

**VISN:** #23, VA Midwest Health Care Network

**Facility Name:** VA Central Iowa Health Care System, Knoxville Division

**Affected Facilities:** VA Central Iowa Health Care System, Des Moines Division

## **A. Summary and Conclusions**

### a. **Executive Summary:**

VISN 23 proposes to realign and consolidate all inpatient operations, including nursing home care, at the Des Moines division of the VA Central Iowa Health Care System by shifting workload from its other division at Knoxville.

The following analysis focuses on realigning the workload currently provided in the 226-bed **nursing home care unit** at Knoxville to Des Moines. Other inpatient workload realignment and operations are included in the cost analysis data but are not the focus of the discussion.

The preferred alternative is to realign nursing home care workload by constructing a new 120-bed nursing home care unit on the Des Moines campus and contracting the remaining workload in community nursing homes. The existing nursing home building at Knoxville would be divested or demolished at some point in the future after the new facility at Des Moines is operational.

While the model did not consider referrals to state veteran homes, the practice would continue with the same expected success as in the past. The Iowa Veterans Home in Marshalltown, IA is a valuable resource, accepting a large percentage of veteran referrals.

The preferred alternative is alternative #1 in the following narrative and attached cost analysis. Alternative #1 is the same concept presented in the original market plan; however, an error was discovered in the original market plan IBM data entry. As a result, the original market plan was not considered as a viable alternative. Another alternative, called alternative #2, was to build a new 160-bed nursing home at Des Moines. An analysis of the cost figures found the 120-bed nursing home more cost-effective than the 160-bed facility. Thus, alternative #2 was discarded as a viable option.

The alternative to contract 100 percent of the workload was also discarded even though the cost analysis found it to be more cost effective than constructing a new nursing home care facility. Contracting 100 percent of the workload is not realistic. Community nursing home placement is difficult for veterans with special needs. A veteran requiring a locked unit, wander guard unit, psych unit, residential care facility, or one with medical or behavioral concerns can be difficult if not impossible to place. When placement options

are available for these veterans, there is often a waiting list. Therefore, while some community nursing home contracting is preferred, VA operated alternatives are necessary.

The most viable option is to build a new 120-bed nursing home care unit on the Des Moines campus and shift the workload from Knoxville. The complexity of managing the care of patients will be strongly enhanced through the consolidation of bed services to a single campus operating both inpatient medical and surgical beds along with acute psychiatry and nursing home care in contiguous buildings.

The following discussion and analysis will justify this conclusion.

b. Current environment:

The Knoxville Division of the VA Central Iowa Health Care System is located in the city of Knoxville in south central Iowa, 45 miles southeast of Des Moines. Nearly 8,000 residents live in the rural Iowa community. Many residents work at either the VA Medical Center or the 3M Corporation, the two major employers. The VA Medical Center is located within the city limits in a residential area. The main transportation between Knoxville and Des Moines is by car over a highway undergoing improvements to become a four-lane road.

The existing Knoxville site is a large campus style facility consisting of 43 buildings spread across 162 acres. The original buildings were constructed in the early 1900's as a School for the Blind and later used as a State Hospital for Inebriates. The facility was purchased from the Public Health Service in 1923 and patient care buildings were constructed during the 1930's and 1940's. The existing buildings are structurally sound, but will require a considerable capital expenditure to bring up to current standards. Existing utility systems such as water distribution, steam distribution, ventilation systems, and boiler plant require total replacement. Even with total renovation, the external dimensions and layout of the buildings do not lend to an efficient layout suited to modern inpatient care. Patient safety is compromised due to an inefficient patient space layout. The buildings used for the existing Nursing Home beds were constructed at an elevation where the lower level is approximately five feet below grade. Therefore, engineering installed extensive ramping to achieve accessibility. There are no inpatient medical or surgical beds on the Knoxville campus.

c. Workload Summary:

The table on page 3 presents the workload summary of the alternatives.

