

Appendix O – Baseline Space, Workload and Costs

Supply Data

To evaluate the ability of existing capital assets to meet future demand, VHA first conducted a comprehensive inventory of current infrastructure, workload and costs. These baseline data represent current VHA supply used in CARES to determine future capital needs based on projected workload and space demand.

Baseline Physical Infrastructure

The assessment of existing physical infrastructure, both owned and leased, at all VHA facilities was conducted through three processes: Space and Functional Surveys, Facility Condition Assessments and the CARES Valuation process. These three assessment tools were systematically administered across all VHA facilities to build a database that measures the quantity and quality of VHA infrastructure based on a set of standardized criteria.

Space and Functional Surveys evaluate both the quantity and the quality of the physical infrastructure that is owned or leased by VHA. Together with the Facility Condition Assessments that measure condition of infrastructure systems, the Space and Functional Surveys give a snapshot of the departments and services that exist at each facility. They measure how much capital infrastructure is currently allocated to these functions and how that allocated space compares to a projected space need based on standardized space drivers for facilities with similar workloads and missions. The surveys quantify the general condition and functionality of the space, resulting in an overall Condition Score for each department reflecting a weighted average of scores for layout, code compliance, handicap accessibility, and patient privacy. The Space and Functional Surveys are also intended to identify potential excess capital that might be used to help the VISN meet demand for services or to use in the development of sharing agreements, enhanced use lease initiatives or other alternative revenue streams. Survey teams included VISN and medical center staff who selected the appropriate space drivers for each facility based on their size and mission. The survey team leader participated in each physical survey at each facility within a VISN to ensure consistent and uniform interpretation of space and condition within that VISN.

Building information that was gathered in the Space and Functional Surveys such as age, general condition, floor to floor heights, other architectural limitations, geographic location and the degree of dysfunction noted in the physical walk through of space, have assisted in determining the cost of various capital realignment options. The Office of Asset Enterprise Management provided real property appraisals that helped the VISNs understand the value of their real property for potential selling or leasing.

Baseline Workload

The CACI/Milliman Demand Model projects future workload demand for FY2002 through FY2022. In order to determine the gap between current VHA workload supply and projected future market and facility level demand, an accurate and compatible set

of baseline workload had to be developed for FY2001. VHA worked closely with CACI/Milliman to develop FY2001 baseline workload summaries in the same units and summarization as the CACI/Milliman workload projections. Part of this process of developing an accurate and compatible FY2001 baseline data set was a series of baseline reconciliation calls with each VISN. These calls were designed to show each VISN the effects of the different counting and categorization methods using their own workload data. The calls also served to reassure the VISNs that all workload was included in their baseline data.

The CACI/Milliman Demand Model projects and categorizes inpatient workload slightly differently than how the VHA typically reports. The Demand Model categorizes inpatient workload, in most cases, based on the Diagnostic Related Group (DRG) as opposed to the individual bed sections on which the patient may have been housed during their stay. The most common example of a difference in categorization between VHA and CACI/Milliman is with surgical hospitalizations. A patient who comes to VHA for a surgical procedure may spend three days in a surgical bed section and five days in a medical bed section for a total bed day of care count of eight days. If that admission were assigned a surgical DRG, CACI/Milliman would categorize the entire eight-day stay as "Surgery." VHA would categorize only three days as "Surgery" and the remaining five days as "Medicine." As a result of this difference in categorization, surgical bed days of care are consistently higher in the CACI/Milliman methodology.

In addition to categorization differences, CACI/Milliman counts bed days of care differently than VHA. The difference has to do with admissions that begin or end outside of FY2001. VHA counts only bed days of care that fall within the fiscal year, in this case from October 1, 2000 through September 30, 2001, truncating patient stays that begin or end outside of these dates. CACI/Milliman employs a method known as Run In and Run Out to calculate the number of bed days of care for encounters that cross fiscal years. Their methodology counts all of the bed days of care for admissions that started prior to FY2001 (Run In) while VHA begins counting from the first day of FY 2001 only. For admissions that began in FY2001 but ended in FY2002 (Run Out), CACI/Milliman excludes these admissions completely from their bed day of care counts while the VHA counts bed days from the admission date until the last day of FY2001. For admissions that started in FY2000 and ended in FY2002 (Run Through), both CACI/Milliman and VHA limit bed day of care counts to 365 days. For the purposes of calculating workload gaps between the base year and the model years of FY 2012 and FY 2022, the VHA used the CACI/Milliman counting and categorization methodologies for CARES.

There are also differences in how the CACI/Milliman Demand Model categorizes outpatient workload and how the VHA needs to categorize their workload for CARES. The CACI/Milliman Demand Model uses CPT codes to classify workload into a set of health service categories. The Demand Model uses CPT counts as the workload unit while VHA typically uses clinic stops as the workload unit and stop codes to identify the category of services provided. As a result, CACI/Milliman modified their model to convert CPT counts by health service category into VHA clinic stops by stop code

categories. This eliminated all variance between the VHA and CACI/Milliman Demand Model outpatient baseline data. CACI/Milliman was not, however, able to categorize and count the outpatient Fee Basis workload into VHA categories or units for this phase of CARES. Since Fee Basis workload is an important part of the VHA supply of outpatient care, VHA developed a methodology to estimate approximate stops by CARES planning category using a national set of allocation factors applied to the actual Fee Basis workload at each facility. Certain types of care were not able to be projected in the CACI/Milliman Demand Model and as a result were eliminated from the baseline. These types of care were: Home Based Primary Care, Recreation, Chaplain and Dental.

