

The VA Medical Center Allocation System (MCAS)

Background

Beginning in Fiscal Year 2011, VHA Chief Financial Officer (CFO) established a standardized methodology for distributing VISN-level VERA Model funds to medical centers within each VISN. Prior to FY2011, VISN-management had the authority to distribute VISN-specific VERA funding in a manner consistent with the following principles:

1. Be readily understandable and result in predictable allocations.
2. Support high quality health care delivery in the most appropriate setting.
3. Support integrated patient-centered operations.
4. Provide incentives to ensure continued delivery of appropriate Complex Care.
5. Support the goal of improving equitable access to care and ensure appropriate allocation of resources to facilities to meet that goal.
6. Provide adequate support for the VA's research and education missions.
7. Be consistent with eligibility requirements and priorities.
8. Be consistent with the network's strategic plans and initiatives.
9. Promote managerial flexibility, (e.g., minimize "earmarking" funds) and innovation.
10. Encourage increases in alternative revenue collections.

The VISNs were required to document and substantiate their respective allocation methodology and outcomes each year. Consequently, this decentralized process resulted in 21 different resource allocation processes within VHA, thereby compounding the explanation and evaluation process for the 21 different methodologies nationwide. The Under Secretary for Health subsequently directed the VHA CFO to develop a standard methodology to allocate VISN-level VERA allocations to VA Medical Centers (VAMCs). The result of this effort is the Medical Center Allocation System (MCAS) model.

Methodology for MCAS

The process for developing the MCAS methodology began with a review of the 21 different VISN-to-facility funding strategies to assess best practices in VISN resource allocation practices. As part of this analysis, it was determined that although VERA was not designed to allocate patient care funds at the medical center level, some of the VERA funding components could be applied at the medical center level. Following the review of existing practices, the MCAS was developed to incorporate some of these concepts, including research and education support, equipment, non-recurring maintenance (NRM) and a geographic price adjustment to correct for geographic differences in salary and other costs.

The VERA process for allocating patient care funds at the VISN level is successful because a VISN has a clinically diverse patient population, otherwise referred to as a patient case-mix. At the medical center level, however, the patient case-mix and the number of patients are not sufficiently diverse to manage the risk associated with the capitated funding concepts

used in the VERA Model. For example, the case mix of patients at a facility may vary due to medical center specialization, academic affiliation of the medical center, and local clinical practice patterns. For this and other reasons, the capitated patient care Prices used in VERA would not appropriately fund VAMCs within a VISN. Consequently, the design of a successful medical center allocation methodology required a new variable that is not presently used in the VERA Model, to account for medical center-level differences in patient workload, volumes and clinical practice patterns. This new variable is known as Patient Weighted Work (PWW) and is explained in detail below.

Medical Center Allocation System (MCAS) Spreadsheets

The Medical Center Allocation System (MCAS) is based on the following guiding principles pertaining to the workload and budget used in the process.

1. MCAS consists of a uniform process for allocating VISN-level VERA General Purpose funds to VAMCs with the 21 VISNs, using standardized data elements that are representative of each medical center's workload. The data elements should meet generally accepted data integrity requirements that allow for field staff and auditors to validate the underlying data used in the budget allocation process.
2. The Initiatives section of the MCAS spreadsheet is designed to incorporate VISN-specific initiatives that are not accounted for in the standardized MCAS spreadsheet. The Under Secretary of Health (USH) authorizes VISN directors to identify and assign funds to VISN-specific issues within this section. Each initiative must comply with criteria outlined by the USH and documentation for each initiative is required. VISN Directors must explicitly state the reasons for any adjustments that they make and identify them as falling under the following categories that have been approved by the Under Secretary for Health.