NAME OF FACILITY BEING STUDIED: Knoxville

NAME OF FACILITY BEING STUDIED: Knoxville					Short description: Preferred Scenario 120 NHCU at Des Moines and contract.			
Workload or Space Category	2001 ADC for IP	Baseline workload from Millman for beds & stops	2012 Projected Wkld (beds, stops)	2022 Projected Wkld (beds, stops)	% to be transferred	Year to begin transfer	Receiving Facility Name	Receiving Facility % contracted out
Inpatient Medicine	11	13	9	7				
Inpatient Surgery	2	2	5	0				
Inpatient Psych	11	17	16	12				
Inpatient Dom	33	35	35	35				
Inpatient NHCU	180	511	511	511	24	2007	Des Moines	76
Inpatient PR RTP		0	0	0				
Inpatient SCI		0	0	0				
Inpatient BRC		0	0	0				
Outpatient Primary Care		10929	19884	15708				
Outpatient Specialty Care		18562	19329	15991				
Outpatient Mental Health		58040	58169	57977				
Ancillary & Diagnostics		24373	27600	22901				
Research SPACE	N/A		N/A	N/A				
Admin SPACE	N/A		N/A	N/A				
Other SPACE	N/A		N/A	N/A				
120/511=24% inhouse								
NAME OF FACILITY BEING STUDIED: Knoxville					Short description: 160 NHCU at Des Moines and contract			
Workload or Space Category	Baseline Wkld	Baseline workload from Millman for beds & stops	2012 projected Wkld	2022 Projected Wkld	% to be transferred	Year to begin transfer	Receiving Facility Name	Receiving Facility % contracted out
Inpatient Medicine	11	13	9	7				
Inpatient Surgery	2	2	5	0				
Inpatient Psych	11	17	16	12				
Inpatient Dom	33	35	35	35				
Inpatient NHCU	180	511	511	511	31	2007	Des Moines	69
Inpatient PR RTP		0	0	0				
Inpatient SCI		0	0	0				
Inpatient BRC		0	0	0				
Outpatient Primary Care		10929	19884	15708				
Outpatient Specialty Care		18562	19329	15991				
Outpatient Mental Health		58040	58169	57977				
Ancillary & Diagnostics		24373	27600	22901				
Research SPACE	N/A		N/A	N/A				
Admin SPACE	N/A		N/A	N/A				
Other SPACE	N/A		N/A	N/A				
160/511=31% inhouse								
NAME OF FACILITY BEING STUDIED: Knoxville					Short description: Contract entire workload			
Workload or Space Category	Baseline Wkld	Baseline workload from Millman for beds & stops	2012 projected Wkld	2022 Projected Wkld	% to be transferred	Year to begin transfer	Receiving Facility Name	Receiving Facility % contracted out
Inpatient Medicine	11	13	9	7				
Inpatient Surgery	2	2	5	0				
Inpatient Psych	11	17	16	12				
Inpatient Dom	33	35	35	35				
Inpatient NHCU	180	511	511	511		2007		100
Inpatient PR RTP		0	0	0				
Inpatient SCI		0	0	0				
Inpatient BRC		0	0	0				
Outpatient Primary Care		10929	19884	15708				
Outpatient Specialty Care		18562	19329	15991				
Outpatient Mental Health		58040	58169	57977				
Ancillary & Diagnostics		24373	27600	22901				

d. Proposed Realignment:

The following proposed realignment discussion focuses on the nursing home realignment from the Knoxville division to the Des Moines division of the Central Iowa Health Care System. Under the realignment, nursing home care workload will shift from 60-year old buildings, originally designed for other purposes on the Knoxville VA campus, to a new 120-bed VA nursing home care unit proposed in the Iowa CARES market plan. The balance of the projected workload will be provided through referrals to a large 768-bed state veterans home in Marshalltown, IA or through contracts with community nursing homes. The Milliman model projected enrolled veterans would require nursing home capacity for 511 beds through year 2022.

Currently, the Knoxville 226-bed VA nursing home is the only VA nursing home serving veterans in the Iowa market area. The Iowa City VAMC and the Des Moines division do not operate VA nursing home beds. The Knoxville nursing home accepts referrals from throughout the five state area of VISN 23 as well as other VISNs.

The State of Iowa licenses 421 nursing facilities operating a total of 32,193 beds. Of the total nursing facilities, 85 are Medicaid certified, 326 are Medicare/Medicaid certified and 10 are non-certified facilities. It is not known how many of the nursing facilities would meet VA standards for placing veterans needing nursing home care, nor is it known how many would accept VA referrals unless a survey was completed. Contract community nursing homes do not always address the needs of special emphasis veteran groups such as the seriously mentally ill or those with special rehabilitation needs due to service connected injuries.

*Travel times:* Travel times to access VA nursing home care will be improved under the realignment and construction of 120-bed nursing home in Des Moines. Des Moines is the largest city in Iowa, and as such, is home to the largest number of veterans. Veterans and their families' travel distance to a nursing home unit at Des Moines will be less than 45-mile drive to the current nursing home unit at Knoxville.

*Quality:* A newly constructed VA nursing home care unit would offer a contemporary building designed to provide nursing home care as compared to the current building that has deficiencies. The Knoxville nursing home wards do not meet community standards and privacy standards are minimally met. Communal bathrooms are common as are four-bed wards. Only a small portion of the nursing home is modern.

*Community:* The city of Knoxville may be impacted by the loss of inpatient operations; however, a VA presence will remain through operation of a community based outpatient clinic. Services would include primary care and significant mental health services to address the special needs of the small community of veterans who relocated to the Knoxville community for the VA's traditional behavioral health mission.

*Staffing:* The majority of staff providing direct patient care at the Knoxville nursing home would shift to the Des Moines division once the new nursing home is built and operational. The Knoxville and Des Moines divisions are within calculated commuting distances according to VA human resource standards. Many of the staff already commute the 45 miles between the two campuses. The non-direct care staff who maintain the physical structure at Knoxville would be reduced through attrition.

*Research and Academic Affiliations:* All of VA Central Iowa Health Care System's research programs are located the Des Moines division. As a result, the realignment's impact on research would have a neutral if not a positive impact. Academic affiliations would be positively impacted by the realignment of nursing home care to Des Moines due to the improved access to patients for resident and medical student learning experiences.

