would be desirable.

- **The Tomah/La Crosse, Wisconsin Rapids, and Green Bay Submarkets.** The Tomah/La Crosse Submarket is constructed around the population center of La Crosse and happens to include Tomah. It is projected to be home to about 8,000 enrollees. This enrollee level clearly falls far below the threshold for hospital construction, and we would not build a hospital in Tomah if we were starting with a "Blank Slate."

The same holds true for the Wisconsin Rapids and Green Bay Submarkets, which are projected to include 3,370 and 11,370 enrollees, respectively, in FY 2010. Again, one could consider leveraging resources in the private sector.

- **The Milwaukee Submarket.** The Milwaukee Submarket is currently shaped like an upright elongated rectangle extending from just below the Wisconsin state border in the south, to Manitowoc in the north. It is flanked by the Madison Submarket on the west. But, if we were not planning to build Madison as suggested above, the Milwaukee Submarket would protrude westward to approach the City of Madison and incorporate the workload in that area. We estimate that Milwaukee's number of enrollees would increase from the currently projected 34,000 to approximately 45,000.

Therefore, if no VA hospitals currently existed, we would, based on FY 2010 workload, plan to build a single hospital at Milwaukee with about 150 beds. This number would be sufficient to accommodate the medical, surgical, and psychiatric needs of the submarket, as well as the SCI needs of Central Market and northern regions. We would recommend collocating a nursing home of 275 beds and a domiciliary of 171 beds.

The Northern Market

The Northern Market, which is comprised mainly of Michigan's northern peninsula, is rural, large, and sparsely populated. It is projected to be home to approximately 16,000 enrollees in FY 2010, compared to 77,000 in the Central Market and 109,000 in the Southern Market. We have divided the Northern Market into six submarkets, which correspond to small population clusters. These clusters are also associated with private sector healthcare capacity that is within 60 to 90 minutes from the boundaries of the submarket.

If no VA hospital existed in the Northern Market, we would not plan to build one when planning for FY 2010. With only 16,000 enrollees spread over such an expansive area, it is impossible to reach the necessary critical mass of enrollees in any 90- to 120-minute radius to justify new hospital construction.

Conclusion

If we had a "Blank Slate" and were planning for FY 2010, a purely demand-driven analysis would justify building three hospitals in the Chicago City Submarket—one possibly near the West Side, a larger one in the Suburban Submarket not far from Hines, and another in Milwaukee. These would be the only facilities in the VISN accompanied by collocated domiciliaries and large nursing homes. Leveraging private sector capacity becomes an important Blank Slate strategy where veteran demand does not justify new construction.

Of course, however, we do not have a Blank Slate. VA has, over the years, built up equity and relationships with a considerable amount of value. The options presented in the remainder of this chapter balance the demand created by the veteran population with the existing equity to address the healthcare issues in each market.

5.3 THE CAPITAL PLANNING DECISION IN THE SOUTHERN MARKET IS HOW BEST TO UTILIZE EXISTING FACILITIES WHEN 155 TO 190 ACUTE BEDS ARE NEEDED INSIDE THE CITY LIMITS OF CHICAGO TO MEET VETERANS' HEALTHCARE NEEDS.

Market Description

The Southern Market of VISN 12 includes much of the northern tip of Illinois and part of northwest Indiana (see Map 6, VISN 12: Southern Market). The Southern Market is divided into two submarkets: the City of Chicago proper, whose boundary is defined by the ZIP code 606, and the suburban submarket that envelopes the city and whose outer boundary is defined by a distance approximately 60 to 75 minutes from the Hines VAMC. Just beyond the Suburban Submarket there is a Suburban Collar Zone that is sparsely populated and too distant to be included in the Suburban Submarket. The two principal submarkets are configured in a way that 94.5 percent of Southern Market enrollees are within approximately one hour of acute inpatient services and specialty ambulatory services. In FY 2010, the City Submarket is projected to be home to 43,105 enrollees, and the Suburban Submarket home to 65,555 enrollees.

Southern Market Options

Overview. We have developed four service delivery options for the Southern Market: Options A, B, C, and D. We will provide a brief overview of all four and later in this report describe each in greater detail. In these four options the major changes involve Lakeside and West Side since the principal challenge in the Southern Market is to develop a strategy to efficiently serve the City Submarket. Projected demand in the Chicago City Submarket, adjusted for migration, suggests that 155 to 190 acute beds would be sufficient, and that two hospitals of the current size will not be necessary. Four different solutions to this challenge are offered. The approaches to Hines and North Chicago remain relatively constant in all four options. First, we will summarize the most common recurring approaches in these four options. Then, we will delve into each option and present the rationale behind the approaches to each major facility and submarket.

Recurring Strategies in the Southern Market. Our goal is, as much as possible, to leverage current assets in the service of future veteran demand. Not surprisingly, there are some recurring strategies to achieve that goal. Prior to describing the options individually, we must first identify the recurring elements of all four options:

- Hines is the largest facility in the Southern Market with the broadest array of tertiary and special disability services. The spectrum of services is similar to those provided today.
- North Chicago's inpatient mission would primarily focus, as it does today, on long-term care. VA/DoD sharing of acute care capability is proposed in all four options.
- Some form of an Enhanced Use arrangement is proposed for Lakeside. In Options B and D, Lakeside discontinues inpatient care. In the other options, A and C, Lakeside maintains inpatient care in a new facility.

- West Side maintains some form of inpatient service. In Options A, B, and D, West Side maintains medicine, surgery, and psychiatry services in varying capacities. In Option C, West Side maintains psychiatry only.
- All four sites maintain a robust multispecialty ambulatory care service.
- Significant facility upgrades include a new blind rehabilitation center.

5.3.1 Option A requires constructing one small VA hospital, and through an Enhanced Use arrangement, leasing medical/surgical inpatient beds in the City of Chicago.

Demand projections adjusted for migration suggest that approximately 155 to 190 acute care beds will be required to serve the Chicago City Submarket in FY 2010. This objective can be achieved with a single hospital. In this option we can construct a small hospital and lease the additional needed beds through an Enhanced Use (EU) arrangement.

Specifically, we propose to construct a two-floor, 98-bed acute care facility above the West Side Ambulatory Care Center. This facility would provide approximately 43 medical, 15 surgical, and 40 acute psychiatric beds. Building 1 of the main West Side Hospital is closed and mothballed while an EU partner is sought for redevelopment of the site. The Lakeside property, through an EU agreement, is appropriated by Northwestern Memorial Hospital (NMH), which will demolish the current structure and build a new hospital on that site. VA will lease back 79 medical and surgical beds, as well as space for ambulatory care. Hines provides 205 acute beds on a 709-bed campus, and North Chicago provides 27 acute medical beds on a 598-bed campus, as it does in all four options in the Southern Market. Both Hines and North Chicago provide at least the same spectrum of services, including special disability services as they do today. All four sites continue to supply extensive ambulatory services.

Description and Discussion by Facility

- **Lakeside.** The Lakeside VAMC is the companion hospital to the West Side VAMC in the VA Chicago Health Care System. While Lakeside is not located in a densely populated veteran community, nor in a community with great clinical needs generated by that environment, it is readily accessible to city-dwelling veterans by mass transit. The Lakeside VAMC is currently located across the street from NMH and the two facilities are connected by a bridge. NMH is planning to construct a new hospital and has expressed interest in the property currently occupied by the Lakeside VAMC. In this option, this property would become available to NMH, or another bidder, through outright sale or an Enhanced Use lease agreement. If NMH acquired the property, the Lakeside VAMC would be demolished, a new hospital built on that site, and VA would lease back 79 beds for medical and surgical services. The objective would be to have a dedicated VA floor(s), and a dedicated entrance for veterans. Veterans would have access to the tertiary care resources at NMH. Parking, research space, office space, and ambulatory care space sufficient for 235,680 clinic stops would also be provided. The lease should allow VA to

The Southern Market – Option A

adjust beds to demand over time, providing an enhanced measure of flexibility and scalability. The Enhanced Use/lease-back arrangement is expected to yield a \$13.5M annual savings in operations and maintenance costs. The affiliation with Northwestern University is maintained, though the number of training slots at this facility is reduced. These training positions could be accommodated at Hines, which increases its allocation of acute beds.

Option A is contingent on negotiating a successful arrangement with Northwestern Memorial Hospital. If no agreement could be reached and no other hospital could be enticed, this would not be a feasible option. Options B or D offer alternate choices because even though both of these options incorporate Enhanced Use or sale of the Lakeside property, neither is specifically contingent on participation by Northwestern Memorial or another healthcare entity.

- **West Side.** In contrast to Lakeside, West Side is located in a community of clinical need. The current facility is old and in need of significant renovation. Furthermore, it is constructed with a dated design that is not optimally configured for efficient staffing or care. The new West Side Ambulatory Center, located on the same campus, was constructed in such a way that two additional floors can be added with minimal architectural disruption. In this option, we propose building two inpatient floors above the Ambulatory Care Center to accommodate 98 acute medical, surgical, and psychiatric beds, as well as four operating rooms. This facility will have a “race track” design more conducive to efficient staffing and care. The estimated cost of construction is \$19.8M yielding a new, small hospital with an efficient and modern environment of care.

Building 1, the main West Side Hospital, is closed and the patient care areas mothballed while an Enhanced Use partner is sought for redevelopment of the site. The remaining square footage in Building 1 will be used to provide support services and offices. Over time, these operations may be adjusted with the goal of completely vacating Building 1. For example, Hines may supply laundry and food services as well as laboratory support. The hospital will maintain its affiliation with the University of Illinois is maintained.

West Side would continue to provide a full spectrum of multispecialty ambulatory care services at its ambulatory care center, including ambulatory surgery, mental health services, and substance abuse treatment, including methadone maintenance. Approximately 552,153 clinic stops and 107,421 dental composite time values (CTVs) are projected.

- **Hines.** In Options A through D, the Hines VAMC is consistently configured as the largest hospital in the Southern Market with the broadest array of tertiary services for a number of reasons. First, the Suburban Submarket that Hines serves is projected to have a greater workload and a greater need for beds than the City Submarket served by Lakeside or West Side. Historical migration patterns further augment the projected workload. Second, because Hines is situated outside the city, it is more accessible to veterans living in other parts of the VISN and outside the VISN, who may use Hines for tertiary services and certain special disability services like SCI and blind rehabilitation. At the same time, it is

reasonably accessible to the veterans living inside the city who may also require these same services. Third, compared to Lakeside and West Side, Hines is architecturally configured in a way that is more conducive to providing a spectrum of tertiary and high tech services with less need for structural renovation. Finally, the large campus, which will revert to the Hines family if not used by VA, has substantial capacity that can be tapped in the future if need arises. Maintaining this inventory of capacity contributes to the scalability and flexibility necessary to respond to some of the contingencies that are identified in the sensitivity analysis.

Though structurally sound, Hines will require significant renovation for qualification under JCAHO and ADA standards because of a significant number of privacy and other “nonstructural” issues—a common theme among the VISN 12 facilities.

In this option, Hines is specifically configured to provide 205 acute beds including 121 medical beds, 54 surgical beds, and 30 acute psychiatry beds. Hines will provide 68 acute SCI beds, which will be renovated, and 30 long-term SCI residential care facility (RCF) beds. A new 34-bed blind rehabilitation center will be built to provide required upgrades and an improved environment of care. Hines will also provide 238 nursing home beds and 39 hospital-based residential rehabilitation beds. It is often preferable to provide these residential rehabilitation beds in a community setting. However, it has sometimes been difficult to gain acceptance for these programs in local neighborhoods. Nonetheless, if these beds could be located in the community it would provide Hines with additional acute capacity. To meet the projected demand for domiciliary beds, an additional 75 beds will be created in Building 1. Approximately 30 of these beds would be designated for additional residential rehabilitation services. It would be optimal to renovate this building in such a way that these domiciliary beds may be adapted to assisted living-like functions as the population ages.

An extensive array of ambulatory services will be offered at Hines, including services pertaining to SCI, blind rehabilitation, and other special disability populations currently receiving care at this site. Ambulatory surgery will also continue. The total number of facility-based clinic stops in FY 2010 is projected to be approximately 641,793. Hines will also accommodate 143,320 dental composite time values (CTV).

- **North Chicago.** North Chicago is an important repository of long-term care beds that is strategically located between the major population centers in the VISN, Chicago, and Milwaukee. Its role in providing nursing home care beds for both the Southern and nearby Central Markets will become even more important as the population ages.

Another unique feature of North Chicago is its proximity to the Great Lakes Naval Training Facility. The nearby Naval Hospital is in need of extensive renovation, and some consideration has been given to building a new Naval Hospital. With four empty acute wards and a state-of-the-art intensive care unit (ICU) at the North Chicago VAMC, an opportunity exists for VA and DoD to share this underutilized acute care resource. Therefore, in Option A, as in all the options in the Southern Market, a sharing agreement

The Southern Market – Option A

between VA and DoD is proposed. If that agreement were reached, the acute medical and surgical workload provided by the Navy, currently estimated to be about two wards or 60 patients, when added to the VA acute care workload, would provide a critical mass of acute care beds sufficient to justify ongoing acute inpatient care. Exactly how the acute workload would be divided and cared for would be a subject of negotiation and implementation.