“Off the Top” Adjustments Prior to Model Run:

- VISN headquarters (HQs) staff, supplies, leases, etc.
- Consolidated/integrated VISN functions (human resources, accounting, VISN-wide contracts, etc.)
- Centralized management (Non-Recurring Maintenance, Equipment, etc.)
- Contingency withhold to address emerging requirements (ORM payment's, etc.)
- VISN Initiatives
- Unfunded Activations

Reasons for Medical Center Specific VISN Initiatives:

- Recognition of workload changes in advance of VERA
- Recognition of significant revenue changes
- Staffing realignments
- Tenant Support

- Special considerations (Artificial Limb Fabrication, Geriatric Research Education Clinical Center (GRECC) Operations, rural operations)
- New Community Based Outpatient Clinics (CBOCs)

Reasons to adjust the Medical Center Outcomes:

- Significant mission change
- Adjustment for model impact
- Recognition of structural impediments
- Identify specific clinical/financial conditions that the Model does not address

An Excel spreadsheet was developed to provide a uniform approach for documenting the MCAS for each VISN. The spreadsheet includes color coded cells thereby allowing quick visuals of the variables that can be changed by VISN management, as well as the variables that must remain true to the VERA Model rules and passed directly to the medical centers. Each VISN spreadsheet contains the name, station identification number, corresponding data and funding of all medical centers within the VISN. Below is the MCAS color coded legend for the data fields followed by an example of a VISN's MCAS spreadsheet.

Input fields
Row Totals
Column Totals
Calculations
Fixed values

(A)	(B)	(C)	(D)	(E)	(F)
Line			4		
		FY13	FY14		
1	VISN VERA General Purpose Allocation	\$1,954,400,719	\$2,001,085,898		
2	VISN Carry-Forward	\$9,000,000			
3	VISN Total General Purpose	\$1,963,400,719	\$2,001,085,898		
4				Wilmington	Altoona
5				460	503
6	VISN Reserves & Initiatives - Held				
7	VISN Operating Reserve		\$81,938,350		
8	VISN Office and Staff		\$8,429,198		
9	VISN Initiatives (Reserved)		\$10,849,702		
10	A1. Consolidated HR		\$0		
11	A2. Contracting		\$0		
11	A3. Quality Improvement		\$0		
12	A4. Other Initiative (VISN Wide Obligations)		\$10,849,702		
13	VISN Initiatives (Facility Specific)		\$0	\$0	\$0
14	B1. Workload Growth		\$0		
15	B2. Rural FEE initiative		\$0		
16	B3. Other Initiative (specify)		\$0		
17	<i>Total VISN Reserves & Initiatives</i>	\$94,978,903	\$101,217,250		
18	VISN Capital Budget				
19	VISN Equipment	\$42,185,937	\$47,936,608		
19	Adjustment to Model with VERA Equipment		\$0		
20	VISN Equipment Balance after Model Adjustment	\$42,185,937	\$47,936,608		
21	VISN NRM	\$35,484,184	\$36,778,813		
22	<i>Total VISN Capital</i>	\$77,670,121	\$84,715,421		
23					
24	<i>Total VISN, Reserves, and Capital</i>	\$172,649,024	\$185,932,671		
25	Health Care System (facility) Distributions			Wilmington	Altoona
26				460	503
27					
28	FY13 Sub Network Distribution (SDM)	91.21%	\$1,790,751,695	\$126,833,191	\$78,149,701
29	FY12 Patient Weighted Work		289,835	21,108	13,693
30					
31	VERA to HCS Pass-Throughs				
32	High Cost Patient Allocation		\$130,038,320	\$9,497,794	\$1,754,797
33	Education Support		\$27,567,811	\$2,590,624	\$0
34	Research Support		\$22,527,528	\$0	\$0
35	<i>Total of Pass-Throughs</i>		\$180,133,659	\$12,088,418	1,754,797
36	VERA to HCS - Modeled				
37	General Purpose Model Allocation				
38	VERA to HCS Pass-Throughs		\$180,133,659	\$12,088,418	\$1,754,797
39	General Purpose HCS - Modeled Allocation		\$1,635,019,568	\$119,072,623	\$77,243,727
40	General Purpose to HCS Total	90.71%	\$1,815,153,227	\$131,161,041	\$78,998,524
41	Increase (Decrease) from prior year		\$24,401,532	\$4,327,850	\$848,823
42	% Increase (Decrease)		1.36%	3.4%	1.1%
43	Adjustment to Facility (\$ amount) Redistribute	1.0024	-\$3,990,947	-\$2,081,832	-\$255,871
44	New General Purpose to HCS		\$1,815,153,227	\$129,369,856	\$78,931,199
45	% Increase/Decrease from prior year			2.0%	1.0%
	Control Total		\$0		
	Input fields				
	Row Totals				
	Column Totals				
	Calculations				
	Fixed values				