*Cost Effectiveness:* Major construction funding would be necessary to build a new facility designed especially for nursing home care. According to the CARES IBM model, construction costs for the new nursing home are estimated to at \$8 million. A similar amount would be spent if the existing nursing home in Knoxville was renovated to current standards of care. The cost information presented in the cost analysis includes all costs for the Des Moines and Knoxville division in the Iowa CARES plan. The cost analysis does not focus only on the nursing home, but includes inpatient renovations at Des Moines and clinical additions planned for Des Moines and Knoxville. The cost analysis does not include the capital costs to renovate the Knoxville nursing home in the status quo option.

- Net present value for alternative #1 (120 beds) is positive at \$193,087,772.
- Life cycle costs are \$2,050,564,257.
- Total capital costs for all construction is \$31,331,241, and
- Total operating costs are \$2,129,338,775.

## **B. Analysis.**

### **Description of current programs and services environment:**

The Knoxville division of VA Central Iowa Health Care System (CIHSC) provides acute mental health bed services, inpatient rehabilitation and nursing home care services to veterans throughout the Iowa CARES market and primary care outpatient services to veterans in the central Iowa primary service area.

The current (October 2003) nursing home care unit (NHCU) demand results in an average daily NHCU census of 168.3. The census includes a 20-bed rehabilitation medicine program that accepts referrals from throughout the state of Iowa. Based on recent experience, clinical experts identified a decreasing future demand for NHCU bed services distant from where the need exists and the veteran population resides (see table of representative sample of counties on page 10). The change in demand is coupled with admissions of increasingly clinically complex cases often requiring multiple transfers to acute medicine or surgery bed sections at Des Moines and Iowa City from the Knoxville division. VA Central Iowa HCS has proposed to meet these access, quality and continuity issues through the construction of a 120-bed NHCU at the Des Moines division. The relocation will place the NHCU in the home community of the largest projected user population. It will further enhance patient outcomes by providing rapid access to acute bed care and will consolidate the entire spectrum of continuity of care in a single comprehensive care community.

The bed service mission for acute psychiatry, rehabilitation medicine and the NHCU will be transferred to the Des Moines division of VA Central Iowa HCS. The Des Moines division has historically managed all acute medicine and surgery bed services for veterans in the central portion of the Iowa Market. The realignment will occur when the new bed construction is completed. VA Central Iowa HCS will continue to maintain a medical presence in the Knoxville community through an enhanced CBOC.

*Community nursing home availability.* The state of Iowa licenses nursing facilities defined as institutions or distinct parts of institutions housing three or more individuals for a period exceeding 24 consecutive hours, whose primary purpose is to provide health-related care and services, including rehabilitation, for individuals who because of mental or physical condition, require nursing home care and other services in addition to room and board. Nursing facilities do not engage in providing treatment or care for mental illness (Chapter 135C of the Code of Iowa). The total number of nursing facilities in Iowa is 421 and the number of beds is 32,193. Of this total 85 are Medicaid certified facilities, 326 are Medicare/Medicaid certified and 10 are non-certified facilities. The occupancy rates are not known.

## Summarization of Table

The table on page 8 displays the baseline and projected workload for the nursing home care workload for the three alternative scenarios under consideration to realign workload from Knoxville to Des Moines. The nursing home care average daily census at Knoxville in FY01 was 180. The 511-bed baseline from the Milliman model for FY01 was used for 2012 and 2022 projections in the interim until VACO develops and accepts new model nursing home care projections. All three alternatives use the same baseline and projected workload. The difference between alternative #1 (120 beds) and alternative #2 (160) beds is the percentage of workload contracted with community providers. If a 120-bed nursing home was constructed at Des Moines, 76 percent of the workload would be contracted. If a 160-bed nursing home was constructed at Des Moines, 69 percent of the workload would be contracted. The third alternative is to contract 100 percent of the workload in the community. VA Central Iowa HCS would administer the program from the Des Moines division. All alternatives are proposed for year 2007.

