

Assessment of Data Quality

Veterans Health Administration

VHA has focused on data reliability, accuracy, and consistency for the past several years. The principles of data quality are integral to VHA's efforts to provide excellence in health care. In 2001, the Under Secretary for Health commissioned a high-level, cross-cutting task force on data quality and standardization whose membership includes the chief officer from VHA's Office of Quality and Performance, the Assistant Deputy Under Secretary for Health, and officials from the Chief Network Office and Office of Information. This task force has focused on strategic planning to provide consistent definitions of clinical and business data for more effective clinical and organizational decision support. The members seek collaboration with other parties including DoD, Indian Health Service, private sector health care providers, and standards organizations.

VHA's commitment to quality data was confirmed by the results of a recent OIG audit of the validity of data collection of the quality measures that VHA tracks – CDCI II and PI II. The report acknowledged a high degree of accuracy. There were no recommendations.

VHA has long been recognized as a leader in documenting credentials and privileges of VA health care professionals. In 2001, VHA implemented a new electronic data bank, VetPro, on health care professionals' credentialing, in partnership with the Department of Health and

The quality of VA data has continued to improve; it supports business planning and day-to-day decision-making activities. Each program office has initiated specific improvement actions. In addition, the Office of the Inspector General (OIG) has conducted audits to determine the accuracy of our data. We consider OIG reviews to be independent and objective. The following discussion describes in detail the actions each VA administration has taken to improve its data quality.

Human Services. VetPro promotes and demonstrates to other federal and private agencies the value of a secure, easily accessible, valid data bank of health professionals' credentials. VetPro improves the process of credentialing and privileging by establishing a secure, accessible, valid electronic database; ensuring appropriate credentials for clinical roles of practitioners; and allowing verification of practitioner track records.

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 and data quality workgroups provide guidance on data quality policies and practices. Several initiatives support the integrity and data quality of coding including the following:

- 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);
- Complete revision of VistA software to accommodate the requirements of the Health Insurance Portability and Accountability Act for use of those code sets involving health care claims.

To support the need for guidance in medical coding, VHA established the Health Information Management (HIM) Coding Council, comprised of credentialed expert coders with support from VHA HIM Central Office staff to provide research and response to coding questions within 24 hours. The council also completed an update to the national coding handbook, which provides expert guidance to field facilities. Additional initiatives include the following:

- "Close Encounters" and "Data Quality Highlights" newsletters for field staff guidance;
- Ongoing, periodic training programs on such topics as national standard code set updates;
- Standardization of electronic encounter forms including documentation templates.

The Patient Financial Service System (PFSS) project is the pilot implementation of a commercial billing and accounts receivable system in VHA. This project is designed to incorporate business process improvements and commercial information systems that are proven in the private sector. The project will introduce commercial business practices and technology into VA through a VISN pilot project comprised of VA best practices and commercial best practices. The objectives of the pilot are to implement a commercial product and study the effects on collections, improvements to the business process, and effects on the information systems in a single test environment. Ultimately, the long-term strategy is to develop a scalable solution, which includes both a commercial solution and VA applications that can be implemented in all VHA Networks.

The VHA Office of Information is involved in several other key projects that are targeted to improve data quality and system reliance. These include VHA's Register Once project, which deploys an incremental solution to the *One VA* registration/eligibility initiative so that a veteran only has to provide necessary information to VHA once, and enables VAMCs to securely share administrative data.

VHA completed implementation of a national Master Patient Index (MPI). The 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. The MPI provides the 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.

VHA is examining its current health information processing environment 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 of our current system are;
- How best to use a phased approach for moving from the current to the ideal environment.

Veterans Benefits Administration

VBA, in recent years, has sought to improve the information it relies on in all facets of its operations from claims processing to FTE hiring patterns. Whether these data are in legacy systems or a data warehouse environment, the output must be accurate and consistent in order to be effective. Managing the accuracy of these data necessitates an ongoing commitment. In 2003, VBA again invested resources in support of this commitment. By using data quality methods and strategies across all its business lines, VBA continues to show improvements in its data.

The Compensation & Pension (C&P) program has moved to a specialization approach in its work processes. VBA has found that these specialized

work processes allow for greater workload control, development of expertise by the staff, more accurate and consistent directions, and more efficient and timely processing. These strategies and a significant reliance on information technology and employee development have improved our claims processing and the quality of data.

The Office of Performance Analysis and Integrity (PA&I) completed its first year of operations. The office now performs many of the data quality functions formerly carried out by other VBA components. Some of the work conducted by PA&I that contributed to the value and quality of data collection is discussed below.

In the performance analysis area, VBA analyzed its cycle time with the goal of reducing the time required for processing a claim. One conclusion offered by the study was to upgrade one of the management information tools used for making decisions.

PA&I also gathers and reviews performance data on a monthly basis. This information is then presented in report format as part of the Deputy Secretary's Monthly Performance Review where data generated within VBA as well as provided to VBA are discussed for accuracy and consistency. Decisions for subsequent corrections of problem areas are addressed at the highest managerial levels. Another ongoing analysis PA&I conducts involves a review of the number of days to receive service medical records from the National Personnel Records Center.