Overview of Patient Weighted Work

Because the VERA methodology was not a viable allocation strategy, a new workload variable identified as Patient Weighted Work (PWW) was established to more accurately account for patient care practices at the medical center level. PWW is a numeric variable that accounts for patient volume, case-mix, specialized services, and unique medical center factors in a single measure. Patient Weighted Workload (PWW) is derived from an existing workload measure known as FacWork, which is a **national** variable that accounts for the resource intensity of patients within the VERA Patient Classification system. (See below for further description on FacWork). However, because Facwork represents national average data, it must be adjusted to account for data variations at the medical center level. For example, labor costs and clinical practice patterns vary at each medical center, so a series of adjustments are made to FacWork to create PWW.

One of the major adjustments includes providing additional workload credit for specific services or procedures known as resource intensive treatments. Resource Intensive Treatments (RITs) are specific treatments or services that are excessively expensive services that are not sufficiently accounted for in the patient classification process. Moreover, RITs are provided to a subset of any major patient group. For VERA 2014, there were 594 RITs, which are identified in the Allocation Resource Center's (ARC's) FacWork and PWW Cube. Examples of RITs include open heart surgery, neurosurgery and certain chemotherapies. A weighted workload equivalent is calculated for each of these services, which are identified as Diagnostic Related Groups (DRGs) for inpatient services or Common Procedure Terminology (CPTs) codes for outpatient services. The metric identifies the costs of these DRGs and CPTs that case-mix cannot account for. The residual cost is weighed against the national average patient cost to determine the resource intensity for this specific service. The sum of these weights for the RITs is added to the Facwork. A patient receives RIT credit for the single highest RIT for the inpatient stay or the encounter, even if more than one RIT is provided. However, if the RIT is performed during an inpatient stay, RIT credit is provided for every inpatient bed transfer segment during the inpatient stay.

Two additional factors are multiplied against the medical center's patient workload. First, the facility's labor index recognizes differences in cost of salaried labor between facilities. Second, the Complexity Group factor accounts for the variety of functions, missions and additional funding sources associated with each Complexity Group. For example, peer groups have different functions and missions in the organization and PWW is adjusted to account for many of those differences. This factor ensures each hospital group is treated fairly in the process.

Origin of FacWork

The workload variable known as facility workload, or FacWork, is a longstanding workload measure in the Unit Cost Reports (UCRs) used by VHA's financial managers. This series of reports are designed to compare efficiency, effectiveness and other measures between facilities and VISNs. FacWork is a numeric representation of patient data that is intended to capture the resource intensity of patient workload. The underpinnings of FacWork are derived from the VERA patient classification system, which is a structure that organizes the approximate 6 million patients in the VA healthcare system by established diagnostic categories and

utilization patterns. In brief, the VERA 2014 Patient Classification system is comprised of 60 patient classes that are subdivided into 129 diagnostic (Dx) classes. The Dx class-level represent smaller patient groupings that differentiate patient groups based on diagnosis codes and modalities of care, including patients that receive exclusively outpatient services. The Dx class data is further subdivided by age group and the following three Priority Level groups, 1-6, 7 & 8, and funded non-Veterans. The national costs associated with these sub-classes are used to construct FacWork. The variable known as FacWork describes the resource intensity of the patient population based on National relative costs of the VERA sub-classes.

The formula for computing FacWork (illustrated in Graphic 1) uses national costs per patient. The numerator in the calculation is the national cost for the DX class and the denominator is the national average cost of a patient, also referred to as the national cost per FacWork. This cost data is represented by subclasses within the VERA Patient Classification system. These sub-classes are more commonly known as diagnostic (DX) classes. (Note that many of the ProClarity Cubes available on the website allow users to view facility level data at the Dx class level.) In general, the Dx class level data sub-divides the VERA Patient Class to differentiate between notable differences within a class. One of the most noteworthy differences within a VERA patient class is the difference in cost when a patient receives exclusively outpatient care. As such, many of the VERA Patient Classes will have an outpatient Dx class for patients receiving exclusively outpatient workload.

There are two additional factors that are taken into consideration in the computation of FacWork. Specifically, a patient's age and Enrollment Priority group are factors in utilization. Therefore, the computation of FacWork is done by:

1. Eight distinct age groups because clinical costs can vary depending upon the age of the patient, and
2. Enrollment Priority Groupings that aggregate patients into the following three groups:
 - I. Priority Groups 1-6 or
 - II. Priority Groups 7 & 8 and
 - III. Non-Veterans.