NAME OF FACILITY BEING STUDIED: Knoxville

NAME OF FACILITY BEING STUDIED: Knoxville					Short description: Preferred Scenario 120 NHCU at Des Moines and contract.			
Workload or Space Category	2001 ADC for IP	Baseline workload from Millman for beds & stops	2012 Projected Wkld (beds, stops)	2022 Projected Wkld (beds, stops)	% to be transferred	Year to begin transfer	Receiving Facility Name	Receiving Facility % contracted out
<b>Alternate # 1</b>								
Inpatient Medicine	11	13	9	7				
Inpatient Surgery	2	2	5	0				
Inpatient Psych	11	17	16	12				
Inpatient Dom	33	35	35	35				
Inpatient NHCU	180	511	511	511	24	2007	Des Moines	76
Inpatient PR RTP		0	0	0				
Inpatient SCI		0	0	0				
Inpatient BRC		0	0	0				
Outpatient Primary Care		10929	19884	15708				
Outpatient Specialty Care		18562	19329	15991				
Outpatient Mental Health		58040	58169	57977				
Ancillary & Diagnostics		24373	27600	22901				
Research SPACE	N/A		N/A	N/A				
Admin SPACE	N/A		N/A	N/A				
Other SPACE	N/A		N/A	N/A				
120/511=24% inhouse								
<b>Alternate # 2</b>					Short description: 160 NHCU at Des Moines and contract			
Workload or Space Category	Baseline Wkld	Baseline workload from Millman for beds & stops	2012 projected Wkld	2022 Projected Wkld	% to be transferred	Year to begin transfer	Receiving Facility Name	Receiving Facility % contracted out
Inpatient Medicine	11	13	9	7				
Inpatient Surgery	2	2	5	0				
Inpatient Psych	11	17	16	12				
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Outpatient Mental Health		58040	58169	57977				
Ancillary & Diagnostics		24373	27600	22901				
Research SPACE	N/A		N/A	N/A				
Admin SPACE	N/A		N/A	N/A				
Other SPACE	N/A		N/A	N/A				
160/511=31% inhouse								
<b>Alternate # 3</b>					Short description: Contract entire workload			
Workload or Space Category	Baseline Wkld	Baseline workload from Millman for beds & stops	2012 projected Wkld	2022 Projected Wkld	% to be transferred	Year to begin transfer	Receiving Facility Name	Receiving Facility % contracted out
Inpatient Medicine	11	13	9	7				
Inpatient Surgery	2	2	5	0				
Inpatient Psych	11	17	16	12				
Inpatient Dom	33	35	35	35				
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Outpatient Primary Care		10929	19884	15708				
Outpatient Specialty Care		18562	19329	15991				
Outpatient Mental Health		58040	58169	57977				
Ancillary & Diagnostics		24373	27600	22901				

### **Travel times:**

Knoxville is located in Marion County 45 miles southeast of Des Moines, IA. Des Moines is located in Polk County, a highly populated county as compared to the surrounding area including Marion County. The Milliman model projects 21,623 nursing home bed days of care in the year 2012 for veterans residing in Polk County as compared to 4,668 bed days of care projected for veterans in Marion County. Two other counties adjacent to Marion County are Mahaska and Wapello, projected to have 1,755 and 2,913 bed days of care, respectively. Moving the nursing home to Des Moines will reduce the travel time significantly for the largest group of veterans residing in Polk County. Currently, veterans and families spend an average of 81 minutes traveling from Polk County to Knoxville in Marion County. The travel distance will be reduced for Polk County veterans but increased for veterans and families residing in Mahaska, Marion and Wapello counties. The majority of veteran users and their families; however, will have improved access if the nursing home care workload is realigned to the Des Moines campus.

The difference in travel time between alternative #1 and #2 is slight. In both scenarios, the balance of the workload would be contracted in the community. Veterans residing in the counties further from Des Moines would enjoy community nursing homes geographically closer to families than either Knoxville or Des Moines. If a 120 nursing home bed unit was constructed (preferred option), more veterans would have the option of residing in community nursing homes near their families. If the third alternative were selected, all veterans referred by VA for nursing home care would be placed in contract community nursing homes. Travel times for veterans and families would depend upon the availability of open beds in their communities. They may travel further to find community nursing home beds if beds in their own community are not available and do not meet VA standards of care.

Alternate # 1 Knoxville (120 NHCU beds at Des Moines)										
CARES Category (Dom, Specialty Care or NHCU)	County Name	FY 2012 Workload (BDOC)	Travel time from County to Knoxville	Workload to be transferred to Des Moines	Travel Time from County to Des Moines	Workload to be transferred to Facility B	Travel Time from County to Facility B	Workload to be transferred to Facility C	Travel Time from County to Facility C	New weighted Travel Time (calculated)
			Minutes	BDOC	Minutes					
NHCU	MAHASKA	1,755	36	421	90					
NHCU	MARION	4,668	0	1120	81					
NHCU	WAPELLO	2,913	72	699	92					
NHCU	POLK	21,623	81	5190	0					

Type	Current Access %	New Access %
Primary Care	46%	46%
Acute Care	42%	42%

Alternate # 2 Knoxville (160 NHCU beds at Des Moines)										
CARES Category (Dom, Specialty Care or NHCU)	County Name	FY 2012 Workload (BDOC)	Travel time from County to Knoxville	Workload to be transferred to Des Moines	Travel Time from County to Des Moines	Workload to be transferred to Facility B	Travel Time from County to Facility B	Workload to be transferred to Facility C	Travel Time from County to Facility C	New weighted Travel Time (calculated)
NHCU	MAHASKA	1,755	36	544	90					
NHCU	MARION	4,668	0	1447	81					
NHCU	WAPELLO	2,913	72	903	92					
NHCU	POLK	21,623	81	6703	0					

Type	Current Access %	New Access %
Primary Care	46%	46%
Acute Care	42%	42%

Alternate # 3 Knoxville (Contract All Care)										
CARES Category (Dom, Specialty Care or NHCU)	County Name	FY 2012 Workload (BDOC)	Travel time from County to Facility being studied	Workload to be transferred to Facility A	Travel Time from County to Facility A	Workload to be transferred to Facility B	Travel Time from County to Facility B	Workload to be transferred to Facility C	Travel Time from County to Facility C	New weighted Travel Time (calculated)
NHCU	MAHASKA	1,755	36	1,755	0					
NHCU	MARION	4,668	0	4,668	0					
NHCU	WAPELLO	2,913	72	2,913	0					
NHCU	POLK	21,623	81	21,623	0					