Even if a VA/DoD sharing agreement is not reached, all four options propose keeping a small acute medical service. With approximately 248 nursing home beds and approximately 100 psychiatric beds, an ongoing need for acute medical beds will be needed to accommodate those long-term care patients who “decompensate.” Given the size of this campus and spectrum of services, the incremental cost of these added acute beds is relatively small and clinically appropriate. This option also preserves the affiliation with Chicago Medical School.

If a DoD-sharing agreement should fail, North Chicago could use the four empty acute wards to provide additional nursing home beds to the VISN. North Chicago could also lease some of the acute space to the Illinois Department of Veterans Affairs for their nursing home needs, a proposal that is currently under consideration.

Specifically, Option A allocates, as do all the options in the Southern Market (A–D), the following beds to North Chicago: 27 acute medical beds, 248 nursing home care beds, 67 long-term psychiatry beds, 30 acute psychiatry beds, and 186 domiciliary beds. While generally in good condition, this facility will require some renovation.

North Chicago’s long-term care capacity may also be increased through Enhanced Use arrangements. North Chicago may prove an attractive location for a private contractor to co-venture with VA. We propose two possible Enhanced Use ventures: a nursing home and/or an assisted living facility. While we consider these proposals worthy of further study, at this point they are speculative, and we have not included them in our analysis of cost and potential revenue.

Ambulatory services will continue in much the same way. However, if a DoD-sharing agreement is reached, the spectrum of ambulatory surgery procedures available to veterans is likely to be enhanced. In FY 2010, projected are 385,572 facility-based clinic stops and 45,528 dental CTVs.

OPTION A—SUMMARY

- A 98-bed inpatient medical, surgical, and psychiatric facility is built atop the West Side Ambulatory Care Center. The current West Side Hospital is closed.
- The Lakeside property is acquired by NMH in an Enhanced Use agreement, Lakeside VAMC is demolished, and a new NMH hospital is built with a separate VA floor and entrance. VA leases back 79 acute medical/surgical beds.
- Hines is renovated; a new blind rehabilitation center is built and maintains mission, although somewhat larger.
- North Chicago is renovated; DoD sharing is somewhat larger.
- All four sites continue providing an extensive array of multispecialty ambulatory care services.

SOUTHERN MARKET		Inpatient					Extended Care					Bed Total	Contract Beds	VA Beds
Sub Market	Inpatient Service Site	Medical	Surgical	Acute Psych	SCI	Blind Rehab	RRTP	DOM	SCI RCF	Long-term Psych	NHCU			
Chicago City	West Side VAMC	43	15	40								98		98
	Lakeside VAMC	43	36									79		79
Chicago Suburban	Hines VAMC	121	54	30	68	34	59	75	30		238	709		709
	North Chicago	27		30			40	186		67	248	598		598
	Service Totals	234	105	100	68	34	99	261	30	67	486	1484	0	1484
Subtotal	Cat. 1-6	221	99	96	65	32	97	249	28	65	466	1418		1418
	Cat. 7	13	6	4	3	2	2	13	2	2	19	66		66
Market Total		541					943					1484		1484

Scalability

This option has the ability to adapt to unpredictable events that cause large increases or decreases in acute workload. Therefore, along with Option D, it is one of the two most scalable options. Because of the extra acute bed capacity that could be generated at Hines through renovation, this option, like all options in the Southern Market, could respond well to increased demand (upward scalability). Additional upward scalability would permit additional beds to be leased if necessary because of the Enhanced Use arrangement with NMH. Because Option A “right-sizes” services in the City Market compared to the status quo, it is less vulnerable to decreases in demand than is the status quo. Additionally, because of the Enhanced Use agreement with NMH, this option can further adjust the number of leased beds in a downward direction if there is further reduction in demand (downward scalability) (see Chapter 8, Sensitivity Analysis, Section 8.1).

Feasibility

Below we briefly summarize selected issues that may affect the feasibility of Option A.

- A proposed sharing agreement between North Chicago and the Great Lakes Naval Hospital (GLNH) can be negotiated locally. Minimal intervention by VA Headquarters will be needed other than support and approval of a final proposal.
- This option proposes negotiation of an Enhanced Use lease agreement with NMH. Northwestern University has expressed interest in acquiring the land and building a replacement facility as the Lakeside site. Implementation of the option is dependent on a successfully negotiated lease.

The Southern Market – Option A

- The Option A proposal will require considerable advanced planning and coordination to prepare for interruptions that will occur during construction of a replacement hospital at Lakeside. Swing space for patient care and relocation plans for patients, employees, and trainees will need to be coordinated.

Portfolio Level Impacts

Exhibit 5-4 briefly summarizes the impacts of Option A on VA’s capital asset portfolio in the Southern Market.

Exhibit 5-4. Portfolio Level Impacts of Option A

FACILITY	REALIGNMENT OF MISSION/UTILIZATION		
	CURRENT	PROPOSED	IMPACT ON CAPITAL ASSETS
VA CHCS— West Side	<ul style="list-style-type: none"> • Acute Medicine, Surgery and Psychiatry • Residential Rehab • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • Acute Medicine, Surgery and Psychiatry • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • New construction of two floors above the ambulatory care clinics (Building 30) • Building 1 is closed, mothballed, and targeted for EU or disposal opportunities
VA CHCS— Lakeside	<ul style="list-style-type: none"> • Acute Medicine and Surgical Services • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • Acute Medicine and Surgical Services • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • EU lease of entire Lakeside Hospital • Lease back 79 acute beds and ACC
Hines	<ul style="list-style-type: none"> • Acute Medicine, Surgery and Psychiatry • SCI • Blind Rehab • Residential Rehab • Nursing Home Care • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • Acute Medicine, Surgery and Psychiatry • SCI • Blind Rehab • Residential Rehab • Nursing Home Care • Domiciliary • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • Renovation of acute care space in main hospital (Building 200), including SCI ward to meet new demand and current space standards • Renovation of portions of Building 1 to house 75 domiciliary beds and relocation of any displaced services/missions • Construction of a new blind rehabilitation facility to upgrade to current space standards; demolish Buildings 12 and 13 • EU outleasing of two underutilized parcels of land
North Chicago	<ul style="list-style-type: none"> • Acute Medicine and Psychiatry • Residential Rehab • Domiciliary • Long-Term Psychiatry • Nursing Home Care • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • Acute medicine beds (27) preserved through DoD Sharing • Acute Psychiatry • Residential Rehab • Domiciliary • Long-Term Psychiatry • Nursing Home Care • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • Operation of inpatient wards turned over to DoD • Renovation of acute psych wards (Building 133CA) • Renovation of nursing home care and long-term psych wards (Buildings 131 & 134) • EU lease of real property to NTC Great Lakes for base expansion

5.3.2 Option B places a single hospital directly in a community of considerable need in the Chicago City.

Demand projections adjusted for migration suggest that approximately 155 to 190 acute care beds will be required to serve the Chicago City Submarket in FY 2010. This objective can be achieved with a single hospital. In this option we designate the West Side VAMC as that hospital.

In Option B, the main West Side Hospital, or Building 1, would undergo significant renovation to yield a structure with a capacity of 201 beds that would serve the needs within the Chicago City boundaries. Of these, 157 beds would be devoted to acute medical, surgical, and psychiatric care, and 20 beds to residential rehabilitation. Lakeside inpatient services would be discontinued, and the Lakeside property would be available for sale or Enhanced Use to Northwestern Memorial Hospital or another entity. In any negotiated sale or EU arrangement, there must be a provision that ambulatory services would remain on or near Lakeside with sufficient capacity to accommodate 229,749 clinic stops in FY 2010. Hines would provide 225 acute beds on a 709-bed campus with a similar spectrum of services as today, including special disabilities and a new blind rehabilitation center. North Chicago would provide 27 acute medical beds on a 598-bed campus with a similar spectrum of services as today. All four sites would continue to provide extensive ambulatory services.

Description and Discussion by Facility

- **West Side.** The West Side VAMC and the Lakeside VAMC are the two hospitals that constitute the VA Chicago Health Care System. West Side is located in a community of clinical need. In this option, the West Side facility becomes the single facility serving the routine hospital needs of veterans living in the submarket defined by Chicago City. This rationale is supported by the substantially greater veteran population density projected to reside in a one-hour travel radius around West Side, compared to the one-hour radius encircling Lakeside.

To adequately serve the City Submarket, however, the West Side Hospital will require significant renovation to raise its current standards. As is often the case, renovation to enhance compliance with the ADA and other standards reduces the number of beds. We considered building a new hospital on this site; however, the cost is substantially more than renovating the current facility. The cost of renovating the current hospital is estimated to be \$16.2M.

In Option B, 79 medical, 38 surgical, and 40 inpatient psychiatric beds are allocated to West Side. This allocation was dictated by a projected demand in this market, with minor modification for historical migration patterns. With an additional 20 residential rehabilitation beds also provided, it is often preferable to provide these beds in a community setting. However, the difficulty sometimes lies in gaining acceptance for these programs in local neighborhoods. Nonetheless, if these beds could be located in the community, it would provide West Side with additional acute capacity.

The Southern Market – Option B

West Side would continue to provide a full spectrum of multispecialty ambulatory care services at its ambulatory care center as previously described in Option A. There is projected demand for 552,153 facility-based clinic stops, and 107,421 dental CTVs.

- **Lakeside.** Lakeside is not located in a densely populated veteran community, nor in a community with great clinical need. However, it is readily accessible by mass transit and through its physical attachment to Northwestern Memorial Hospital, it offers veterans a broad range of tertiary-type services. Regardless, Lakeside discontinues inpatient services in Option B.

As noted in Option A, NMH has expressed interest in the property currently occupied by the Lakeside VAMC. In this option, this property would become available to Northwestern, or another bidder, through outright sale or an Enhanced Use arrangement.

Ambulatory services would continue at or near the current Lakeside property. Consequently, any sale or Enhanced Use arrangement would have to provide for a multispecialty ambulatory care center at or near the current Lakeside location.

- **Hines.** In this option, Hines is specifically configured to provide 225 acute beds including 128 medical beds, 67 surgical beds, and 30 acute psychiatry beds. Hines will continue to provide 68 acute SCI beds and 30 long-term SCI RCF beds. Hines will also provide 238 nursing home beds and 39 hospital-based residential rehabilitation beds. Where possible, this residential rehabilitation service should be shifted to a community-based environment. To meet the projected demand for domiciliary beds, an additional 75 beds will be created in Building 1. Approximately 30 of these beds would be designated for additional residential rehabilitation services. It would be optimal to renovate this building in such a way that these domiciliary beds may be adaptable to assisted living-like functions as the population ages.

An extensive array of ambulatory services will be offered at Hines, including services pertaining to SCI, blind rehabilitation, and other special disability populations currently receiving care at this site. Ambulatory surgery will continue and the total number of facility-based clinic stops in FY 2010 is projected to be approximately 641,793. Dental CTVs are projected to be 143,320.

- **North Chicago.** In Option B, as in all options in the Southern Market (A-D), a VA-DoD sharing agreement is proposed. And, as in all Southern Market options, North Chicago provides 27 acute care beds, 248 nursing home care beds, 67 long-term psychiatry beds, and 186 domiciliary beds. While generally in good condition, this VAMC will require some renovation.

North Chicago's long-term care capacity may also be increased through Enhanced Use arrangements. We propose two possible Enhanced Use ventures: a nursing home and/or an assisted living facility. While we consider these proposals worthy of further study, at this point they are highly speculative, and we have not included them in our analysis of cost and potential revenue.

Ambulatory services will continue in much the same way. However, if a VA/DoD sharing agreement is reached, an enhanced spectrum of ambulatory surgical procedures is likely to be available. Approximately 385,572 facility-based clinic stops and 45,528 dental CTVs are projected.

OPTION B—SUMMARY

- West Side is renovated and serves as the single inpatient facility for Chicago (177 beds).
- Lakeside inpatient services are discontinued. The property is sold or used in an Enhanced Use arrangement.
- Hines is renovated; a new blind rehabilitation is built and maintains its mission, although somewhat larger.
- North Chicago is renovated; DoD sharing, somewhat larger.
- All four sites continue providing an extensive array of multi-specialty ambulatory care services.

SOUTHERN MARKET		Inpatient					Extended Care					Bed Total	Contract Beds	VA Beds
Sub Market	Inpatient Service Site	Medical	Surgical	Acute Psych	SCI	Blind Rehab	R RTP	DOM	SCI RCF	Long-term Psych	NHCU			
Chicago City	West Side VAMC	79	38	40			20					177		177
	Lakeside VAMC											0		0
Chicago Suburban	Hines VAMC	128	67	30	68	34	39	75	30		238	709		709
	North Chicago	27		30			40	186		67	248	598		598
Service Totals		234	105	100	68	34	99	261	30	67	486	1484	0	1484
Subtotal	Cat. 1-6	221	99	96	65	32	97	249	28	65	466	1418		1418
	Cat. 7	13	6	4	3	2	2	13	2	2	19	66		66
Market Total		541					943					1484		1484

Scalability

This option has the ability to adapt to unpredictable events that cause large increases in acute workload. However, its ability to respond to large reductions in workload is limited compared to Options A and C. Because of the extra acute bed capacity that could be generated at Hines through renovation, this option, like all options in the Southern Market, could respond well to increased demand (upward scalability). And, because it “right-sizes” services in the City Market compared with the Status Quo, it is less vulnerable to decreases in demand than is the Status Quo. However, this option cannot further adjust in a downward direction because there is no private sector contracting or Enhanced Use lease-back provision for acute beds (no downward scalability) (see Chapter 8 Sensitivity Analysis, Section 8.1).