Graphic 1: Formula for FacWork

STEP 1: Compute the National Weighted Work Units for all Sub-Classes

$$\frac{\text{National Avg. Cost Per Dx Class (By Age and Priority sub-Groups)}}{\text{National Avg. Cost Per PRP (For all Patient Classes)}} = \boxed{\text{Weighted Work Unit (WWU)}}$$

Step 2: Multiply the unit's PRPs by corresponding WWU to determine FacWork

$$\boxed{\text{VISN/Facility PRPs (by sub-Class)}} \times \boxed{\text{WWU (by sub-class)}} = \boxed{\text{FACWORK}}$$

Computing Patient Weighted Work

Patient weighted work is a workload measure that begins with FacWork and includes additional facility-specific adjustments designed to more accurately account for patient workload intensity at the facility level. As indicated above, FacWork is computed at the Dx class level so it inherently accounts for patient-specific clinical differences at an individual facility, albeit at a national level. However, because FacWork reflects national values, additional adjustments are required to account for facility-level differences across the country. These additional adjustments are deemed to be outside the control of VISN management. Such factors include:

1. Geographic differences in pay as a result of salary structures that are mandated by the federal pay system;
2. Resource intensive treatments that are extremely costly to perform and are statistically 70% higher than national cost per FacWork of a patient; and
3. Complexity Group differences that measure the complexity level of the services performed at the facility.

Each adjustment is addressed below.

Geographic Differences in Pay also known as the Labor Index: In the federal government, salaries are prescribed by schedules that reflect among other things, locality pay. These factors are out of the control of VISN management, and therefore, need to be reflected in the allocation methodology. For this reason, a labor index is computed to reflect actual differences in pay for salaried staff. The index used to adjust the facility-level workload is a composite value that reflects the actual indices computed at the person class level. For each major person class, a facility specific index is computed and reported on the ARC website to document the relative

costs of salaried staff for all VHA personnel. Note that the labor index does not include salary differences for contract or non-VA staff.

Resource Intensive Treatments (RIT): Resource Intensive Treatments are defined as specific treatments identified by either Diagnostic Related Group (DRG) for inpatient care or a Health Care Common Procedure Code (HCPCS) used during an outpatient encounter. These treatments are considered resource intensive because the cost of the specific procedure is 70% more costly than the national cost per FacWork, which was \$7,618 in fiscal year 2012.

The process for identifying RIT is different for inpatient and outpatient care.

For inpatient care, the DRG is extracted from the PTF, Census PTF, non-VA PTF or the fee payment files. The additional weighted work associated with the RIT is given for every bed transfer segment that occurred during the admission.

For outpatient services: RITs are assessed by DSS Clinic Stop and additional FacWork is added for the single highest RIT for the encounter when more than one RIT is evident for the encounter. It should be noted that additional restrictions have been imposed on outpatient workload to control for atypical outpatient data. These restrictions include: HCPCS codes must have a “Fac RVU” greater than 2 and a national average cost of \$300 per treatment. These qualifying factors help remove extraneous data from files.

Other exclusions include codes for durable medical equipment, temporary codes and orthotic procedures. A list of the precise resource intensive treatments and their corresponding additional FacWork are available on the ARC Website in the FacWork Cube.

Complexity Group Adjustment

Every facility is assigned a Complexity Group by the Office of Productivity, Efficiency and Staffing (OPES) based on a comprehensive evaluation of the services provided by the facility. The FY2011 Complexity Group assignments were used in the MCAS process for this year. Using ARC patient costs, an additional FacWork adjustment was computed to reflect the variation in costs at the Complexity Group level. Specific adjustment variables that are assessed in the formulation of the Complexity Group Adjustment include patient case-mix, geographic costs and additional funding streams. The chart below contains the specific adjustments based on FY 2012 costs.

<i>Complexity Group</i>	<i>Adjustment</i>
1A High	0.986
1B High	0.986
1C High	0.986
2 Medium	1.041
3 Low	1.030
358 Manilla	0.406
463 VA Alaska HCS, 556 James A Lovell FHCC, 629 New Orleans	1.142