Type	Current Access %	New Access %
Primary Care	46%	46%
Acute Care	42%	42%

**Current physical condition of the realignment site and patient safety:**

The existing Knoxville site is a large campus style facility consisting of 43 buildings spread across 162 acres. The original buildings were constructed in the early 1900’s as a School for the Blind and later used as a State Hospital for Inebriates. The facility was purchased from the Public Health Service in 1923 and patient care buildings were constructed during the 1930’s and 1940’s. The existing buildings are structurally sound, but will require a considerable capital expenditure to bring up to current standards. Existing utility systems such as water distribution, steam distribution, ventilation systems, and boiler plant require total replacement. Even with total renovation, the external dimensions and layout of the buildings do not lend to an efficient layout suited to modern inpatient care. Patient safety is compromised due to an inefficient patient space layout. The buildings used for the existing Nursing Home beds were constructed at an elevation where the lower level is approximately five feet below grade. Therefore, engineering installed extensive ramping to achieve accessibility.

2001 Baseline Data		Knoxville, IA						
Facility Name	Campus Acreage	Original Bed Capacity (Beds)	Number of Vacant Bldgs	Number of Occupied Bldgs	Vacant Space 2001 (SF)	Average Condition Score	Annual Capital Costs *	Valuation of Campus (AEW)
Knoxville	162	320	2	41	176,581	3.7	\$5,136,639	144,000,000
Des Moines	47	85	0	19	17,881		\$3,403,553	74,000,000
Knoxville NHCU	N/A	226	N/A	2	23,449	3.49		
Des Moines NHCU		0	0	N/A	N/A	N/A		0

Quarters buildings 6, 7, and 8 at the Des Moines division were not included in the CARES data base.

**Impact considerations:**

▪ **Capital:**

Alternative #1 (construct 120 beds at Des Moines) has lower capital cost than the status quo or alternative #2 (construct 160 beds at Des Moines) with the exception of the 100 percent contract alternative and the original market plan. The original market plan, which also called for construction of 120 beds at Des Moines, is not a viable option due to a data entry error in the IBM model. The nursing home workload was not transferred to Des Moines. Alternative #1 corrects the error and transfers the workload to Des Moines. The original market plan and alternative #1 is the same scenario except for the data entry error, which created additional operating costs at Knoxville.

The 100 percent contract alternative is not a viable option due to the following considerations:

- Based on past experience, community nursing homes do not offer an equivalent community placement option for a significant portion of veterans served at VA Central Iowa HCS.

- Contract community nursing homes do not address the needs special emphasis groups such as the seriously mentally ill or those with special rehabilitation needs due to service connected injuries.
- VISN 23 would not be able to adequately address Millennium Act requirements to maintain average daily census levels if all care were contracted.
- Contract community nursing home care doesn't address VA obligation to provide medical education.
- Due to time constraints, a survey of community nursing homes was not conducted to determine availability of care. It is unknown how many meet VA's standard of care.

Capital Cost Summary	Status Quo (Plus capital)	Original Market Plan	100% Contract	Alt 1	Alt 2
<b>Facility Being Reviewed: Knoxville</b>					
New Construction	\$ -	\$ -	\$ -	\$ -	\$ -
Renovate	\$ -	\$ 1,825,114	\$ 1,825,114	\$ 1,825,114	\$ 1,825,114
Leases	\$ -	\$ -	\$ -	\$ -	\$ -
Vacant Space Demolition	\$ -	\$ 3,423,197	\$ 3,773,959	\$ 3,773,959	\$ 3,773,959
Capital Cost for Status Quo	\$ 83,917,660	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 83,917,660</b>	<b>\$ 5,248,311</b>	<b>\$ 5,599,073</b>	<b>\$ 5,599,073</b>	<b>\$ 5,599,073</b>
<b>Receiving Facility 1: Des Moines</b>					
New Construction	\$ -	\$ 20,381,042	\$ 12,171,649	\$ 20,381,042	\$ 22,779,250
Renovate	\$ -	\$ 5,351,126	\$ 5,351,126	\$ 5,351,126	\$ 5,351,126
Leases	\$ -	\$ -	\$ -	\$ -	\$ -
Vacant Space Demolition	\$ -	\$ -	\$ -	\$ -	\$ -
Capital Cost for Status Quo	\$ 55,604,107	\$ -	\$ -	\$ -	\$ -
<b>Total</b>	<b>\$ 55,604,107</b>	<b>\$ 25,732,168</b>	<b>\$ 17,522,775</b>	<b>\$ 25,732,168</b>	<b>\$ 28,130,376</b>
<b>Grand TOTAL</b>	<b>\$ 139,521,767</b>	<b>\$ 30,980,479</b>	<b>\$ 23,121,848</b>	<b>\$ 31,331,241</b>	<b>\$ 33,729,449</b>

- **Operating costs:**

Alternative #1 (construct 120 beds at Des Moines) has lower operating cost than the status quo or alternative #2 (construct 160 beds at Des Moines) with the exception of the 100 percent contract alternative and the original market plan. As indicated in the Capital Cost Narrative, the market plan alternative is not a viable option due to the data entry error and the 100 percent contract alternative is not a viable alternative due to the following considerations:

- Based on past experience, community nursing homes do not offer an equivalent community placement option for a significant portion of veterans served at VA Central Iowa HCS.
- Contract community nursing homes do not address the needs special emphasis groups such as the seriously mentally ill or those with special rehabilitation needs due to service connected injuries. VA nursing home care at Central Iowa HCS is uniquely tailored to the long-term needs of veterans not duplicated in the community.