Feasibility

Below we briefly summarize selected issues that may affect the feasibility of Option B.

- In this option the Lakeside inpatient facility is closed because total projected demand for acute beds is distributed to the West Side and Hines facilities, which have the capacity to handle the workload. There is no need to lease back acute beds at “Lakeside/ Option A, so this option is not contingent on negotiating an Enhanced Use lease agreement.
- A proposed sharing agreement between GLNH and the North Chicago VAMC can be negotiated locally with little intervention by VA Headquarters other than support and approval of a final proposal.

The Southern Market – Option B

- Closure of the Lakeside inpatient facility will require Northwestern residents to go elsewhere for training. This option will have significant impacts on the affiliation between VA and Northwestern Medical School.

Portfolio Level Impacts

Exhibit 5-5 briefly summarizes the impacts of Option B on VA’s capital asset portfolio in the Southern Market.

Exhibit 5-5. Portfolio Level Impacts of Option B

FACILITY	REALIGNMENT OF MISSION/UTILIZATION		
	CURRENT	PROPOSED	IMPACT ON CAPITAL ASSETS
VA CHCS— West Side	<ul style="list-style-type: none"> • Acute Medicine, Surgery and Psychiatry • Residential Rehab • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • Acute Medicine, Surgery and Psychiatry • Residential Rehab • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • Building 1 is renovated to accommodate 177-bed inpatient and residential rehab missions
VA CHCS— Lakeside	<ul style="list-style-type: none"> • Acute Medicine and Surgical Services • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • EU lease of entire Lakeside Hospital • Lease back space for ACC
Hines	<ul style="list-style-type: none"> • Acute Medicine, Surgery and Psychiatry • SCI • Blind Rehab • Residential Rehab • Nursing Home Care • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • Acute Medicine, Surgery and Psychiatry • SCI • Blind Rehab • Residential Rehab • Nursing Home Care • Domiciliary • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • Renovation of acute care space in main hospital (Building 200), including SCI ward to meet new demand and current space standards • Renovation of portions of Building 1 to house 75 domiciliary beds and relocation of any displaced services/missions • Construction of a new blind rehabilitation facility to upgrade to current space standards; demolish Buildings 12 and 13 • EU outleasing of two underutilized parcels of land
North Chicago	<ul style="list-style-type: none"> • Acute Medicine and Psychiatry • Residential Rehab • Domiciliary • Long-Term Psychiatry • Nursing Home Care • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • Acute medicine beds (27) preserved through DoD Sharing • Acute Psychiatry • Residential Rehab • Domiciliary • Long-Term Psychiatry • Nursing Home Care • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • Operation of inpatient wards turned over to DoD • Renovation of acute psych wards (Building 133CA) • Renovation of nursing home care and long-term psych wards (Buildings 131 & 134) • EU lease of real property to NTC Great Lakes for base expansion

5.3.3 Option C provides medical/surgical inpatient care in the City of Chicago through an Enhanced Use arrangement that permits VA to lease back beds.

Demand projections adjusted for migration suggest that approximately 155 to 190 acute care beds will be required to serve the City Chicago Submarket in FY 2010. In this option, that demand is accommodated through an Enhanced Use arrangement with Northwestern Memorial Hospital to provide 128 medical/surgical beds, and a small new psychiatric facility at West Side to provide acute psychiatric beds.

Option C relies on an Enhanced Use arrangement with NMH, which plans for the construction of a new hospital on the current Lakeside property. VA then leases back 128 acute medical and surgical beds. A 60-bed inpatient mental health facility is built above the West Side Ambulatory Care Center to serve the acute mental health needs of the Chicago City Submarket. Building 1 of the current West Side Hospital has closed and inpatient areas are mothballed. Hines provides 214 acute beds on a 698-bed campus, and North Chicago provides 27 beds on a 598-bed campus, as it does in all four options in the Southern Market. Both Hines and North Chicago provide at least the same spectrum of services as they do today. All four sites continue to supply extensive ambulatory services.

Description and Discussion by Facility

- **Lakeside VAMC.** Lakeside is not located in a densely populated veteran community, or in a community with great clinical need. However, it is readily accessible to city-dwelling veterans by mass transit. NMH is across the street from the Lakeside VA hospital, and the two facilities are connected by a bridge. NMH is planning to construct a new hospital and has expressed interest in the property currently occupied by the Lakeside VAMC. In Option C, this property would become available to NMH, or another bidder, through outright sale or an Enhanced Use agreement. If NMH acquires the property, the Lakeside VA would be demolished, a new hospital built on that site, and VA would lease back 128 beds for medical and surgical services in the new facility. (This number is greater than the 79 beds proposed in Option A, because in Option C they are the city's sole source of VA medical/surgical beds.)

The objective is to have a dedicated VA floor(s) and a dedicated entrance for veterans. Parking and space for research, offices, and ambulatory care would also be provided. Veterans would have access to the tertiary resources at NMH. The lease should allow VA to adjust beds to demand over time, providing an enhanced measure of flexibility and scalability. The Enhanced Use/lease-back arrangement is expected to yield a \$13.5M annual savings in operations and maintenance costs. An affiliation with Northwestern University is maintained.

Ambulatory services will continue and 235,680 clinic stops and 21,146 CTVs are projected for FY 2010.

This specific arrangement is contingent on negotiating successfully with Northwestern Memorial Hospital. If no agreement can be reached and no other hospital can be enticed,

The Southern Market – Option C

this option would not be feasible. Options B or D would remain feasible because even though they incorporate Enhanced Use or sale of the Lakeside property, neither is specifically contingent on participation by Northwestern Memorial Hospital or any other healthcare entity.

- **West Side.** In Option C, a psychiatric inpatient facility accommodating 60 patients would be constructed atop the West Side Ambulatory Care Center. The current West Side hospital is closed and mothballed, except for a portion dedicated to support services.

We chose not to consolidate psychiatric services at the Lakeside location for three reasons:

- West Side currently has a very active and well-established psychiatric and substance abuse service.
- West Side is in a community with extensive clinical needs; therefore, it is important that acute psychiatric and substance abuse services be close and accessible. While the same can be said of medical patients, it can be even more challenging at times to transfer psychiatric patients for inpatient admission.
- It is likely that the Enhanced Use arrangement at Lakeside would have difficulty accommodating an additional 60 patients.

West Side will continue to provide extensive multispecialty ambulatory services, including methadone maintenance and ambulatory surgery. The projected number of clinic stops in FY 2010 is 552,153. The projected dental CTVs are at 107,421.

- **Hines VAMC.** In Option C, as in all the options in the Southern Market (A-D), Hines is the largest facility with the broadest array of tertiary and special disability services. In this option, Hines is allocated 214 beds on a 698-bed campus. The small change in acute beds between Options A, B, and C is caused by a slight alteration of the historical migration pattern depending on whether Lakeside or West Side is the single hospital serving the City of Chicago. As in the other options, Hines supplies 68 acute and 30 long-term SCI beds, 34 blind rehabilitation beds in a new blind rehabilitation center, 238 nursing home beds, and 39 hospital-based residential rehabilitation beds. As in all of the options in the Southern Market, Option C proposes creating 75 domiciliary beds, of which 30 will be devoted to residential rehabilitation.
- **North Chicago.** North Chicago remains essentially the same in Options A through D. So in Option C, as previously noted in Options A and B, North Chicago is a 598-bed campus focused largely on nursing home care, domiciliary care, long-term psychiatric care, acute psychiatric care, and residential rehabilitation services. In this option, as in the others, we propose that VA and DoD share the resources of the acute care hospital, allocating 27 medical beds to the VA. An opportunity exists for Enhanced Use leasing for nursing home beds and an assisted living facility.

OPTION C—SUMMARY

- The Lakeside property is acquired by NMH in an Enhanced Use agreement; Lakeside VAMC is demolished; and a new NMH hospital is built with a separate VA floor and entrance. VA leases back 128 acute medical/surgical beds.
- A 60-bed inpatient psychiatry unit is built atop the West Side Ambulatory Care Center. The current West Side hospital is closed and inpatient surgery and medicine are discontinued.
- Hines is renovated; a new blind rehabilitation center is built and maintains mission, although somewhat larger.
- North Chicago is renovated; DoD sharing, somewhat larger.
- All four sites continue providing an extensive array of multispecialty ambulatory care services.

SOUTHERN MARKET		Inpatient					Extended Care					Bed Total	Contract Beds	VA Beds
Submarket	Inpatient Service Site	Medical	Surgical	Acute Psych	SCI	Blind Rehab	RRTP	DOM	SCI RCF	Long-term Psych	NHCU			
City	West Side VAMC			40			20					60		60
	Lakeside VAMC	79	49									128		128
Suburban	Hines VAMC	128	56	30	68	34	39	75	30		238	698		698
	North Chicago	27		30			40	186		67	248	598		598
	Service Totals	234	105	100	68	34	99	261	30	67	486	1484		1484
Subtotal	Cat. 1-6	221	99	96	65	32	97	249	28	65	466	1418		1418
	Cat. 7	13	6	4	3	2	2	13	2	2	19	66		66
	Market Total	541					943				1484			1484

Scalability

This option has the ability to adapt to unpredictable events that cause large increases or decreases acute workload. Therefore, along with Option A, it is one of the two most scalable options and it has the most downward scalability of all Southern Market Options. Because of the extra acute bed capacity that could be generated at Hines through renovation, this option, like all options in the Southern Market, could respond well to increased demand (upward scalability). There is additional upward scalability because of the Enhanced Use lease-back arrangement with NMH. This would permit additional beds to be leased if necessary. Because Option C right-sizes services in the city market compared to the Status Quo, it is less vulnerable to decreases in demand than is the Status Quo. Additionally, because of the Enhanced Use agreement with NMH, this option can significantly adjust the number of leased beds in a downward direction if there is further reduction in demand (significant downward scalability) (see Chapter 8 on Sensitivity Analysis).

Feasibility

Below we briefly summarize selected issues that may affect the feasibility of Option C.

- This option proposes negotiation of an Enhanced Use lease agreement with Northwestern Memorial Hospital. NMH has expressed interest in acquiring the land and building a replacement facility at the Lakeside site. Implementation of this option is dependent on a successfully negotiated lease.
- The Option C proposal will require considerable advanced planning and coordination to prepare for interruptions that will occur during construction of a replacement hospital. Swing space for patient care and relocation plans for patients, employees, and trainees will need to be coordinated.

The Southern Market – Option C

- The West Side medical and surgical inpatient services are closed. This option will require that University of Illinois medical and surgical residents go elsewhere for training and will have an impact on the affiliation between the VA and the university.

Portfolio Level Impacts

Exhibit 5-6 briefly summarizes the impacts of Option C on VA’s capital asset portfolio in the Southern Market.

Exhibit 5-6. Portfolio Level Impacts of Option C

FACILITY	REALIGNMENT OF MISSION/UTILIZATION		
	CURRENT	PROPOSED	IMPACT ON CAPITAL ASSETS
VA CHCS— West Side	<ul style="list-style-type: none"> • Acute Medicine, Surgery and Psychiatry • Residential Rehab • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • Acute Psychiatry • Residential Rehab • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • New construction of one floor above the ambulatory care clinics (Building 30) • Building 1 is closed, mothballed, and targeted for EU or disposal opportunities
VA CHCS— Lakeside	<ul style="list-style-type: none"> • Acute Medicine and Surgical Services • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • Acute Medicine and Surgical Services • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • EU lease of entire Lakeside Hospital • Lease back 128 acute beds and ACC
Hines	<ul style="list-style-type: none"> • Acute Medicine, Surgery and Psychiatry • SCI • Blind Rehab • Residential Rehab • Nursing Home Care • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • Acute Medicine, Surgery and Psychiatry • SCI • Blind Rehab • Residential Rehab • Nursing Home Care • Domiciliary • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • Renovation of acute care space in main hospital (Building 200), including SCI ward to meet new demand and current space standards • Renovation of portions of Building 1 to house 75 domiciliary beds and relocation of any displaced services/missions • Construction of a new blind rehabilitation facility to upgrade to current space standards; demolish Buildings 12 and 13 • EU outleasing of two underutilized parcels of land
North Chicago	<ul style="list-style-type: none"> • Acute Medicine and Psychiatry • Residential Rehab • Domiciliary • Long-Term Psychiatry • Nursing Home Care • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • Acute medicine beds (27) preserved through DoD Sharing • Acute Psychiatry • Residential Rehab • Domiciliary • Long-Term Psychiatry • Nursing Home Care • Ambulatory Care Clinic 	<ul style="list-style-type: none"> • Operation of inpatient wards turned over to DoD • Renovation of acute psych wards (Building 133CA) • Renovation of nursing home care and long-term psych wards (Buildings 131 & 134) • EU lease of real property to NTC Great Lakes for base expansion

5.3.4 Option D divides inpatient workload from the City Submarket between a newly constructed small VA hospital and a large VA hospital in the neighboring submarket.

