

ASSESSMENT OF DATA QUALITY

Due to diligent efforts over the past several years, the quality of VA performance data is good – not perfect, but very usable. Our efforts have taken many forms: each program office initiated specific improvement actions; the Office of the Inspector General (OIG) conducted a series of audits to determine the accuracy of our data; and our budget office worked with program officials to prepare an assessment of each key measure.

After identifying corporate data issues, a coordinated effort was made to improve the quality of the data we collect. For example, VHA established a data quality council to lead its improvement efforts. The council's focus has been centered on:

- Creating standard processes that support on-going maintenance of data quality;
- Defining and implementing local accountability for data quality;
- Establishing a data quality education, training, and communication structure;
- Focusing efforts on data that support patient access processes.

OIG audits are an integral part of our data quality assessment efforts. We consider OIG reviews to be independent and objective. For each VA program, we collect a great deal of information from veterans and other users through customer satisfaction surveys. We are continually improving our survey processes and standards — a long-term project. The following discussion describes in specific detail the actions each VA administration has taken to improve its data quality.

Veterans Health Administration

Data reliability, accuracy, and consistency have been a targeted focus of the Veterans Health Administration (VHA) for the past several years. The principles of data quality are integral to VHA's efforts to provide excellence in health care. In FY 2001, the Under Secretary for Health commissioned a new high-level cross-cutting task force on data quality and standardization whose membership includes the Chief Officers from the Office of Quality and Performance, Office of Policy and Planning, Chief Network Office, and the Office of Information. In its early stage of development, this task force will focus on strategic planning to provide consistent definitions of clinical and business data for more effective clinical and organizational decision support. The members will seek collaboration with other parties including the Department of Defense, Indian Health Service, private sector health care providers, and standards organizations.

VHA has long been recognized as a leader in documenting credentials and privileges of VA health care professionals. In FY 2001, VHA implemented a new electronic data bank, VetPro, on health care professionals' credentialing in partnership with the Department of Health and Human Services. VetPro promotes and demonstrates to other federal and private agencies the potential of a secure, easily accessible, valid data bank of health professionals' credentials.

VetPro improves the process of ensuring that health care professionals have the appropriate credentials for their clinical roles. It will also help VHA verify that practitioners have a good and desirable track record, consistent with high-quality and safe patient care. When a doctor or dentist is credentialed using VetPro, a permanent electronic file is created that

will be accessible across the VA system and other federal health care programs. As VetPro is used, the process of updating credentials will be streamlined because files will not be redone from scratch. As providers add information it will be verified by the credentialers who create the permanent record. The Joint Commission on Accreditation of Health Care Organizations reviewed VetPro and stated, "The program appears, if used as designed, to be consistent within considerable detail with the current Joint Commission Standards..."

The VHA Data Consortium addresses organizational issues and basic data quality assumptions. The Consortium works collaboratively to improve information reliability and customer access for the purposes of quality measurement, planning, policy analyses, and financial management. The ongoing initiatives and strategies address data quality infrastructure, training and education, personnel, policy guidance, and data systems.

The VHA data quality coordinator, along with data quality workgroups, provides guidance on data quality policies and practices. Several initiatives underway that support the integrity and data quality of coding include:

- Development of strategies and standard approaches to help field staff understand the data content and meaning of specific data elements in VHA databases;
- Development of coding resources for field facilities, to include negotiating the purchase of knowledge-based files/edits from Ingenix™ for use within the Veterans Health Information Systems and Technology Architecture (VistA). This supports the use of national code sets, Current Procedural Terminology, 4th Edition (CPT-4), and Health Care Financing Procedural Coding System (HCPCS) Level II. The availability of these code sets will enable

VHA to accurately describe outpatient and other professional services provided to patients;

- Complete revision of VistA software to accommodate the use of national code set modifiers, giving providers the ability to document care more completely and accurately.