- VISN 23 would not be able to adequately address Millennium Act requirements to maintain average daily census levels if all care were contracted.
- Contract community nursing home care doesn't address VA obligation to provide medical education.
- Due to time constraints, a survey of all Iowa community nursing homes was not conducted to determine availability of care. It is unknown how many meet VA's standard of care.
- The costs of administering 100 percent of the community nursing home contract over time would be \$1.8 M. The administrative cost is based on 8 percent of the contract costs.

**SUMMARY**

Operating Cost Summary	Status Quo (Plus capital)	Original Market Plan	100% Contract	Alt 1	Alt 2
<b>Knoxville</b>					
Operating Costs	\$1,080,674,324	\$947,870,850	\$694,750,206	\$388,740,392	\$388,740,392
<b>Des Moines</b>					
Operating Costs	\$1,023,455,934	\$1,054,564,315	\$1,054,258,114	\$1,709,267,142	\$1,817,507,846
<b>Operating Cost TOTAL</b>	<b>\$2,104,130,258</b>	<b>\$2,002,435,165</b>	<b>\$1,749,008,320</b>	<b>\$2,098,007,534</b>	<b>\$2,206,248,238</b>

Capital Cost	\$139,521,767	\$30,980,479	\$23,121,848	\$31,331,241	\$33,729,449
<b>Grand Total with Capital Cost</b>	<b>\$2,243,652,025</b>	<b>\$2,033,415,644</b>	<b>\$1,772,130,168</b>	<b>\$2,129,338,775</b>	<b>\$2,239,977,687</b>

Note Original Market plan has an error in workload transfer in NHCU from Knoxville to Des Moines

The original market plan includes operating cost for a 120 bed NHCU at Knoxville plus contracting for the balance of projected nursing home workload.

Contract 100% scenario has the contracting in Knoxville

**Old SUMMARY**

Operating Cost	Status Quo (Plus capital)	Original Market Plan	100% Contract	Alt 1	Alt 2
<b>Knoxville</b>					
Operating Costs	\$1,043,159,244	\$947,870,850	\$694,750,206	\$388,740,392	\$388,740,392
<b>Des Moines</b>					
Operating Costs	\$1,019,872,240	\$1,054,564,315	\$1,054,258,114	\$1,709,267,142	\$1,817,507,846
<b>Operating Cost TOTAL</b>	<b>\$2,063,031,484</b>	<b>\$2,002,435,165</b>	<b>\$1,749,008,320</b>	<b>\$2,098,007,534</b>	<b>\$2,206,248,238</b>
Capital Cost	\$139,521,767	\$30,980,479	\$23,121,848	\$31,331,241	\$33,729,449
<b>Grand Total with Capital Cost</b>	<b>\$2,202,553,251</b>	<b>\$2,033,415,644</b>	<b>\$1,772,130,168</b>	<b>\$2,129,338,775</b>	<b>\$2,239,977,687</b>

Note Original Market plan has an error in workload transfer in NHCU from Knoxville to Des Moines

The original market plan includes operating cost for a 120 bed NHCU at Knoxville plus contracting for the balance of projected nursing home workload.

Contract 100% scenario has the contracting in Knoxville

- **Human resources:**

Analysis of the proposed realignment's impact on human resources shows that the preponderance of eliminated positions will be in indirect or facility support positions. This large group of positions is associated with the maintenance of a 43 building, 162-acre site with most buildings constructed in the first half of the 20th Century. The positions are purely operational and will no longer be necessary due to the consolidation of inpatient beds to a single acute care campus in Des Moines and the resulting change at the Knoxville division from a 24hr-7day-a-week facility to an 8:00 a.m. to 4:30 p.m., Monday through Friday, community based outpatient clinic (CBOC) operation.

The majority of the impacted employees are in the direct care category or in operational categories whose function continues regardless of location. These positions will be retained. The Knoxville and Des Moines divisions are within calculated commuting distance by VA Human Resource standards. VA Central Iowa HCS will look to the existing skilled workforce to relocate their site of occupation to the Des Moines division. Current experience has shown employees already travel significantly between the two primary care sites. A large number of employees will continue to choose this option when the related construction project is completed and the care transfer occurs. Overall the human resources experience suggests that expanding into the Des Moines market will enhance recruitment.

The Knoxville and Des Moines divisions both have mature work forces with an average age of 48.5 years. At the current Knoxville division, 41.9% of the workforce is retirement eligible under either CERS or FERS programs. Current organizational planning is factoring this predictable future workforce change into its efforts. Recruitment to the anticipated numbers at both divisions is expected to be more competitive in the Des Moines market. Human resources staff are currently developing succession plans that support the transition in the workforce as well as the realignment of the campuses. The approval of the Iowa CARES Market plan will signal the beginning of specific succession planning efforts to shape the workforce to the future need through attrition. Reduction In Force (RIF) procedures will not be used and no planning for such a process has occurred.