Demand projections adjusted for migration suggest that approximately 155 to 190 acute care beds will be required to serve the submarket designated as City of Chicago in FY 2010. In this option, that demand is accommodated by building a small new hospital at West Side and leveraging excess capacity at Hines.

In Option D, West Side and Hines share the acute inpatient workload from the City Submarket. Two additional floors are constructed above the West Side Ambulatory Care Center to accommodate 98 acute inpatient medical, surgical, and psychiatric beds. Building 1 of the current West Side hospital is closed and the patient care areas mothballed. Lakeside inpatient services are discontinued, and the Lakeside property is available for sale or Enhanced Use lease to Northwestern Memorial Hospital or another entity. Hines would become larger than in Options A, B, or C with 284 acute beds on a 788-bed campus and would continue to provide the same spectrum of services. North Chicago would continue to provide 27 acute beds on a 598-bed campus with the spectrum of services described above.

Description and Discussion by Facility

- **West Side.** In Option D, as in Option A, two floors are constructed atop the West Side Ambulatory Care Center to provide 98 medical, surgical, and psychiatric beds as well as four operating rooms. These beds accommodate, in part, the demand created by the City Submarket. However, in order to completely accommodate the demand generated by the Chicago City Submarket, additional beds would be required. In this option, those additional beds are supplied by Hines; the current West Side Hospital inpatient areas are mothballed.

As previously described, West Side will continue to provide extensive ambulatory services, including a multispecialty clinic, methadone maintenance, and ambulatory surgery. Clinic stops are projected to be 552,153.

- **Lakeside.** In Option D, as in Option B, Lakeside discontinues inpatient medical and surgical services. The Lakeside property becomes available for sale or Enhanced Use leased to Northwestern Memorial Hospital or another bidder. In this option, it is not essential that the bidder be a hospital since there is no proposal to lease back inpatient beds. The only stipulation is that sufficient space is reserved on or near the Lakeside property so that ambulatory services can be preserved. A full spectrum of ambulatory services are provided as previously described.
- **Hines.** In Option D, Hines is substantially larger than in any of the other options in the Southern Market, with 284 acute beds on a 788-bed campus. Thus, in Option D only does Hines, which largely serves the Suburban Market, provide a substantial supply of the acute care services for the City of Chicago. (Hines current capacity of 226 acute beds could be substantially increased with renovation. The maximum post renovation capacity is approximately 354 acute beds.)

The Southern Market – Option D

We justify this idea for the following reasons: (1) Because Hines is only six miles from the city boundary, and the city’s public transportation system is not robust outside the city limit, city-dwelling veterans within a 12-mile radius can arrive at the facility within the one-hour access standard; (2) Hines has excess capacity, which is a reasonable way to leverage that capacity in our attempt to utilize current supply to meet future demand; (3) Because of the geographical relationship between Hines and West Side (i.e., the two facilities are only 10 miles apart and virtually connected by the Eisenhower Expressway), West Side and Hines have the opportunity to integrate services and management. For instance Hines, in addition to providing medical and surgical support, would be able to supply ancillary services such as laboratory and pathology services as well as laundry and food services on behalf of the smaller West Side facility.

As noted in the other options, Hines would continue to supply 68 acute and 30 long-term SCI beds, 238 nursing home beds, 30 psychiatry beds, and 75 newly renovated domiciliary beds, of which 30 would be devoted to residential rehabilitation. Hines would increase its complement of residential rehabilitation beds to 59 beds.

- **North Chicago.** North Chicago remains essentially the same in Options A through D. In Option D, as previously noted in Options A, B, and C, North Chicago is a 598-bed campus largely focused on nursing home care, domiciliary care, long-term psychiatric care, acute psychiatric care, and residential rehabilitation services. In this, as in all options, we propose that VA and DoD share the resources of the acute care hospital, allocating 27 medical beds to the VA. There is an opportunity for Enhanced Use for nursing home beds and an assisted living facility. Ambulatory services continue as described in previous options.

OPTION D—SUMMARY

- A 98-bed inpatient medical, surgical and psychiatric facility is built atop the West Side Ambulatory Care Center. The current West Side hospital is closed.
- Lakeside inpatient services are discontinued. The property is sold or used in an Enhanced Use arrangement.
- Hines is renovated; a new blind rehabilitation center is built; the acute medical/surgical capacity would be increased to share nearby city workload.
- North Chicago is renovated; DoD sharing, somewhat larger.
- All four sites continue providing an extensive array of multispecialty ambulatory care services.

SOUTHERN MARKET		Inpatient					Extended Care					Bed Total	Contract Beds	VA Beds
Submarket	Inpatient Service Site	Medical	Surgical	Acute Psych	SCI	Blind Rehab	RRTP	DOM	SCI RCF	Long-term Psych	NHCU			
City	West Side VAMC	43	15	40								98		98
	Lakeside VAMC											0		0
Suburban	Hines VAMC	164	90	30	68	34	59	75	30		238	788		788
	North Chicago	27		30			40	186		67	248	598		598
	Service Totals	234	105	100	68	34	99	261	30	67	486	1484		1484
Subtotal	Cat. 1-6	221	99	96	65	32	97	249	28	65	466	1418		1418
	Cat. 7	13	6	4	3	2	2	13	2	2	19	66		66
	Market Total	541					943				1484			1484

Scalability

This option has the more limited ability to adapt to unpredictable events that cause large increases in acute workload. And its ability to respond to large reductions in workload is limited compared with Options A and C. More than any other option, Option D leverages the excess capacity that could be generated at Hines through renovation and uses 284 of its potential 354 acute beds, which leaves 70 acute beds to provide upward scalability (limited upward scalability). Because this option provides only 98 beds in the City Submarket, it is significantly less vulnerable to decreases in demand than is the status quo. However, this option cannot further adjust in a downward direction as there is no private sector contracting or Enhanced Use lease-back provision for acute beds (no downward scalability) (See Chapter 8 Sensitivity Analysis, Section 8.1).

Feasibility

Below we briefly summarize selected issues that may affect the feasibility of Option D.

- In Option D, the Lakeside inpatient facility is closed because total projected demand for acute beds is distributed to the West Side and Hines facilities, which have the capacity to handle the workload. As there is no need to lease back beds at “Lakeside/Options A and C, this option is not contingent on negotiating an Enhanced Use agreement.
- A proposed sharing agreement between GLNH and the North Chicago VAMC would be negotiated locally with little intervention by VA Headquarters other than support and approval of a final proposal.
- Closure of the Lakeside inpatient facility in Option D will require Northwestern residents to go elsewhere for training. This option will significantly impact the affiliation between VA and Northwestern Medical School.

Portfolio Level Impacts

Exhibit 5-7 briefly summarizes the impacts of Option D on VA’s capital asset portfolio in the Southern Market.

Exhibit 5-7. Portfolio Level Impacts of Option D

FACILITY	REALIGNMENT OF MISSION/UTILIZATION		
	CURRENT	PROPOSED	IMPACT ON CAPITAL ASSETS
VA CHCS— West Side	<ul style="list-style-type: none"> Acute Medicine, Surgery and Psychiatry Residential Rehab Ambulatory Care Clinic 	<ul style="list-style-type: none"> Acute Medicine, Surgery and Psychiatry Ambulatory Care Clinic 	<ul style="list-style-type: none"> New construction of two floors above the ambulatory care clinic (Building 30) Building 1 is closed, mothballed, and targeted for EU or disposal opportunities
VA CHCS— Lakeside	<ul style="list-style-type: none"> Acute Medical and Surgical Services Ambulatory Care Clinic 	<ul style="list-style-type: none"> Ambulatory Care Clinic 	<ul style="list-style-type: none"> Enhanced Use lease of entire Lakeside Hospital Lease back ACC
Hines	<ul style="list-style-type: none"> Acute Medicine, Surgery and Psychiatry SCI Blind Rehab Residential Rehab Nursing Home Care Ambulatory Care Clinic 	<ul style="list-style-type: none"> Acute Medicine, Surgery and Psychiatry SCI Blind Rehab Residential Rehab Nursing Home Care Domiciliary Ambulatory Care Clinic 	<ul style="list-style-type: none"> Renovation of acute care space in main hospital (Building 200), including SCI ward to meet new demand and current space standards Renovation of portions of Building 1 to house 75 domiciliary beds and relocation of any displaced services/missions. Construction of a new blind rehabilitation facility to upgrade to current space standards; demolish Buildings 12 and 13 EU outleasing of two underutilized parcels of land
North Chicago	<ul style="list-style-type: none"> Acute Medicine and Psychiatry Residential Rehab Domiciliary Long-Term Psychiatry Nursing Home Care Ambulatory Care Clinic 	<ul style="list-style-type: none"> Acute medicine beds (27) preserved through DoD Sharing Acute Psychiatry Residential Rehab Domiciliary Long-Term Psychiatry Nursing Home Care Ambulatory Care Clinic 	<ul style="list-style-type: none"> Operation of inpatient wards turned over to DoD Renovation of acute psych wards (Building 133CA) Renovation of nursing home care and long-term psych wards (Buildings 131 & 134) EU lease of real property to NTC Great Lakes for base expansion

5.4 IN THE CENTRAL MARKET, THE PRIMARY QUESTIONS REVOLVE AROUND BALANCING ACCESS/TRAVEL TIME WITH CURRENT EQUITY.

Market Description

The Central Market, composed mostly of Wisconsin, dips into Northern Illinois to encompass Rockford in the south (see Map 7. VISN 12: Central Market). This largely rural market can be divided into six submarkets or zones based on population clusters. These submarkets and their projected number of enrollees in FY 2010 is as follows: Milwaukee, 33,544; Madison 17,914; Green Bay, 11,370; La Crosse/Tomah, 7,938; and Wisconsin Rapids, 3,370. Madison West, a very sparsely populated zone just west of the Madison Submarket has 2,469 enrollees. Three submarkets—Milwaukee, Madison and Tomah/La Crosse—have VAMCs within their boundaries. The remaining submarkets, Green Bay and Wisconsin Rapids, are more than 90 minutes from a VAMC.

Central Market Options

Overview. We have developed three service delivery options for the Central Market: Options E, F, and G. The dominant challenge in the Central Market is to provide accessible healthcare to veterans who do not live in urban areas. Most of the changes in these three options are driven by different strategies involving Madison. A challenge is what to do with VA services in Madison in the face of a projected marginal enrolled population. The second “moving part” in one of these options involves the purchase of private sector inpatient and specialty ambulatory services in remote submarkets more than 90 minutes from a VAMC. Milwaukee and Tomah vary somewhat in size but undergo no fundamental change in mission in any of the options.

First, we will summarize the common recurring strategies in these three options. Then we will provide a very brief summary of each option. Finally, we delve into each option and present the rationale behind the approaches to each major facility and submarket.

Recurring Strategies in the Central Market. Before describing the individual options, we will enumerate the recurring elements that appear in two or more of the three options.

- In all three options, Milwaukee is the largest facility in the Central Market. The spectrum of services is similar to today, including SCI.
- In all three options, Tomah would focus, as it does today, on nursing home care, long-term psychiatry, and residential rehabilitation, with only a small complement of acute medical beds.
- In Options E and F, an Enhanced Use arrangement between Madison VAMC and University of Wisconsin is proposed.
- All three sites maintain a robust ambulatory care service in each option.

5.4.1 Option E outsources with private providers to meet the demand in submarkets far from a VAMC, while leveraging the relationship with an existing affiliate to lease acute beds.

In Option E, inpatient and specialized services are purchased from the private sector in the Green Bay and Wisconsin Rapids Submarkets, which are more than 90 minutes from a VAMC. The objective is to enhance access. Through an Enhanced Use arrangement, the Madison VAMC is acquired by the University of Wisconsin and the VA leases back 44 acute beds. The Milwaukee VAMC is extensively renovated, with 82 acute beds on this 518-bed campus providing a similar spectrum of services as it does today. Tomah is a 248-bed campus with the VAMC also providing a similar spectrum of services as today.

Description and Discussion by Facility and Submarket

- **Milwaukee VAMC.** The Milwaukee VAMC is renovated, and in the process of bringing it up to current standards, its total capacity will be reduced to approximately 114 acute beds.

In Option E, the demand generated by the Milwaukee Submarket is accommodated by 41 medical, 19 surgical, and 22 psychiatric beds at the Milwaukee VAMC. The Milwaukee VAMC is considered a “tertiary care center.” However, an 82-bed hospital cannot supply a broad spectrum of tertiary services. This smaller size can be attributed, in part, to excluding the Green Bay Submarket from the Milwaukee “catchment area.” But even if Green Bay is included in the Milwaukee workload, as is proposed in Option F, Milwaukee’s acute care beds are increased only to 101, still insufficient to support a broad range of tertiary services. That marginal increase is achieved only by asking aging veterans to travel a great distance.