To support the need for guidance in medical coding, VHA established the Health Information Management (HIM) Coding Council. The council, comprised of a panel of credentialed expert coders with support from VHA HIM Central Office staff, researches and responds within 24 hours to coding questions, citing official references. The council also updates the national coding handbook, which provides expert guidance to field facilities. This handbook standardizes guidelines for complete and accurate coding.

VHA's Office of Information sponsors the "Close Encounters" newsletter, which provides expert guidance to field facilities on encounter forms, insurance billing, coding, and Medicare compliance. It also sponsors a data quality newsletter, "Data Quality Highlights," which provides data quality facts and tips.

Training and education opportunities that support data quality initiatives and compliance (such as the airing of national satellite broadcasts on data quality issues) are provided to staff. Future topics include external impacts on data reliability, guidance from the Centers for Medicare and Medicaid Services, national standards bodies issuance, and internal data requirements of the Veterans Equitable Resource Allocation (VERA) funding model.

In an effort to improve the reliability of Decision Support System (DSS) data, a directive on standardization was released to all VA medical

facilities. The directive provides guidance for the standardization of managerial accounting and serves as a clinical information tool to assess the delivery of medical care across facilities.

In addition to guidance, training, and education, the Office of Information is involved in several key projects that are targeted to improve data quality and system reliance. These include the Meta Data Repository (MDR) and the Master Patient Index (MPI). The MDR houses data from 49 VHA databases. This registry contains definitions, business rules, names of database stewards, and descriptive information about the data elements contained in *VistA* databases. The MDR was released to a limited audience of data users in January 2001. General release will be completed in the fall of 2002. The MDR provides a single source of data element description to users and technical staff. Use of the MDR will also help eliminate data redundancies and improve standardization.

VHA also completed the implementation of a national MPI in FY 2001. MPI provides the ability to view clinical data from various VA medical facilities via the remote data view functionality within the Computerized Patient Record System (CPRS). MPI provides the access point mechanism for linking patient information from multiple clinical, administrative, and financial records across VHA health care facilities, enabling an enterprise-wide view of individual and aggregate patient information. Responsibility for MPI data integrity exists on both corporate and facility levels. This effort will be accomplished through the use of software reporting tools and interaction with both sites of care and external authoritative sources.

Future Efforts

VHA is in the process of examining its current health information processing environment in order to plan how to best implement improvements over the next 5 years. As part of this process, VHA is assessing:

- What a high-performance automated health system needs to provide;
- What the ideal health and information system would look like;
- What the advantages and disadvantages are of our current system;
- How best to use a phased approach for moving from the current to the ideal environment.

VHA intends to pursue efforts to move toward an ideal health and information system. This system would promote the sharing of information any time, any place, by any authorized provider, and in real-time, while ensuring that stringent privacy and security regimes are maintained. It would maximize use of the best available technology to allow users to effectively manage across programs, time, and distance, and within budget constraints, while balancing the resource needs of health and information. The ideal health and information system would provide a high-performance platform that maximizes patient health.

In the near term, VHA will enhance the current *VistA* platform by completing the Decision Support System and implementing *VistA* Imaging. Based on the availability of funds, mid/long-term efforts will include the development of a health database accessible across all levels of care, times, locations, and providers; the enhancement of Eligibility/Enrollment processing to meet *One VA* goals; the reengineering of the *VistA* Scheduling package;

and enhancement or replacement of the Billing and Fee Basis Systems. The following narrative provides a description of these projects:

Replacement of VistA Integrated Billing and Accounts Receivable System

The billing and accounts receivable modernization project will continue the trend towards industry standardization. It will include required functionality of the existing application, as well as additional necessary functionality identified through previously conducted requirements analysis. The information system will interact with all current and future systems that support the registration, billing, and accounts receivable processes.

The transformed billing and accounts receivable system will also move VHA health care in the direction of industry standards, in that it will utilize account-based management. VA currently uses bill-based management, in which non-billable treatment and services are not entered into the billing application. In an account-based management system, a patient's account is started when he/she arrives for care, and flows to the billing system regardless of billability. If not billable, a bill will not be generated. This allows for accurate potential revenue calculation and projection.