- **Patient care issues and specialized programs:**

VA Central Iowa HCS provides primary care, acute psychiatric care, rehabilitation care, nursing home care, and domiciliary care at the Knoxville division. The rehabilitation care program, which is CARF accredited, has had an existing referral pattern with the Des Moines and Iowa City facilities for many years. The referral relationship has resulted in a successful collaboration to maintain the continuum of care. The professional communication supports functional gains after discharge and return to the parent facility for outpatient care follow-up. The model will continue after the new realignment, and many patient/family members will enjoy the advantage of improved access.

The nursing home care unit has also built a positive reputation for the delivery of specialized care for behavioral health patients referred through the acute mental health services. Many of the long-term care nursing home care unit placements have been patients that were rejected for care in the private sector as too problematic. The nursing home care unit has developed protocols and programs for this specialized population that will move with the unit in the realignment process. VA Central Iowa HCS will design programming to continue service to this special group of veterans during and after the realignment.

The realignment plan includes a CBOC in Knoxville to continue providing access to primary care services for veterans in the Knoxville service area. The plan calls for a robust mental health presence in the CBOC to address the special needs of the small community of veterans who relocated to the Knoxville community because of an affinity with the campus' traditional behavioral health mission.

Acute psychiatry, nursing home care and domiciliary care will shift in phases to the Des Moines division as a result of the realignment. This plan results in services being brought closer to the main veteran population center of the state. There will be no diminution of services provided to any special emphasis care group. On the contrary, the improvement in access is expected to enhance the program offerings.

- **Impact on Research and Academic Affairs:**

The proposed facility realignment is neutral with respect to existing and foreseeable research programs. Currently all research underway occurs at the Des Moines division.

Academic affairs would be impacted positively by the realignment. VA Central Iowa HCS maintains a number of training arrangements with a variety of clinical specialties. The arrangements would continue at the Des Moines division and in some cases they would be enhanced. An example is the geriatric rotation for the Family Practice residents from the Des Moines area who have had attendance problems at the Knoxville division due to travel conflicts with scheduling. The realignment plan promises to ease this concern and enhance the training opportunity.

- **Reuse of the Realigned Campus:**

The Knoxville campus can be marketed for reuse by organizations that require a physical structure of this nature. In the past, the State has shown interest in utilizing facility buildings for minimum-security rehabilitation programs. If marketing fails to attract interest, then demolition of structures should be pursued.

- **Summarize alternative analysis:**

The tables on pages 16 and 17 summarize the analysis of alternatives.