Baseline Costs

Unit costs for inpatient and outpatient workload were established for the different CARES Planning Categories as the basis for calculating and comparing different planning initiative alternatives. It was important that unit costs be developed for each parent facility in the same workload units and categories used in the CARES process, for both inhouse workload provided at VHA facilities and contract/fee basis workload provided in the community. It was determined that Modified DSS Unit Costs would be used for calculating inhouse costs and Medicare Allowable Costs would be used for contract/fee cost calculations. Both sets of unit costs were developed at the CARES planning category and CARES parent facility level for the baseline year of FY2001. These unit costs were validated by the VISNs and loaded into the IBM Market Planning software as the basis for cost analyses, subject to the inflation and present value formulas contained therein.

Modified DSS Unit Costs (Inhouse Costs)

To develop the most accurate and comparable unit costs across all facilities, DSS Unit Costs were adjusted to back out operations not based at or in control of by individual facilities. Indirect costs removed included items such as building and capital equipment depreciation as well as overhead for on-site headquarters, national program and VISN offices. In addition, adjustment factors were developed through a study performed by the DSS National Program Office and the Allocation Resource Center in their work on using DSS Costs in the VERA Model. As part of this work, thirty-three facilities total costs were determined to be outliers when compared to their departmental costs. These facilities had their total costs adjusted, up or down, to be more in line with their departmental costs. Lastly, for VHA facilities that are integrated into a health care system, DSS workload units are not as accurate as those in the national Patient Treatment File (PTF). Workload in DSS is rolled up into the parent facility, which does not allow for facility specific unit costs. Therefore, DSS records were cross-matched with PTF records in order to obtain the level of specificity needed for individual facility unit costs.

Medicare Allowable Costs (Contract/Fee Workload)

Medicare costs were obtained from CACI/Milliman. These costs were adjusted to meet VHA cost accounting practices to the extent possible. National Medicare Allowable Charges were used as a starting point with additional costs added. For inpatient

categories, physician costs were added to facility costs. For outpatient categories, facility costs were added to physician charges. Once these additional costs were added to the National Medicare Charges to reflect VHA accounting practices, they were adjusted by age, gender mix and metropolitan statistical area (MSA). These adjustments were then applied to counties and rolled up to the market level. Each facility was then assigned the Contract/Fee unit cost for each CARES Planning Category of the market in which they were located.

Construction Costs

Facilities Management has assembled current construction cost data for various types of functional building types for each VAMC location across the country, and they may be found at: <http://www.va.gov/facmgt/cost-estimating/vamcpricing.asp>

The types of functions covered by FM's database are: New Medical Centers, Ambulatory Care Facilities, Clinical Improvement Facilities, Bed Tower Replacement, Domiciliaries, Psychiatric Facilities, Spinal Cord Injury Units, Nursing Home Care Units (NHCU), Blind Rehabilitation Units, Research, Surgery and PACU, and Parking Garages. The data includes new construction, and three levels of renovation. The unit costs shown are representative of a general contractor's low bid as of the date noted for each data set. These costs are for the "Bricks and Mortar", however, and do not include and the associated site work elements to make the building functional, any movable equipment, relocation or impact costs, or any other items that used to be considered activation costs. FM has taken great care in selecting recent projects that would be representative of how VA delivers healthcare and should be valid as Planning Initiatives Solutions for construction based scenarios.

The three levels of renovation are benchmarked to industry common milestones: Total Renovation, Medium Renovation, and Light Renovation. Total Renovation is defined as: all finishes and backbone systems (mechanical, electrical, etc.) are removed, space is taken down to the structural elements and exterior skin of the building, in essence, only the shell of the building remains. Medium Renovation can be defined as: roughly two thirds (67%) of the finishes and systems are demolished and replaced, this is only appropriate for space whose function is not changing significantly, i.e. Medical Administration Service being renovated for Director's Suite – similar space requirements – not MAS being converted to Research Laboratories. Light Renovation removes and replaces approximately thirty percent (30%) of the finishes and systems. Again, the unit costs shown for each VAMC do not include any items that were once part of the activation process, such as movable equipment, ice machines, office equipment, etc., or moving costs, and the like, only construction costs as would be received from a general contractor. Through the CEA, the other mandatory VA markups, such as, construction contingencies, design fees, construction management, etc... are accounted for appropriately.

FM has also developed Demolition Costs and "Operating Costs". The Demolition Costs are broken down into two sections, the actual demolition cost to raze a facility and the cost to haul and dump. It was assumed the buildings were steel or concrete and mid-rise or higher. The reasoning for splitting the costs was that in certain instances the

rubble could be re-used on site as structural fill or for leveling of the site where the demolished facility once stood (backfill). The haul and dump costs were generated using 20 miles haul distance each way and a typical dump fee. FM contacted numerous private sector construction firms and local government entities to verify the costs shown in the database. With input from various VHA offices, FM calculated operating costs for various levels of occupancy, fully utilized, and mothballed–adjacent, and mothballed–standalone. These unit costs were developed to calculate accrued savings from planning initiatives that dramatically changed the function of specified space.