Despite its more limited “tertiary” capability, it is still appropriate to supply 38 acute SCI beds at Milwaukee. Most of the tertiary care needs of SCI patients, whether for neurosurgery or other specialized services, are elective or semi-elective, and can be provided through Milwaukee’s relationship with the Medical College of Wisconsin.

Milwaukee will continue to provide approximately 318 domiciliary beds; however, the nursing home, once renovated, will be capable of providing only approximately 80 beds. We examined options to increase the complement of nursing home beds at Milwaukee, including the renovation of historic buildings, but none proved satisfactory. Instead, North Chicago’s long-term care capacity, only about one hour away, serves to augment Milwaukee’s nursing home care needs. However, given Milwaukee’s attractive campus there may be potential to engage a private contractor in an Enhanced Use arrangement to provide an assisted living facility or an additional nursing home.

Milwaukee will continue to provide a broad spectrum of ambulatory services including ambulatory surgery. The total number of clinic stops in FY 2010 is projected to be 488,990, and dental CTVs are projected at 124,374.

- **Green Bay.** The Green Bay Submarket lies just north of the Milwaukee Submarket. The southernmost border of the Green Bay Submarket is more than 90 minutes from the Milwaukee VAMC, and the northern regions of the Green Bay Submarket are more than three hours away from the Milwaukee VAMC. Consequently, we have proposed that veterans living in the Green Bay Submarket be served by the excess private sector capacity there. Of course, these veterans may choose to travel to Milwaukee or any other VA facility.

It is estimated that VA would have to purchase approximately 19 medical/surgical beds in the Green Bay Submarket in FY 2010. This volume would justify leasing a VA ward in a private sector hospital if the appropriate partner could be identified. The new Green Bay CBOC would “feed” that inpatient service.

In addition to reducing travel times, purchasing these services is likely to reduce waiting times for outpatient specialty care. Leveraging the private sector capacity will increase the pool of specialty providers, taking “volume” pressure off the specialty providers at the Milwaukee VAMC.

- **Madison.** The Madison VAMC is in good condition and is physically attached to the University of Wisconsin Medical Center, providing veterans with a broad array of tertiary services. The Madison VAMC serves veterans in the Madison Submarket, which is projected to be home to approximately 17,914 enrolled veterans in FY 2010. Because these enrollees would generate demand for only 23 medical beds, 11 surgical beds, 10 acute psychiatric, and 9 residential rehabilitation beds for a total of 53 beds, the Madison VAMC, a hospital with a 150-bed capacity, would be almost two-thirds empty. Demand projections between FY 2010 and FY 2020 suggest an additional 40-percent decline in workload, which would bring Madison in the range of 32 beds. (In FY 2000, Madison had 99 authorized beds with an average daily census (ADC) of 20 in medicine/neurology, 22 in intermediate care, 16 in surgery, and 14 in psychiatry.)

To sustain inpatient care at Madison, Option E proposes an Enhanced Use arrangement in which the Madison facility is appropriated by the University of Wisconsin. VA would then lease back 44 beds, or 53 if residential rehabilitation remains hospital-based, which would also benefit the university that is currently expanding its medical campus.

If this Enhanced Use agreement was not successfully negotiated, Option E recommends closing the Madison VA. The small number of veterans served there would also be served in part by the Milwaukee VAMC and in part through contracting in the community.

In either case, VA would maintain a robust ambulatory care center at Madison. Madison VAMC is projected to accommodate 288,591 clinic stops and 37,914 CTVs in FY 2010.

- **Tomah/La Crosse.** The Tomah VAMC is located in the rural town of Tomah, WI, and is included in the La Crosse Submarket. It is important to note that markets and submarkets are defined by enrollee populations, not by the location of VA facilities. Often, veteran populations and facility placement are congruous, as in the case of the Milwaukee VAMC.

The Central Market – Option E

In other cases VA facilities are not located at the epicenters of veteran population density. Tomah VAMC is such a case, located an hour east of the La Crosse population cluster.

The total veteran enrollment in the La Crosse/Tomah Submarket is projected to be about 7,938 in FY 2010. This enrollee population is projected to generate a need for 8 medical beds, 4 surgical beds, and 7 acute psychiatry beds.

In Option E, we propose that Tomah maintain its mission as an important repository of long-term care beds for the Central Market. Accordingly, Tomah is allocated 157 nursing home beds, 45 long-term psychiatry beds, and 31 residential rehabilitation beds. It will also maintain approximately 8 acute medical and 7 acute psychiatry beds.

We contemplated discontinuing the acute medical service at Tomah. However, given the needs of this rural area and the acute care needs that are regularly generated from long-term care beds, it seems prudent to maintain a small complement of acute beds. Furthermore, given the overall size of the facility and spectrum of services, the incremental cost of the acute medical service is small and clinically appropriate. On the other hand, surgery has a projected need for four surgical beds, which is far too small a service to maintain the volume of procedures necessary to maintain quality. However, rather than traveling two hours to Madison, in this option we propose that VA purchase surgical care in La Crosse.

Ambulatory care poses other challenges at Tomah because of chronic difficulty in recruiting and maintaining specialists in this very rural town. Tomah VAMC provides primary care and some cardiology and neurology services. However, veterans requiring specialty care such as a screening procedure (e.g., colonoscopy) must make the long trek to Madison. This inconvenience was a major source of complaints voiced by veterans during our site visit.

In Option E, we propose that VA purchase ambulatory subspecialty services in La Crosse to reduce travel and wait times as well as relieve some of the volume pressure on subspecialty providers at Madison VAMC. Of course, veterans will have the option of going to Madison VAMC.

Another strategy to reduce travel frequency is a telemedicine program similar to that developed by the Iron Mountain VAMC and the Milwaukee VAMC. This is likely to be an increasingly important modality in rural environments. Establishing such a network also lays the foundation for telemedicine-based home visits. While the impact of this emerging modality is difficult to quantify, it is an important consideration when thinking about the future and meeting the challenges of rural medicine.

Tomah VAMC will continue to provide its current range of ambulatory services and extend the breadth of those services where possible. Tomah VAMC is projected to have 155,058 clinic stops and 46,948 CTVs in FY 2010.

- **Wisconsin Rapids and Madison West.** The southern border of the Wisconsin Rapids Submarket is approximately 90 minutes from the Madison VAMC. Sparsely populated, this submarket is projected to generate demand for six medical/surgical beds and two

psychiatric beds. In Option E, this care is purchased in the private sector so that veterans living in remote areas will not have to travel to Madison. The new Wisconsin Rapids CBOC would provide for the primary care needs of veterans in this submarket.

In the sparsely populated zone west of the Madison Submarket called Madison West, veterans living here would have the option of obtaining care in the community or traveling to Madison. This submarket has an estimated need of approximately six acute beds.

OPTION E—SUMMARY

- Milwaukee is renovated and provides a similar range of services as today.
- Through an Enhanced Use arrangement Madison is acquired by University of Wisconsin-Madison, VA leases back 44 acute beds.
- Tomah continues much as it is today and is renovated.
- A limited number of acute beds and specialty ambulatory services are purchased in the community in areas more than 90 to 120 minutes from a VAMC.
- All current sites maintain active ambulatory care services.
- Approximately 98 percent of enrollees are within the CARES program access standard for specialized ambulatory care and acute inpatient care.
- New CBOCs are located in Green Bay, Wisconsin Rapids, and Freeport.

CENTRAL MARKET		Inpatient					Extended Care					Bed Total	Contract Beds	VA Beds
Sub Market	Inpatient Service	Medical	Surgical	Acute Psych	SCI	Blind Rehab	RRTP	DOM	SCI RCF	Long-term Psych	NHCU			
Milwaukee	Milwaukee VAMC	41	19	22	38			318			80	518		518
Madison	Madison VAMC	23	11	10			9					53		53
*LaCrosse	Private Sector		4									4	4	
	Tomah VAMC	8		7			31			45	157	248		248
*Wisc. Rapids	Private Sector	4	2	2								8	8	
*Green Bay	Private Sector	10	5	4								19	19	
Madison West	Private Sector	3	1	2								6	6	
Totals		89	42	47	38	0	40	318	0	45	237	856	37	819
Subtotal	Cat. 1-6	84	39	45	36	0	39	298	0	43	226	810		
	Cat. 7	5	3	2	2	0	1	20	0	2	11	46		
Market Total		216					640					856		
VISN Service Totals		89	42	47	38	0	40	318	0	45	237	856	37	819
Contract Beds		17	12	8	0	0	0	0	0	0	0	37		
VA Beds		72	30	39	38	0	40	318	0	45	237	819		

Scalability

This option has the ability to adapt to unpredictable events that cause large increases or decreases in acute workload. Milwaukee has a maximum of 114 acute bed capacity of which 82 are used in this option, leaving 32 beds in reserve to meet unexpected demand (upward scalability). Additional upward scalability would permit the leasing of additional beds if necessary because of the Enhanced Use lease-back arrangement with the University of Wisconsin-Madison. The provision to contract for acute beds in remote areas provides the greatest source of scalability due to a very large pool of unused beds in the community. Both the Enhanced Use agreement at the university and private sector contracting provide downward scalability because the level of contracting/leasing can be adjusted downward if demand falls (downward scalability) (see Chapter 8 Sensitivity Analysis, Section 8.1).

*The Central Market – Option E***Feasibility**

Below we briefly summarize selected issues that may affect the feasibility of Option E.

- This option proposes contracting a limited number of acute beds and specialty ambulatory care services with the private sector in order to improve access for veterans who live in remote areas. Implementation will require that VA develop policy guidance for determining eligibility as well as negotiating and monitoring contracts.
- This option proposes negotiation of an Enhanced Use lease agreement with the University of Wisconsin Medical School. Since the university is currently expanding and because of the close proximity of the Madison VAMC, the agreement may become mutually beneficial solution. Implementation of this option is dependent on successfully negotiating the Enhanced Use agreement.
- If the Enhanced Use lease agreement cannot be negotiated satisfactorily, the Option E proposal is to close Madison VAMC. Services would be contracted with the private sector. This option would significantly affect the affiliation with the University of Wisconsin.

Portfolio Level Impacts

Exhibit 5-8 briefly summarizes the impacts of Option E on VA's capital asset portfolio in the Central Market.

Exhibit 5-8. Portfolio Level Impacts of Option E

FACILITY	REALIGNMENT OF MISSION/UTILIZATION		
	CURRENT	PROPOSED	IMPACT ON CAPITAL ASSETS
Milwaukee	<ul style="list-style-type: none"> Acute Medicine, Surgery and Psychiatry SCI Domiciliary Nursing Home Care Ambulatory Care Clinic 	<ul style="list-style-type: none"> Acute Medicine, Surgery and Psychiatry SCI Domiciliary Nursing Home Care Ambulatory Care Clinic New CBOC in Green Bay 	<ul style="list-style-type: none"> Renovation of acute care ward (Building 111) Renovation of SCI wards A and C (Building 111) Renovation of 80 nursing home care beds (Building 111)
Madison	<ul style="list-style-type: none"> Acute Medical and Surgical Services Residential Rehab Ambulatory Care Clinic 	<ul style="list-style-type: none"> Acute Medical and Surgical Services Residential Rehab Ambulatory Care Clinic New CBOC in Freeport 	<ul style="list-style-type: none"> Enhanced Use lease of entire Madison Hospital or closure Lease back acute and RRTP beds and ACC at Madison or in community
Tomah	<ul style="list-style-type: none"> Acute Medicine and Psychiatry Residential Rehab Long-Term Psychiatry Nursing Home Care Ambulatory Care Clinic 	<ul style="list-style-type: none"> Acute Medicine and Psychiatry Residential Rehab Long-Term Psychiatry Nursing Home Care Ambulatory Care Clinic New CBOC in Wisconsin Rapids 	<ul style="list-style-type: none"> Renovation of med/surg ward (Building 400) Renovation of mental health ward (Building 408) Renovation of psych rehab beds (Building 404) Renovation of nursing home care (Buildings 402, 403, 406)

5.4.2 Option F leverages the relationship with an existing affiliate to lease acute beds.

Mostly identical to Option E, Option F contains no proposal to contract for acute inpatient services or specialty ambulatory services. Hence, the Madison and Milwaukee VAMCs must accommodate additional acute inpatient beds. Through an Enhanced Use arrangement, the Madison VAMC would be acquired by the University of Wisconsin, with the VA leasing back 62 acute beds. In Option F, the Milwaukee VAMC is extensively renovated, and 101 beds are devoted to acute care on this 537-bed campus. Tomah is a 248-bed campus providing a similar spectrum of services as today, including a limited number of acute beds.

Description and Discussion by Facility

- **Milwaukee.** The Milwaukee VAMC is renovated and in the process its capacity is reduced to 114 acute beds. Because there is no provision to contract for inpatient or specialty ambulatory services in this option, veterans living in the Green Bay Submarket will travel to Milwaukee for these services. In essence, the Green Bay Submarket is added to the Milwaukee Submarket to create a new larger submarket served by the Milwaukee VAMC. This larger submarket is projected to have a combined enrollee population of 44,914 in FY 2010, generating a need for 101 acute beds at the Milwaukee VAMC. These beds are divided between 51 medical beds, 24 surgical beds, and 26 acute psychiatric beds. Milwaukee will also provide 38 acute SCI beds.