Fee Basis

The Fee Basis portion of the above initiative supports VHA's efforts to improve operations, comply with impending health care regulations within the Health Insurance Portability and Accountability Act that require the acceptance of electronic claim submissions, control its costs, and prevent fraud and abuse. Fee Basis operations have been the subject of several internal and external studies in which reengineering, process, and organizational redesign have been recommended

and piloted, but not implemented across the country. The transformation of the Fee Basis process, together with the replacement of Central Fee by the core Financial and Logistics System (coreFLS), will facilitate a redesigned and improved Fee Basis process. A new system will allow the Fee Basis process greater flexibility in terms of location, volume, and type (manual vs. automated) of processes being performed. Replacing Central Fee and IFCAP, the main interfaces of Fee Basis, with one commercial product will ease the implementation and the resulting processes.

In addition to process improvement, a new system will accommodate increased clinical data capture and have the flexibility to capture workload data currently being missed and/or not reported correctly. This will have several effects on the Fee Basis program. First, the program will function to accurately account for the services for which VHA is paying. Next, it will allow Veterans Integrated Service Networks (VISNs) and medical centers to appropriately capture their actual workload. Also, VISNs and medical centers will be able to provide Fee patients a full continuum of care, regardless of the location of care, by capturing the services performed by non-VA providers. Finally, the new Fee Basis system will allow VHA to pursue reimbursement from the patient's insurer with medical documentation if appropriate.

Veterans Benefits Administration

The Veterans Benefits Administration (VBA) steadily continues to improve its data systems and the integrity of information within those systems. When it comes to delivering \$27.9 billion in benefits annually to more than 3.2 million veterans and their families, VBA believes data integrity must remain a core competency.

For many years, data integrity has been a significant concern for VBA. Eliminating the practices of

manipulating numbers and allowing incorrect input into essential reporting systems has been a primary focus. As outlined in its *Roadmap for Excellence*, VBA created the Data Management Office (DMO) in 1998 to incorporate a strong focus on administration-wide data integrity. The DMO plays a key role in this effort, working in concert with all VBA components.

Overall, VBA has emphasized the establishment of a viable and acceptable information security program. An organized, centralized effort has been underway since the completion of the Year 2000 initiative. VBA has established a Security Infrastructure Protection Office (SIPO) within the Office of Information Management. We will further strengthen this program by continued coordination with the VA Office of Cyber Security and by providing (1) increased oversight at SIPO, (2) enhanced technical security at VBA's Hines Information Technology Center, and (3) enhanced VBA Internet Security.

Data integrity requires improving the information we collect and publish regarding veterans and dependents and the operations of VBA's five business lines. The data that are collected must lead to accurate, current, consistent, and germane information that serves the needs of internal and external users now and in the future. A key initiative in fostering data integrity is the deployment of a balanced scorecard approach to measuring organizational performance. Using this methodology, performance is measured consistently from the national level down through the regional offices. Maintained by the DMO and delivered via Intranet technology, the balanced scorecard provides VBA employees, managers, and executives with a better understanding of organizational strengths and areas for improvement in a timely and consistent manner. The balanced scorecard promotes information sharing and

cooperation within VBA, which directly improves the delivery of benefits to veterans. Results from the balanced scorecard are shared with external stakeholders such as Congress and veterans service organizations during quarterly briefings.

To ensure the integrity of transactions in the compensation and pension (C&P) business line, data regarding specific transactions that appear suspect are posted to the C&P Service Intranet Web site. Stations monitor this site and review those transactions that appear questionable (for example, multiple work credits taken on the same case within a short period of time, or a very short period of time between the establishment of the claim and the disposition). The C&P Service tracks station reports to ensure proper review and corrective actions are taken. This process has resulted in a reduction of suspect transactions and has helped identify areas for training or policy clarification.