Data presented in reliable, timely, and accurate reports are generated and provided to VBA managers and stakeholders. Some of the report

modules PA&I brought online or enhanced this past year include:

- The Appraisal System. This system is currently used to track property appraisals for the Loan Guaranty program.
- The Inventory Management System (IMS). In addition to the data collected from the Benefits Delivery Network and Claims Automated Processing System, IMS now reflects information collected from the Modern Award Processing-Development system. The enhanced reports allow managers in the field and Central Office to more efficiently manage the workload.
- The Gulf War Veterans Information System (GWVIS). This system was enhanced to include VHA data on inpatient and outpatient visits from deployed Gulf War veterans. This represents an expansion of GWVIS, presenting a broad spectrum of statistics about Gulf War veterans.
- Ad hoc requests. These require data from single or multiple VBA source systems. Using established business rules (definitions of what the data represent), consistent, useful, timely, and accurate information reports are provided to requestors. VBA business lines, external stakeholders, and interested parties (such as the Congressional Budget Office, General Accounting Office, and veterans service organizations) regularly request information on various cohorts of veterans concerning their compensation and pension benefits usage.

Data quality is ensured through the development of integrity and internal controls. One approach is to explore data mining tools as an option to identify and deter potential fraud, waste, and abuse. Practical examples

include identifying veterans with improper dependents, non-suspended accounts with multiple returned payments, and discrepant data between various systems. Data mining can be used to highlight questionable data and system failures or anomalies.

VBA began its Large Payment Verification Review in October 2001 and continued in 2003. Lists of C&P payments over \$25,000 are provided to field stations for review and certification at the director level. As of August 2003, over 38,000 cases were reviewed leading to over \$6.6 million in recoveries from erroneous payments. PA&I works closely with C&P Service to facilitate and track this function to enhance program integrity and fraud detection efforts.

PA&I, in cooperation with C&P Service, led efforts to identify and test various options to identify correct address information for veterans. With the wide use of electronic funds transfer, many beneficiary addresses had become out of date. A 3 month pilot demonstrated that deploying a nationwide contract for online address capability for all VBA field offices will effectively enhance accurate data in VBA beneficiary records.

PA&I is involved in the VBA Annual Statement of Written Assurance (SWA), which attests to the adequacy of its management controls. The 2003 process was enhanced by including a list of critical elements provided by VBA service and staff offices for field review and certification. SWA training is provided to field station management analysts to promote compliance with management and internal controls permitting only proper payment of benefits.

Since the mid 1990's, VBA has conducted customer satisfaction surveys

for all its major business lines as a way to obtain direct feedback from the individuals receiving services from VBA. In 2003, information on the quality of service delivery was obtained from C&P claimants, persons receiving education benefits, homeowners with a VA loan, and veterans in (or having completed) the vocational rehabilitation program, as well as the insurance policyholders. These surveys produce statistics on the performance at the national, administrative, and regional office (RO) levels. The results of the surveys are posted on VBA's Intranet Web site. PA&I conducts special analyses showing key drivers of customer satisfaction and comparisons of performance among ROs to help focus on service improvements.

National Cemetery Administration

Experience and recent historical data show that about 80 percent of those interred in national cemeteries resided within 75 miles of the cemetery at the time of death. From this experience, NCA considers eligible veterans to have reasonable access if a burial option (whether for casketed or cremated remains) is available within 75 miles of the veteran's place of residence. 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. Arlington National Cemetery, operated by the Department of the Army, and Andrew Johnson National Cemetery and Andersonville National Cemetery, operated by the Department of the Interior, are included in this analysis. In 2000,

VA's Office of the Actuary released VetPop2000, the authoritative VA estimate and projection of the number and characteristics of veterans. From 2000 through 2002, actual performance was based on the VetPop2000 model using updated 1990 census data. Beginning in 2003, actual performance is based on a revised VetPop2000 model using 2000 census data. Projected openings of new national or state veterans cemeteries and changes in the service delivery status of existing cemeteries are also considered in determining the veteran population served. (Multiple counts of the same veteran population are avoided in cases of service-area overlap.)

NCA collects data monthly through field station input to the Burial Operations Support System on the timeliness of marking graves. After reviewing the data for general conformance with previous report periods, headquarters staff validates any irregularities through contact with the reporting station.

Since 2001, NCA has used an annual nationwide mail survey to measure the quality of service provided by national cemeteries as well as their appearance. The survey provides statistically valid performance information at the national and Memorial Service Network levels and at the cemetery level for cemeteries having at least 400 interments per year. The survey collects data annually 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 headquarters staff oversees the data collection process and provides an annual report at the national level.

In 2003, NCA established standards and measures for key operational processes including interments, grounds maintenance, and headstones and markers. In conjunction with these standards, NCA has initiated an Organizational Assessment and Improvement Program to identify and prioritize continuous improvement opportunities, and to enhance program accountability by providing managers and staff at all levels with one NCA "scorecard." In 2004, assessment teams will begin to conduct site visits to all national cemeteries. All national cemeteries will be visited on a rotating basis to validate performance reporting.

Office of Inspector General (OIG) Performance Audits

The OIG made an assessment of the Department's data quality in the Major Management Challenges section of this report. This information is shown on pages 143 to 171.