Milwaukee will continue to provide approximately 318 domiciliary beds, but the nursing home, once renovated, will only be capable of providing approximately 80 beds. North Chicago, about one hour away, will augment Milwaukee's nursing home care needs. However, given Milwaukee's attractive campus, there may be potential to engage a private contractor in an Enhanced Use arrangement to provide an assisted living facility or an additional nursing home.

As previously described, Milwaukee will continue to provide a broad spectrum of ambulatory services including ambulatory surgery. There is a projected demand for 601,577 ambulatory clinic stops.

- **Madison.** In good condition, the Madison VAMC is physically attached to the University of Wisconsin Medical Center, providing veterans with a broad array of tertiary services. Because there is no contracting in Option F, the Madison VAMC must serve veterans beyond the boundaries of the Madison Submarket to include veterans in the Wisconsin Rapids Submarket and the Madison West Zone that lie to the west and south of the Madison Submarket. In essence, these three regions are combined to form a larger submarket served by the Madison VAMC (see Map 7. VISN 12: Central Market).

The projected number of enrollees in this combined submarket is 23,753. These enrollees generate a projected demand for 30 medical beds, 18 surgical beds, 14 acute psychiatry, and 9 residential rehabilitation beds for a total of 71 beds in FY 2010. This would leave the Madison VAMC, a hospital with a total bed capacity of 150, more than half empty. Demand projections between FY 2010 and FY 2020 suggest an additional 40-percent decline in workload bringing Madison VAMC in the range of 40 acute beds.

In order to sustain Madison VAMC as an inpatient treatment site, Option F proposes an Enhanced Use arrangement in which the University of Wisconsin appropriates the Madison facility. VA would then lease back a prescribed number of beds, in this case 71. This would benefit the University as well, which is currently expanding its medical campus.

If this Enhanced Use agreement were to fail, Option F recommends that the Madison VA acute inpatient service be closed. The veterans served there could be served in part by the Milwaukee VAMC and in part through more aggressive contracting in the community. In

either case, Madison VAMC would maintain a robust ambulatory care center as previously described. There is projected demand for 371,774 clinic stops.

- **Tomah.** As previously described, the Tomah VAMC is located in the rural town of Tomah, WI, and has historically been the largest employer in town. It is the only VA facility in the La Crosse/Tomah Submarket.

In Option F, as in Option E, we propose that Tomah VAMC maintain its mission as an important repository of long-term beds for the Central Market. Accordingly, it is allocated 157 nursing home beds, 45 long-term psychiatry beds, and 31 residential rehabilitation beds.

Following the same rationale we provided in Option E, in Option F, Tomah will also maintain eight acute medical beds and seven acute psychiatric beds. A need for approximately four surgical beds is projected in the submarket served by Tomah. In Option F, instead of purchasing these services in the community as in Option E, services will be provided, when possible, at Madison (in emergent cases the two-hour travel time to Madison will make that arrangement untenable).

As previously noted, ambulatory care poses certain challenges at Tomah. While Tomah VAMC has an active primary care clinic, its range of specialty services is very limited. Difficulties lie in recruiting specialists and surgeons for this small rural town and in acquiring specialists from the Madison VAMC to travel two hours to Tomah to provide an occasional clinic. Consequently, when veterans need specialty care they must make the long trip to Madison. This is true even for routine, high-volume screening procedures like colonoscopies. This inconvenience was a major source of complaints voiced by veterans during our site visit.

Nonetheless, Option F proposes that veterans travel to Madison VAMC for their outpatient specialty care. In an effort to mitigate the burden of this travel, particularly as the veteran population ages, the possibility of sending specialists to Tomah for rotating clinics should be revisited. However, the difficulty of pulling attending surgeons and procedural specialists away from the medical center for an entire day is recognized. A telemedicine program similar to that at Iron Mountain may also be effective in reducing the frequency of trips veterans must make to Madison.

There is a projected demand for 161,460 clinic stops at Tomah in this option.

*The Central Market – Option G***OPTION F—SUMMARY**

- Milwaukee is renovated and provides a similar range of services as today.
- Through an Enhanced Use arrangement, Madison is acquired by University of Wisconsin at Madison, and VA leases back 62 acute beds.
- Tomah is renovated and continues current mission.
- All current sites maintain active ambulatory care services.
- There is no routine contracting in the more remote submarkets.
- Approximately 80 percent of enrollees are within the CARES program access standard for specialized ambulatory care and acute inpatient care.
- New CBOCs are located in Green Bay, Wisconsin Rapids, and Freeport.

CENTRAL MARKET		Inpatient					Extended Care					Bed Total	Contract Beds	VA Beds
Submarket	Inpatient Service Site	Medical	Surgical	Acute Psych	SCI	Blind Rehab	RRTP	DOM	SCI RCF	Long-term Psych	NHCU			
Milwaukee	Milwaukee VAMC	51	24	26	38			318			80	537		537
Madison	Madison VAMC	30	18	14			9					71		71
*LaCrosse	Private Sector											0	0	
	Tomah VAMC	8		7			31			45	157	248		248
*Wisc. Rapids	Private Sector											0	0	
*Green Bay	Private Sector											0	0	
Madison West	Private Sector											0	0	
	Service Totals	89	42	47	38	0	40	318	0	45	237	856	0	856
Subtotal	Cat. 1-6	84	39	45	36	0	39	298	0	43	226	810		
	Cat. 7	5	3	2	2	0	1	20	0	2	11	46		
	Market Total	216					640					856		

Scalability

This option has moderate ability to adapt to unpredictable events that cause large increases or decreases in acute workload. Milwaukee has a maximum capacity of 114 acute beds of which 101 are used in this option. This leaves only 13 extra beds at Milwaukee. Most of the upward scalability is achieved through the Enhanced Use lease-back arrangement with the University of Wisconsin at Madison. This would permit additional beds to be leased if necessary. Conditions of the Enhanced Use lease would determine the maximum number but we assume a 25-percent increase is achievable. The Enhanced Use agreement at University of Wisconsin provides downward scalability as the number of beds can be adjusted downward if demand falls (downward scalability) (see Chapter 8 Sensitivity Analysis, Section 8.1).

Feasibility

Option F proposes negotiation of an Enhanced Use lease agreement with the University of Wisconsin Medical School. Because the University is currently expanding, its close proximity to the Madison VAMC may make the agreement mutually beneficial solution. Implementation of this option is dependent on successfully negotiating the Enhanced Use agreement.

Portfolio Level Impacts

Exhibit 5-9 briefly summarizes the impact of Option F on VA's capital asset portfolio in the Central Market.

Exhibit 5-9. Portfolio Level Impacts of Option F

FACILITY	REALIGNMENT OF MISSION/UTILIZATION		
	CURRENT	PROPOSED	IMPACT ON CAPITAL ASSETS
Milwaukee	<ul style="list-style-type: none"> Acute Medicine, Surgery and Psychiatry SCI Domiciliary Nursing Home Care Ambulatory Care Clinic 	<ul style="list-style-type: none"> Acute Medicine, Surgery and Psychiatry SCI Domiciliary Nursing Home Care Ambulatory Care Clinic New CBOC in Green Bay 	<ul style="list-style-type: none"> Renovation of acute care ward (Building 111) Renovation of Spinal Cord Injury wards A and C (Building 111) Renovation of nursing home care wards (Building 111)
Madison	<ul style="list-style-type: none"> Acute Medical and Surgical Services Residential Rehab Ambulatory Care Clinic 	<ul style="list-style-type: none"> Acute Medical and Surgical Services Residential Rehab Ambulatory Care Clinic New CBOC in Freeport 	<ul style="list-style-type: none"> Enhanced Use lease of entire Madison Hospital or closed Lease back acute beds, RRTP and ACC at Madison
Tomah	<ul style="list-style-type: none"> Acute Medicine and Psychiatry Residential Rehab Long-Term Psychiatry Nursing Home Care Ambulatory Care Clinic 	<ul style="list-style-type: none"> Acute Medicine and Psychiatry Residential Rehab Long-Term Psychiatry Nursing Home Care Ambulatory Care Clinic New CBOC in Wisconsin Rapids 	<ul style="list-style-type: none"> Renovation of med/surg ward (Building 400) Renovation of mental health ward (Building 408) Renovation of psych rehab beds (Building 404) Renovation of nursing home care (Buildings 402, 403, 406)

5.4.3 Option G sustains the Madison VAMC by adding nursing home beds.

Option G sustains the inpatient service at Madison by using much of the hospital as a long-term care facility. Approximately 75 nursing home care beds are relocated from Tomah to the Madison VAMC. Tomah is reduced in size, now only a 173-bed campus, providing a similar spectrum of services as today. The Milwaukee VAMC is renovated providing 101 acute beds on this 537-bed campus with a similar spectrum of services as today. As in Option F, Option G has no provision for contracting inpatient services or specialized ambulatory services in the more remote Wisconsin Submarkets.

Description and Discussion by Facility

- **Milwaukee.** The Milwaukee VAMC is renovated and in the process its capacity is reduced to 114 beds. Because there is no contracting for inpatient or specialized

The Central Market – Option G

ambulatory care in this option, the Milwaukee VAMC serves both the Milwaukee and Green Bay Submarkets as in Option F. This combined submarket is projected to have an enrollee population of 44,914 in FY 2010 generating a need for 101 acute beds at the Milwaukee VAMC. In Option G, as in Option F, these beds are divided between 51 medical beds, 24 surgical beds, and 26 acute psychiatric beds. As in all options in the Central Market, Option G maintains 38 acute SCI beds at the Milwaukee VAMC.

The nursing home is renovated and in the process the number of available beds is reduced to 80. The domiciliary will provide approximately 318 beds. As noted earlier, the Milwaukee campus offers the opportunity to explore Enhanced Use arrangements for assisted living and nursing home facilities in the future. There is a projected demand for 601,577 clinic stops in this option.

- **Madison.** The Madison VAMC is in good condition and is physically attached to the University of Wisconsin Medical Center, providing veterans with a broad array of tertiary services. Because no contracting exists for this option, the Madison VAMC must serve veterans beyond the boundaries of the Madison Submarket to include veterans in the Wisconsin Rapids Submarket and the Madison West Zone that lie to the west of the Madison Submarket. In essence, these three regions are combined to form a larger submarket served by the Madison VAMC.

The projected number of enrollees in this combined submarket is 23,753. These enrollees generate a projected demand for 30 medical beds, 18 surgical beds, 14 acute psychiatry, and 9 residential rehabilitation beds.

As noted in the previous two options, this low level of projected workload puts inpatient care at the 150-bed Madison facility in jeopardy. This option proposes another strategy to leverage the equity at the Madison VAMC and maintain inpatient care.

In Option G, 75 nursing home care beds are relocated from Tomah to the Madison VAMC. This, in addition to the 71 acute and rehabilitation beds allocated to Madison, would bring its bed total up to 146, thereby leveraging all its existing space. Not only does this help support the inpatient mission of the Madison VA, but also it allows a more geographically dispersed allocation of nursing home beds. Rather than concentrating beds in the Tomah and Milwaukee, a cohort of nursing home beds will be accessible in the central region of the state. (A large veteran state nursing home facility is nearby but generally serves a lower acuity patient than VA nursing homes.) This factor would not preclude an Enhanced Use arrangement with the university, which can choose to locate a cohort of nursing home beds at this site.

As in all options in the Central Market, the Madison VAMC will continue to provide a broad spectrum of ambulatory services including ambulatory surgery. In Option G, Madison is projected to accommodate 371,774 clinic stops and 37,914 dental CTVs in FY 2010.

- Tomah.** In Option G, as in Options E and F, Tomah maintains its primary mission of providing long-term care services. However, in this case, because 75 nursing home care beds are relocated to Madison, the number of total beds allocated to Tomah drops from 248 beds in Options E and F, to 173 total beds in Option G.

Allocated are 173 beds including: 82 nursing home care beds, 45 long-term psychiatric beds, 31 residential rehabilitation beds, 8 acute medical beds, and 7 acute psychiatric beds. The projected surgical workload of four beds is provided at Madison when feasible.

Option G would be more cost-efficient if moving 75 nursing home beds from Tomah to Madison facilitated the closure of a building at Tomah. However, as this is not the case, no net savings have been realized by relocating those nursing home beds.

In this option, Tomah will continue to supply ambulatory primary care services as well as a limited supply of specialty services. For most specialty services, however, veterans will have to travel to Madison. As noted earlier, there are some access issues in this arrangement. With better integration between Madison and Tomah, some of these issues may be addressed, but the distance between the two facilities will present an ongoing challenge. A telemedicine program may help to some degree but will not solve the problem.

In this option, Tomah is projected to have 161,460 clinic stops and 46,984 dental CTVs.

OPTION G—SUMMARY

- Milwaukee is renovated and provides a similar range of services as today.
- Madison acquires 75 nursing home beds from Tomah that, in addition to its acute beds, brings the Madison facility to full occupancy.
- Tomah provides the same spectrum of services, although with a reduced number of beds.
- All current sites maintain active ambulatory care services.
- There is no routine contracting in the more remote submarkets.
- Approximately 80 percent of enrollees are within the CARES program access standard for specialized ambulatory care and acute inpatient care.
- New CBOCs are in Green Bay, Wisconsin Rapids, and Freeport.