Another major initiative to facilitate data-driven decision-making is VBA's Operations Center, an Intranet portal supported by user-friendly analytical tools, where the balanced scorecard and other core business information are made available for review and analysis. The Operations Center provides all levels of employees and managers with the same data used in decision-making and performance reporting. This wide dissemination of data ensures that constant review and analysis take place, facilitating improved data validation, and ultimately, improved service to veterans.

VBA's data warehouse and operational data store support the Operations Center. Both these technology environments, and their accessibility to end-users via the Intranet, dramatically improve the reliability, timeliness, and accuracy of core business information. Data collection and dissemination that once took weeks are now completed inexpensively and efficiently and are

available on-line for review and analysis. Because the data are so accessible, anomalies or inconsistencies are readily noted and corrective action can be taken.

Facing the challenge to modernize systems and improve data integrity, VBA has made great strides in the past 3 years to ensure the quality of information and data-driven decision-making. The continued refinement of processes and systems, including the construction of a single corporate database where consistent information is available regarding veterans and business transactions conducted for those veterans, remains a key focus of VBA. These efforts, building upon a modernized infrastructure, ultimately lead to improved delivery of benefits and services to veterans and their families.

National Cemetery Administration

National Cemetery Administration (NCA) workload data are collected monthly through field station input to the Management and Decision Support System, the Burial Operations Support System (BOSS), and the Automated Monument Application System-Redesign (AMAS-R). After reviewing the data for general conformance with previous reporting periods, Central Office staff validates any irregularities through contact with the reporting station.

NCA determines the percent of veterans served by existing national and state veterans cemeteries within a reasonable distance of their residence by analyzing census data on the veteran population. Since FY 2000, actual performance and the target levels of performance have been based on the new VetPop2000 model developed by the Office of the Actuary. VetPop2000 is the authoritative VA estimate and projection of the number and characteristics of veterans. It is the first revision of official estimates and projections since 1993.

The new VetPop2000 methodology resulted in significant changes in the nationwide estimate and projection of the demographic characteristics of the veteran population. These changes affected the separate county veteran populations from which NCA determines the percentage of veterans served.

For FY 2001 and subsequent years, NCA has developed a new customer satisfaction survey process to measure the quality of service provided by national cemeteries as well as their appearance. The new survey provides statistically valid performance information at the national and regional (Memorial Service Network) levels and at the cemetery level (for cemeteries having at least 400 interments per year). The annual survey is done via mail; the data are collected from family members and funeral directors who recently received services from a national cemetery. To ensure sensitivity to the grieving process, NCA allows a minimum of 3 months after an interment before including a respondent in the sample population. VA Central Office staff oversees the data collection process and provides an annual report at the national level.

When headstones or markers are lost, damaged, or incorrectly inscribed, it is important to determine both the cause and the party responsible for the expense of a replacement. In FY 2001, NCA implemented new codes for ordering replacement headstones or markers. Use of these new codes produces reliable and accurate data on replacement actions and provides management with an effective tool for improving the overall business process.

Efforts continue in expanding the use of information technology to collect performance data for the timeliness of marking graves at national cemeteries. NCA has developed a new data collection instrument and is currently validating the accuracy and integrity of the data collected.

Following the collection and analysis of baseline data, NCA will identify future performance goals.

Office of Inspector General (OIG)
Audits

The OIG continued its assessment of the accuracy and reliability of VA's key performance measures in accordance with the Government Performance and Results Act. During FY 2001, we continued an assessment of the Chronic Disease Care Index (CDCI) and Prevention Index (PI), and initiated an audit of the Vocational Rehabilitation and Employment Rehabilitation Rate. The OIG assessed the procedures used by VHA to compute the CDCI and PI indices during FY 2000 and demonstrated that these were adequate. During FY 2001, we began a review of the appropriate source documents to determine the validity of data used in computing the CDCI and PI. This audit will be completed during FY 2002.

To date, the OIG has completed audits of six key measures, and we plan to conduct several others in the near future. We will confer with program and other key officials during the second quarter of FY 2002 to determine which key measures should be the next ones to audit.