<p><b>NURSING HOME ONLY SCENARIOS: Preferred alternative description and rationale:</b></p>	<p>The preferred alternative is Alternative #1, construct a new 120 bed nursing home care unit at Des Moines, shift nursing home care workload from Knoxville to Des Moines, contract remaining workload in the community and divest or demolish the existing nursing home building at Knoxville. Alternative #1 is the same proposal as the original market plan; however, an error occurred in entering transferred workload to Des Moines in the IBM model for the original market plan. The error was corrected in Alternative #1 and the transferred workload was entered in the IBM model. Rationale for selecting Alternative #1: Alternative #1 has lower capital costs, operating costs, and life cycle costs than other two viable choices-- the Status Quo or Alternative #2 (construct 160 beds). Contracting 100% of the workload is not a viable alternative due to the uncertainty surrounding the availability of sufficient numbers of community nursing home beds meeting VA standards of care and willing to accept VA patients. In addition, the community may not offer services for special emphasis groups such as the seriously mental ill or patients with significant rehabilitation needs--services VA provides.</p>				
	<p><b>Status Quo</b></p>	<p><b>Original Market Plan (120 beds)</b></p>	<p><b>100% Contract</b></p>	<p><b>Alternate # 1 (120 beds)</b></p>	<p><b>Alternate # 2 (160 beds)</b></p>
<p><b>Short Description:</b></p>	<p>NHCU will continue to operate at Knoxville. Major renovations to the 60 year old building housing the NHCU are necessary to meet JCAHO standards. (The construction estimates are not in Status Quo.)</p>	<p>Construct 120-bed NHCU at Des Moines, shift workload from Knoxville to Des Moines and contract workload balance at CNH. IBM error did not shift wkld to Des Moines.</p>	<p>Contract 100% of nursing home care workload at community nursing homes.</p>	<p>Construct 120-bed NHCU at Des Moines, shift workload from Knoxville to Des Moines and contract workload balance at CNH.</p>	<p>Construct 160-bed NHCU at Des Moines, shift workload from Knoxville to Des Moines and contract workload balance at CNH.</p>
<p><b>Total Construction Costs</b></p>	<p>\$139,521,767</p>	<p>\$30,980,479</p>	<p>\$23,121,848</p>	<p>\$31,331,241</p>	<p>\$33,729,449</p>
<p><b>Life Cycle Costs</b></p>	<p>\$2,243,652,025</p>	<p>\$2,033,415,644</p>	<p>\$1,772,130,168</p>	<p>\$2,129,338,775</p>	<p>\$2,239,977,687</p>
<p><b>Impact on Access</b></p>	<p>Access to NH care will remain the same as currently offered.</p>	<p>Travel time access to VA NH care will improve as Des Moines is a large population center as compared to Knoxville.</p>	<p>Travel times for veterans and families would depend upon the availability of open NH beds in their communities.</p>	<p>Travel time access to VA NH care will improve because Des Moines is a large population center as compared to Knoxville (45 miles between sites)</p>	<p>Travel time access to VA NH care will improve because Des Moines is a large population center as compared to Knoxville. (45 miles between sites)</p>
<p><b>Impact on Quality</b></p>	<p>Quality of care would be maintained through significant renovation costs to correct deficiencies in an aging infrastructure.</p>	<p>A newly constructed NHCU would offer a contemporary building designed to provide nursing home care meeting community and VA standards.</p>	<p>Contracting for community nursing home care would depend upon the availability of accredited facilities and their willingness to accept VA referrals.</p>	<p>A newly constructed NHCU would offer a contemporary building designed to provide nursing home care meeting community and VA standards.</p>	<p>A newly constructed NHCU would offer a contemporary building designed to provide nursing home care meeting community and VA standards.</p>
<p><b>Impact on Staffing &amp; Community</b></p>	<p>Efficiencies of a consolidated staff at one location wouldn't be realized. Staff would continue to travel between campuses.</p>	<p>The majority of direct care staff would shift to the Des Moines campus as Knoxville is within VA standard commuting distance (45 miles). Non-direct care staff would be reduced through attrition.</p>	<p>Contracting for community nursing home care would negatively impact VA staffing as workload is shifted to community providers. Jobs would be lost.</p>	<p>The majority of direct care staff would shift to the Des Moines campus as Knoxville is within standard commuting distance (45 miles). Non-direct care staff would be reduced through attrition.</p>	<p>The majority of direct care staff would shift to the Des Moines campus as Knoxville is within standard commuting distance (45 miles). Non-direct care staff would be reduced through attrition.</p>
<p><b>Impact on Research and Education</b></p>	<p>Education rotations would continue with some attendance problems due to travel conflicts from Des Moines area schools. There are no research programs at the Knoxville division.</p>	<p>Academic affiliations would be positively impacted by the realignment to Des Moines due to improved access to patients. Research would continue at Des Moines.</p>	<p>The geriatric rotation for family practice residents may be reduced.</p>	<p>Academic affiliations would be positively impacted by the realignment to Des Moines due to improved access to patients. Research would continue at Des Moines.</p>	<p>Academic affiliations would be positively impacted by the realignment to Des Moines due to improved access to patients. Research would continue at Des Moines.</p>
<p><b>Optimizing Use of Resources</b></p>	<p>Maintaining and renovating an aging, inefficient 60 year old infrastructure would require major construction funding.</p>	<p>Major construction funding would be required to build a new facility; however, it would be designed for nursing home care, maintenance would be less an staff efficiencies realized.</p>	<p>Contracting for community nursing home care would reduce capital costs of new construction or renovating existing aging structures. The NPV is more positive than other options. Life cycle costs and operating costs are less than other options.</p>	<p>Major construction funding would be required to build a new facility designed for nursing home care. Maintenance costs would be less. Life cycle costs, operating costs and construction costs of 120 bed facility are less than 160 bed facility. The NPV is more positive for 120 bed than 160 bed facility.</p>	<p>Major construction funding would be required to build new facility; however, it would be designed for nursing home care and maintenance would be less.</p>
<p><b>Support other Missions of VA</b></p>	<p>Maintaining status quo supports the other VA missions.</p>	<p>New construction supports the other VA missions.</p>	<p>Contracting for community nursing home care does not impact the other VA missions.</p>	<p>New construction supports the other VA missions.</p>	<p>New construction supports the other VA missions.</p>

	Status Quo	Original Market Plan (120 beds)	100% Contract	Alternate # 1 (120 beds)	Alternate # 2 (160 beds)
<b>Optimizing Use of Resources</b>	Maintaining and renovating an aging, inefficient 60 year old infrastructure would require major construction funding.	Major construction funding would be required to build a new facility; however, it would be designed for nursing home care, maintenance would be less an staff efficiencies realized.	Contracting for community nursing home care would reduce capital costs of new construction or renovating existing aging structures. The NPV is more positive than other options. Life cycle costs and operating costs are less than other options.	funding would be required to build a new facility designed for nursing home care. Maintenance costs would be less. Life cycle costs, operating costs and construction costs of 120 bed facility are less than 160 bed facility. The NPV is more positive for 120 bed than 160 bed facility.	Major construction funding would be required to build new facility; however, it would be designed for nursing home care and maintenance would be less.
<b>Support other Missions of VA</b>	Maintaining status quo supports the other VA missions.	New construction supports the other VA missions.	Contracting for community nursing home care does not impact the other VA missions.	New construction supports the other VA missions.	New construction supports the other VA missions.
<b>Other significant considerations</b>	Note that capital costs are not included for remodeling and upgrading the NHCU at Knoxville.				