CENTRAL MARKET		Inpatient					Extended Care					Bed Total	Contract Beds	VA Beds	
Submarket	Inpatient Service Site	Medical	Surgical	Acute Psych	SCI	Blind Rehab	RRTP	DOM	SCI RCF	Long-term Psych	NHCU				
Milwaukee	Milwaukee VAMC	51	24	26	38			318			80	537		537	
Madison	Madison VAMC	30	18	14			9				75	146		146	
LaCrosse	Private Sector											0	0		
	Tomah VAMC	8		7			31			45	82	173		173	
Wisc. Rapids	Private Sector											0	0		
Green Bay	Private Sector											0	0		
Madison West	Private Sector											0	0		
Service Totals		89	42	47	38	0	40	318	0	45	237	856			
<i>Subtotal</i>	Cat. 1-6	84	39	45	36	0	39	298	0	43	226	810			
	Cat. 7	5	3	2	2	0	1	20	0	2	11	46			
Market Total		216					640					856			

*The Central Market – Option G***Scalability**

This option has the capacity to adapt to unpredictable events that cause large increases in acute workload, but very little capacity to adjust to decreases in workload. Milwaukee has a maximum capacity of 114 acute beds of which 101 are used in this option. Madison could generate more acute capacity in the future by moving nursing home care beds back to Tomah or into the community. This option would supply an additional 75 beds beyond the 13 beds at Milwaukee to provide upward scalability. Since there is no Enhanced Use agreement or private sector contracting, there is also no downward scalability of acute beds (see Chapter 8, Sensitivity Analysis, Section 8.1).

Feasibility

Option G is not dependent on third-party negotiation. There are no obvious barriers to implementation of this option.

Portfolio Level Impacts

Exhibit 5-10 briefly summarizes the impacts of Option G on VA's capital asset portfolio in the Central Market.

Exhibit 5-10. Portfolio Level Impacts of Option G

FACILITY	REALIGNMENT OF MISSION/UTILIZATION		
	CURRENT	PROPOSED	IMPACT ON CAPITAL ASSETS
Milwaukee	<ul style="list-style-type: none"> Acute Medicine, Surgery and Psychiatry Services SCI Domiciliary Nursing Home Care Ambulatory Care Clinic 	<ul style="list-style-type: none"> Acute Medicine, Surgery and Psychiatry Services SCI Domiciliary Nursing Home Care Ambulatory Care Clinic New CBOC in Green Bay 	<ul style="list-style-type: none"> Renovation of acute care ward (Building 111) Renovation of Spinal Cord Injury wards A and C (Building 111) Renovation of nursing home care wards (Building 111)
Madison	<ul style="list-style-type: none"> Acute Medical and Surgical Services Residential Rehab Ambulatory Care Clinic 	<ul style="list-style-type: none"> Acute Medicine, Surgery and Psychiatry Services Residential Rehab Nursing Home Care Ambulatory Care Clinic New CBOC in Freeport 	<ul style="list-style-type: none"> Renovation of acute care wards (Building 1) Renovation of nursing home care ward (Building 1)
Tomah	<ul style="list-style-type: none"> Acute Medicine and Psychiatry Services Residential Rehab Long-Term Psychiatry Nursing Home Care Ambulatory Care Clinic 	<ul style="list-style-type: none"> Acute Medicine and Psychiatry Services Residential Rehab Long-Term Psychiatry Nursing Home Care Ambulatory Care Clinic New CBOC in Wisconsin Rapids 	<ul style="list-style-type: none"> Renovation of med/surg ward (Building 400) Renovation of mental health ward (Building 408) Renovation of psych rehab beds (Building 404) Renovation of nursing home care (Buildings 402, 403, 406)

5.5 IN THE VERY LARGE AND SPARSELY POPULATED NORTHERN MARKET, THE ISSUES ARE WHETHER TO RELY MORE ON THE PRIVATE SECTOR TO HELP IMPROVE ACCESS AND WHETHER TO RETAIN THE EXISTING VAMC.

Market Description

The Northern Market is largely composed of Michigan's sparsely populated Northern Peninsula and is projected to be home to 15,933 enrollees in 2010. Geographically the largest market in the VISN (see Map 8. VISN 12: Northern Market), the Iron Mountain VAMC, the only VA facility in this rural area, is located roughly in the geographic center of the market. We have divided the Northern Market into six submarkets based on their distance from the Iron Mountain VAMC and their proximity to other population centers, albeit small ones. Each submarket contains or is within close proximity to, a VA CBOC.

Option Overview. The Northern Market is unique because it is very rural and has only one VAMC, which limits the number of viable options. We have developed two options for the Northern Market—Options H and I. Option H is distinguished by the proposal that VA purchase inpatient and specialty outpatient services in submarkets more than 90 to 120 minutes from the Iron Mountain VAMC. Option I is identical except that no contracting is provided in remote submarkets. Consequently, the Iron Mountain VAMC is allocated additional beds and ambulatory visits. In both options, Iron Mountain VAMC is retained. Iron Mountain acts as a potential “safety net” for the veteran in the sense that in rural areas, small community hospitals are vulnerable to closure. Since the future of those hospitals is unpredictable, this VAMC may become important in this regard.

5.5.1 Option H leverages private sector capacity to enhance access and augments service provided by existing VAMC.

In Option H the Iron Mountain VAMC provides 63 beds distributed as follows: 48 nursing home beds, 8 medical beds, and 7 residential rehabilitation beds. A total of 22 medical/surgical acute beds and specialty ambulatory services are purchased in the remote submarkets that are more than 90 to 120 minutes from the Iron Mountain VAMC.

Description and Discussion

The Iron Mountain VAMC is located in the town of Iron Mountain, MI. Though the facility is in good condition, some renovation is required. Following the renovation, a total of 92 beds will be available at this facility. One of the unique features of the Iron Mountain VAMC is its telemedicine program, one of the most sophisticated and extensive telemedicine programs in the United States. Through telepsychiatry the Iron Mountain VAMC has been able to bring psychiatric services to every CBOC in the expansive Northern Market, a claim no other CBOC network in VISN 12 can make. In addition, Iron Mountain provides sophisticated teleradiology and telepathology programs that are operated in conjunction with its partner, the Milwaukee VAMC. Replicating this innovative

The Northern Market – Option H

telemedicine model may prove effective in bringing a greater array of services to all CBOCs in this VISN and elsewhere. It may also provide the foundation for telemedicine-assisted home visits in the future.

The Northern Market is projected to be home to approximately 15,933 enrolled veterans in FY 2010. These veterans are projected to generate demand for 20 medical beds and 10 surgical beds.

Option H provides services, either VA or community-based, within each respective submarket based on projected workload. The Iron Mountain Submarket generates demand for eight acute medical beds; thus, those beds are allocated to the Iron Mountain VAMC. The other five submarkets generate a need for an additional 22 medical/surgical beds, and these, and specialty ambulatory services are purchased in the private sector.

Each of these submarkets contains, or is close to, a CBOC. CBOCs will continue to provide primary care and telemedicine services. However, a CBOC may also maintain a relationship with the designated private sector contractor in that area. In addition to referring patients to that provider, the CBOC may provide case management services. The case management function serves to assist in the management of the interaction between the veteran and the private sector, as well as help VA ensure quality service from the designated private sector partners. Though this is an implementation issue beyond the scope of this study, it is helpful to imagine how this arrangement might work.

It is worth noting that the projected demand for 30 medical and surgical beds in FY 2010 is higher than the 21 medical and surgical beds provided today in the Northern Market—a paradoxical scenario given the projected decline in enrollment. However, the FY 2020 projected demand assumes adequate access. With the great distances veterans have to travel to the Iron Mountain VAMC, one might hypothesize that today's demand is suppressed. If current barriers to access were removed, demand in FY 2000 would likely be higher than the projected demand in FY 2010.

We considered closing acute inpatient services at Iron Mountain in this option, but decided against it for a number of reasons. First, unlike the Central Market, there is a more limited number of private sector hospitals in this very rural region, many of which are quite small. As small rural hospitals are often financially vulnerable, it is difficult to predict which hospitals will still be around in 5 or 10 years. Likewise, without further due diligence it is difficult to assess the quality of these institutions. We believe that the Iron Mountain VAMC provides an important safety net for veterans in this region. And, given the commitment to long-term care at Iron Mountain, the incremental cost of providing additional acute medical beds is relatively small, especially when weighed against the benefits.

Two possible opportunities would leverage VA's assets in this region. The first would be to provide an Enhanced Use arrangement to construct an assisted living facility on the Iron Mountain VAMC campus. This possibility was presented and advocated by VA management during our site visit. There was a strong sense that the "independent" culture of that region was more likely to embrace assisted living than additional nursing home care. The notion remains speculative until further market research can be done and a private sector developer enticed.

The second opportunity involves selling telemedicine services. Some remote submarkets may have a shortage of certain specialists even in the private sector, and VA’s CBOC-based telemedicine network may offer enhanced access to specialty providers for community patients as well as for veterans. Likewise, small rural hospitals may benefit from the VA teleradiology and telepathology network. This network could improve quality while lowering the cost of radiology and pathology services to small private sector hospitals. While this also remains speculative and a formal proposal is beyond the scope of this project, we think such a venture is worthy of further analysis. At the very least it demonstrates the added potential for sharing resources between VA and the private sector in attempting to meet the challenges of medical care in very rural environments.

The Iron Mountain facility is projected to accommodate 115,518 clinic stops and 24,234 dental CTVs in FY 2010.

OPTION H—SUMMARY

- A limited number of acute beds (26) and specialty ambulatory services are purchased in the community for patients in remote areas.
- Iron Mountain will house 48 nursing home beds, 8 medical beds, and 7 residential rehabilitation beds.
- The unique telemedicine function at Iron Mountain continues.
- Approximately 83 percent of enrollees are within the CARES program access standard for specialized ambulatory care and acute inpatient care.
- New CBOC is built in Gladstone/Delta County.

NORTHERN FRONTIER		Inpatient					Extended Care					Bed Total	Contract Beds	VA Beds
Sub Market	Inpatient Service Site	Medical	Surgical	Acute Psych	SCI	Blind Rehab	R RTP	DOM	SCI RCF	Long-term Psych	NHCU			
Iron Mountain	VAMC	8					7				48	63		63
Marquette	Private Sector	2	5	2								9	9	
Rhineland	Private Sector	5	2	1								8	8	
Sault Ste Marie	Private Sector	1	1	1								3	3	
Hancock	Private Sector	1	1									2	2	
Iron Wood	Private Sector	2	1									3	3	
NE Wisc.	Private Sector	1										1	1	
Service Totals		20	10	4	0	0	7	0	0	0	48	89	26	63
Subtotal	Cat. 1-6	19	9	4	0	0	7	0	0	0	46	85		
	Cat. 7	1	1	0	0	0	0	0	0	0	2	4		
Market Total		34					55				89			
VISN Service Totals		20	10	4	0	0	7	0	0	0	48	89	26	63

Scalability

This option has the ability to adapt to unpredictable events that cause large increases or decreases in acute workload. The principal source of scalability is derived from the contracting provision in this option. If there was an increase in demand, additional beds could be contracted as the community appears to have substantial excess capacity (upward scalability). For a dramatic decrease in demand, this demand could be accommodated by decreasing the number of contracted beds (downward scalability) (see Chapter 8, Sensitivity Analysis, Section 8.1).

*The Northern Market – Option H***Feasibility**

Option H proposes contracting a limited number of acute beds and specialty ambulatory care services with the private sector in order to improve access to veterans who live in remote areas. Implementation will require that VA develop policy guidance for determining eligibility and negotiating and monitoring contracts.

Portfolio Level Impacts

Exhibit 5-11 briefly summarizes the impacts of Option H on VA's capital asset portfolio in the Northern Market.

Exhibit 5-11. Portfolio Level Impacts of Option H

MEDICAL CENTER	REALIGNMENT OF MISSION/UTILIZATION		
	CURRENT	PROPOSED	IMPACT ON CAPITAL ASSETS
Iron Mountain	<ul style="list-style-type: none"> Acute Medicine and Surgery Residential Rehab Nursing Home Care Ambulatory Care Clinic 	<ul style="list-style-type: none"> Acute Medicine Residential Rehab Nursing Home Care Ambulatory Care Clinic New CBOC in Delta County/Gladstone 	<ul style="list-style-type: none"> Renovation of acute care wards (Building 1) Renovation of nursing home care wards (Building 1) Activation of CBOC

5.5.2 Option I emphasizes the use of the existing VA facility.

In Option I the Iron Mountain VAMC provides 89 beds distributed as follows: 48 nursing home, 20 medical, 10 surgical, 7 residential rehabilitation, and 4 psychiatric. The number of beds are greater than in Option H because of no contracting in this option and the Iron Mountain VAMC must supply all these services.

Description and Discussion

In Option I, as in Option H, the Iron Mountain VAMC undergoes renovation, leaving space for 92 beds. Iron Mountain also continues its function as a telemedicine hub in collaboration with the Milwaukee VAMC.

Option I is identical to Option H except that, as today, no provision has been afforded for routine contracting for inpatient and specialty care in remote submarkets. Hence, all the care that was distributed to the remote submarkets in Option I must now be concentrated at the Iron Mountain VAMC. In FY 2010, Iron Mountain is projected to provide 20 medical beds in Option I. Oddly, the same number is provided today despite a decline in the enrollee population. This paradoxical result can be explained by the hypothesis that current demand is artificially suppressed by the long travel times required to access the Iron Mountain VAMC.

The difference is even more pronounced for surgical needs. Today, only two beds are allocated to the surgical service; paradoxically, it is projected that 10 will be needed in FY 2010. This may result in part from artificially suppressed demand related to access issues as described above. However, it may also be related to quality concerns that come with a low-volume surgical service and a tendency to refer cases elsewhere. So, despite the actuarial bed allocation reflected in this option, access issues and quality concerns may prevent the Iron Mountain VAMC from filling these beds in FY 2010. If the surgical service remains as small as it is today, we would recommend discontinuing inpatient surgery in the future. That service could be purchased and elective cases could be transported to Milwaukee where there is more than ample excess capacity.

As described in greater detail in Option H, there may be an opportunity to develop an assisted living facility at the Iron Mountain VAMC through an Enhanced Use arrangement. There may also be an opportunity to sell VA telemedicine services to provide clinical consultations as well as teleradiology and telepathology services in this very rural region.

In Option I, there is a projected demand for 204,252 ambulatory clinic stops in Iron Mountain in 2010.

OPTION I—SUMMARY

- Iron Mountain has 89 beds: 48 nursing home; 20 medical; 10 surgical; 7 residential rehabilitation; 4 psychiatric.
- There is no routine contracting in the more remote submarkets.
- Iron Mountain will continue as a telemedicine hub.
- Approximately 35 percent of enrollees are within the CARES program access standard for specialized ambulatory care and acute inpatient care.
- A new CBOC exists in Gladstone/Delta County.

NORTHERN FRONTIER		Inpatient					Extended Care					Bed Total	Contract Beds	VA Beds
Submarket	Inpatient Service Site	Medical	Surgical	Acute Psych	SCI	Blind Rehab	RRTP	DOM	SCI RCF	Long-term Psych	NHCU			
Mountain	VAMC	20	10	4			7				48	89		89
Marquette	Private Sector											0	0	
Rhineland	Private Sector											0	0	
Sault Ste Marie	Private Sector											0	0	
Hancock	Private Sector											0	0	
Iron Wood	Private Sector											0	0	
NE Wisc.												0	0	
Service Totals		20	10	4	0	0	7	0	0	0	48	89	0	89
Subtotal	Cat. 1-6	19	9	4	0	0	7	0	0	0	46	85		
	Cat. 7	1	1	0	0	0	0	0	0	0	2	4		
Market Total		34					55				89			

Scalability

This option has the limited capacity to adapt to unpredictable events that cause large increases or decreases in acute workload. In this option virtually all of Iron Mountain’s capacity is leveraged,

The Northern Market – Option I

thereby limiting upward scalability. In an extreme circumstance, some or all the nursing home beds could be moved into the community to create more acute capacity. However, the issue of access from remote parts of the Northern Market would dampen utilization. Because of no Enhanced Use agreement or private sector contracting, there is no downward scalability. (See Chapter 8 Sensitivity Analysis, Section 8.1).

Feasibility

Option I is not dependent on third-party negotiations. There are no barriers to implementation of this option.

Portfolio Level Impacts

Exhibit 5-12 briefly summarizes the impacts of Option I on VA's capital asset portfolio in the Northern Market.

Exhibit 5-12. Portfolio Level Impacts of Option I

MEDICAL CENTER	REALIGNMENT OF MISSION/UTILIZATION		
	CURRENT	PROPOSED	IMPACT ON CAPITAL ASSETS
Iron Mountain	<ul style="list-style-type: none"> Acute Medicine and Surgery Residential Rehab Nursing Home Care Ambulatory Care Clinic 	<ul style="list-style-type: none"> Acute Medicine, Surgery and Psychiatry Residential Rehab Nursing Home Care Ambulatory Care Clinic New CBOC in Delta County/Gladstone 	<ul style="list-style-type: none"> Renovation of acute care wards (Building 1) Renovation of nursing home care wards (Building 1) Activation of CBOC

5.6 COMMUNITY-BASED OUTPATIENT CLINICS (CBOCS) PROVIDE AN ESSENTIAL COMPONENT OF THE INFRASTRUCTURE IN DELIVERING PRIMARY CARE, WHICH REMAINS CONSTANT THROUGH ALL SDOS.

In the preceding presentation of the SDOs the changes at the major facilities have dominated the discussion. In many ways this is appropriate since the decisions made regarding these components of supply will have significant effects on patterns of care, capital investments, and affiliations, among other things. The placement of CBOCs does not have the same ramifications. Furthermore, the analysis of primary care needs and CBOC allocations are the same in all the options.

CBOCs are an extremely important component in the tiered system of care. They provide outreach into the community and extend accessibility. While most CBOCs tend to emphasize medical services, they also provide an infrastructure upon which to extend primary mental health services. Rosenheck found that counties in which new CBOCs included a specialty mental health component, there was almost a three-fold increase in the proportion of veterans using mental health services

compared to other counties (R. Rosenheck, *Health Services Research* Vol. 35, No. 4, Oct. 2000). Leveraging CBOCs to improve access to mental health services is an important future objective.

However, the majority of primary care is still provided at the VAMCs, which is partly because some are located in major population centers. But it is also because the medical center provides a broader array of diagnostic and treatment services and offers “one-stop shopping.” While CBOCs will never provide the same breadth of services, technology enhancements may enable them to broaden their current spectrum. New advances in blood testing promise to move relatively sophisticated tests out of hospitals and reference labs and into the office. Telemedicine may also bring the services of the subspecialist to the CBOC with increasing frequency. Iron Mountain has had very good success in providing mental health services in this way. Broadening the spectrum of services at CBOCs will help shift primary care services away from VAMCs and closer to the veteran.

5.7 WE DISTRIBUTED NEW CBOCS TO IMPROVE PRIMARY CARE ACCESS IN THE CENTRAL AND NORTHERN MARKETS.

Our goal was to distribute primary care supply to maximize access. After an analysis of workload projections and existing supply we determined that 93.5 percent of enrollees in the Southern Market would meet that standard. However, in the more rural Central Market only 78 percent would meet that goal. We have therefore recommended that three CBOCs be added in the Central Market at Green Bay, WI, Wisconsin Rapids, WI, and Freeport, IL. With the addition of these new access points 83 percent of enrollees will be within 30 minutes of a primary care facility. The extremely rural nature of the Northern Market presents special challenges. Fifty-eight percent of enrollees are within the 30-minute access standard. However, the distribution of enrollees is so sparse that there is only one population cluster in which adding a CBOC would have an appreciable impact. Thus, we proposed adding a new CBOC at Gladstone/Delta County. With the addition of this CBOC 64 percent of enrollees would be within 30 minutes of a primary care facility. The primary care coverage map shows the location of current and proposed CBOCs and the geographic areas they cover (see Map 9. VISA 12: Primary Care Submarkets).

5.8 PRELIMINARY BENEFITS OF EACH SDO HAVE BEEN IDENTIFIED FOR INFORMATIONAL PURPOSES.

The role of a qualitative benefits analysis is to detail how an investment decision enhances the organization’s mission. Some situations do not lend themselves to direct, quantitative measurement of benefits. For the purposes of this report, qualitative benefits are defined as benefits expressed in terms of improved mission performance, improved decision making, or more reliable or usable information. Because many public goods are difficult to quantify in dollar units, intangible benefits are vital to understanding the total implementation outcome. Using the VA FY 2003, Capital Investment Application for Facility Projects, Sections 1 and 2, we have identified these benefits related to each proposed SDO by market. These benefits, although difficult to assess, should be addressed qualitatively in this report.

Preliminary Benefits

Qualitative benefits from the CARES options include both the direct benefits associated with increased functionality and technical capabilities and indirect benefits associated with aligning the strategic direction of the healthcare systems with VHA goals and the One-VA. Since many of the benefits are primarily functional in nature, they define the scope of the project and thus will be realized regardless of the alternative selected.

Based on analysis of various elements and an understanding of the underlying strategic goals and direction of VA's healthcare services, a list of potential benefits was developed for each option. The

- Improve customer service
- Support a high-performing workforce
- Align with the strategic direction of the VA.

For each of the options, the degree of impact has been determined.

5.8.1 Customer service is the first qualitative benefit identified.

There are several benefits of improved customer service for all of the options. For the purposes of CARES, customer service focuses on patients as the primary customer. Benefits associated with improvement in customer service include quality, reduction in waiting time, increase in new customers, increase in benefits, and increase in access to existing customers.

Improvements in Quality

One main focus of the CARES study was to develop options that improve the quality of service to the veteran. Each option enhances quality, but the options vary in the degree of the improvement. The five areas for which the options improve quality of service and care are—

- *Improving environment of care*
- *Increasing inpatient surgical care.* Each option provides an increase in inpatient surgical care services.
- *Increasing ambulatory care.* For all options, there will be an increase in the ambulatory care services provided at each facility.
- *Compliance with ADA and JCAHO standards for patient privacy.* In each option, all facilities will be renovated to comply with ADA and JCAHO standards.
- *Enhancing patient privacy.* Each option provides for an improvement in the level of patient privacy. For facilities with inpatient beds, the number of rooms with private bathrooms will increase.

Reduction in Waiting Time

Waiting time for scheduling appointments or to see a provider are concerns expressed by veterans. Each of the options will reduce these waiting times in the following ways:

- *Increasing ambulatory care services.* Each option increases the number of ambulatory care services provided, thus reducing wait times for assessing ambulatory care services
- *Increasing throughput.* The options will increase overall throughput of services due to maximum utilization of space and provider time, which increases efficiency and benefits the patient.

Increase in Access to New Customers

By developing options based on a market-driven approach, access is improved by positioning facilities within access standards and increasing services to patients. Improved access to DoD customers is achieved in the Southern Market with the proposed sharing opportunities with the Great Lakes Navy Hospital and the North Chicago VA.

- Positioning of access to previously underserved
- Providing access to DoD customers.

Increase in Benefits

Numerous benefits have been achieved for the veteran patient including the modernization of several facilities, the addition of more domiciliary beds, and the enhancements to both the SCI/D and blind rehabilitation centers.

- New modernized facilities
- Addition of domiciliary beds
- New blind rehabilitation center
- Upgraded SCI/D facilities.

Increase in Access to Existing Customers

By developing options based on a market-driven approach, access is improved by positioning facilities within access standards and increasing services to patients. The greatest improvement in access is realized in options where we recommend contracting out for services or building new CBOCs in the Central Market and Northern Submarket. Access to existing customers will improve by increasing the capacity in ambulatory care and surgery service that—

- Bring services closer to existing customers
- Provide new CBOCs.

5.8.2 Benefits promoting high performing workforce are also identified.

The realignment of healthcare services and delivery not only affects veterans who use VA healthcare services but also the employees who work in each of the facilities. Benefits associated with a high-performing workforce have been assessed in the following areas—recruitment, retention, and employee morale.

*Preliminary Benefits***Recruitment**

In many of the options, the facility infrastructure would be improved and modernized, and the equipment would be updated providing for a more attractive working and learning environment to attract new employees into the VA system.

Retention

In many of the options the facility infrastructure would be improved and modernized, and the equipment would be updated providing for a more attractive and improved learning environment for retaining employees.

Employee Morale

All of our options introduce some form of change in the delivery or location of services. Change will affect employees differently but most changes are associated with a negative impact on morale.

5.8.3 Strategic alignment benefits promote other VA missions.

The CARES options directly support the strategic alignment goals as defined by the VA's Strategic Plan FY 2001–FY2006. Many of the options support the goals that—

- Restore the capability of disabled veterans
- Honor, serve, and memorialize veterans
- Improve the public health and socioeconomic well-being
- One-VA.

Restore Capability of Disabled Veterans and Improve Quality of Life

All options address the need to maximize the physical, mental, and social functioning of disabled veterans including the special populations of veterans by assessing their needs and coordinating the delivery of healthcare, benefits, and services. The legislative capacity levels that guide the appropriate planning levels for beds and clinical evaluation determined the appropriateness for the clinical need for those who are disabled.

Honor, Serve, and Memorialize Veterans

All options improve services to veterans including special populations of veterans through a healthcare system characterized by convenient access, high quality, satisfied patients, and cost efficiency. These services include:

- Improved access
- Improved environment of care
- Increased satisfaction of patients.

The VA's missions and veterans preferences were used as guiding principles in the development of the options.

Public Health and Socioeconomic Well-Being

The VA's mission, including research, medical education, and DoD contingency were used as guiding principles, when applicable, to develop the options, to include:

- Advanced research
- Medical education
- DoD contingency.

One-VA

In all options, the collocation opportunities of VBA, NCA, and other non-VHA tenants were examined. In the Southern Market, collocation opportunities (e.g., Regional Office or National Cemetery) with VBA are included in the options.