



Assessment of Data Quality

VA's ability to accomplish its mission is dependent on the quality of its data. Each day, VA employees use data to make decisions that affect America's veterans. Data accuracy and reliability are paramount in delivering medical care, processing benefits, and providing burial services.

Each program office has initiated specific actions to improve data quality to better support business planning and day-to-day decision-making. 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.

Veterans Health Administration

VHA consistently focuses on data reliability, accuracy, and consistency. 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 the Office of Information. This task force focused on strategic planning to provide consistent definitions of clinical and business data for more effective clinical and organizational decision support. The members continue to seek collaboration with other parties including DoD, Indian Health Service (IHS), private sector health care providers, and standards organizations. Through collaborations both within the federal government and in conjunction with health standards organizations, VHA and DoD were able to exchange computable pharmacy and allergy data in 2007.

This exchange enables clinical decision support on data from different VA and DoD locations and greatly expands the ability to avoid drug-drug and drug-allergy complications.

VHA's commitment to quality data was confirmed by the results of an OIG audit of the validity of data collection of the quality measures that VHA tracks – Clinical Practice Guidelines Index and Prevention Index II. The report, released in April 2003, acknowledged a high degree of accuracy. The OIG made no recommendations. VHA continuously monitors data accuracy to ensure these high standards are maintained.

Office of Inspector General (OIG) reports dated July 2005 and September 2007 found reported outpatient waiting times to be unreliable because of data integrity concerns associated with VHA's scheduling system. The Under Secretary for Health non-concurred with this one OIG finding in the September 2007 report due to disagreements with the OIG's methodology. VHA has obtained the services of an expert consultant to perform a thorough analysis and assessment of its scheduling and wait times reporting system.

VHA has long been recognized as a leader in documenting credentials and privileges of VA health-care professionals. In 2001, VHA implemented an electronic data bank, VetPro. This database dramatically improved VHA's ability to ensure timely and appropriate credentialing of health-care professionals. In December 2006, VetPro was expanded to include all licensed, registered, and certified health care professionals. 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.
- Allowing verification of practitioners' 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 issues, policy guidance, and data systems.

The VHA data quality coordinator and data quality workgroups provide guidance on data quality policies and practices as follows:

- Develop policy and guidance for field and other staff that provide standard information related to the data content, context, and meaning of specific data elements in VHA databases.
- Participate in VHA's data standardization activities that involve the standardization of VHA's clinical and administrative data in support of critical activities including VA's Health Data Repository program and the Clinical and Health Data Repository data sharing and interoperability project (a collaborative effort between VA and DoD).
- Develop of coding resources for field facilities, including the centralized purchase of enhanced QuadraMed products to support coding and billing. The use of these products is mandatory at all VA sites. The software products and services enable the hospitals to more efficiently manage their revenue cycle.
- Participate in various workgroups providing stewardship of and expertise on VHA data that provide increased data quality for future efforts such as HealthVet VistA.

- Modify the registration software to support the accurate collection of more complete patient identification data in support of the Joint Commission patient safety goal.

This past year, the VHA data quality coordinator helped effectuate changes to software designed to do the following:

- Prevent terminated providers from reading or entering clinical information (VistA).
- Eliminate dual data entry and add clarification to procedures used to delineate workload locations and providers (VistA).

Other software changes included the following:

- Enhancements to prevent the editing of signed documents within VHA's electronic health record.
- Developed codes for Traumatic Brain Injury to provide better tracking of brain injured veterans and to more specifically identify and describe the types of brain injuries.
- Integrated the national external peer review process into local review processes of coding of specifically identified coding supporting indicators such as Acute Myocardial Infarction, Unstable Angina, Heart Failure, and Pneumonia.

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 completes regular updates to the national coding handbook, which provides expert guidance to field facilities. Additional initiatives designed to improve overall data quality of VHA's administrative and clinical data include:

- "Close Encounters" and "Data Quality Highlights" newsletters for field staff guidance and information.
- Ongoing, periodic training programs on such topics as national standard code set updates



- and refresher training in specific areas such as orthopedic coding.
- Standardization of electronic encounter forms including documentation templates.
 - Creation of a policy document to address patient identity issues when erroneous edits to a patient's identity data have patient safety implications.
 - Providing training-materials development and publication for field and other staff related to data quality topics such as the Registration process, Register Once process, software enhancements, and processes and procedures related to the identification and correction of data quality issues.

Currently VHA is enhancing the VistA platform by completing the Decision Support System and implementing VistA Imaging. Given funding availability, mid/long-term efforts will include development of a comprehensive health database that will be timely and universally accessible across the full continuum of care settings. This platform will provide the basis for enhancements to eligibility/enrollment processing packages leading to attainment of One VA goals, the reengineering of the VistA Scheduling Package, and enhancements/improvements to the billing and fee basis systems.

VHA established a data standardization program to implement a common language for all VHA providers and facilities. The program enables sharing of commensurate data among VHA, DoD, and other health care providers. The availability of commensurate data will increase patient safety by ensuring that all clinical decisions are based on the patient's complete medical record; reduce costs and minimize the likelihood that duplicate tests and procedures will be performed; and improve data quality, aggregation, and reporting by ensuring the consistent interpretation of data across all VHA facilities.

VHA's My HealthVet-VistA project is focused on replacing the existing VistA legacy health-care information system by rehosting,

enhancing, and/or reengineering current health information applications on a modern robust technology platform. This effort will enrich the functionality currently available, benefiting veterans, clinical care providers, and the general public by expanding the availability and use of health-care information. When fully implemented, HealthVet-VistA will provide veterans access to their personal health record through the My HealthVet component. This will enable veterans and veterans' health care providers to access and share the health record, trusted health information, and key supportive services including viewing appointments and communicating with their providers through secure messaging. HealthVet-VistA will provide the transition to a veteran-centered health care system that will establish longitudinal electronic health records and track veteran visit history including their problems, orders, results, and treatments, and documentation across all visits enabling VA clinical care providers to have immediate access to critical information regardless of which facility the veteran visited.

VHA's Administrative Data Quality Council was formed in 2004 and is a collaboration between the Chief Business Office and the Office of Information's Health Data and Informatics. This group was formed to provide guidance, direction, and collaboration across VHA to address administrative data, which is fundamental to the patient's health record, and VHA's business processes that support patient care. The Council has issued policy directives and developed and provided training to the field.

VHA is examining its current data quality strategy and proposing the establishment of a formal Data Stewardship program that specifically outlines business roles and responsibilities for data as well as governance and other key aspects of a Data Stewardship program.



Veterans Benefits Administration

VBA continues to focus on data reliability and validity in all facets of its operations from claims processing to FTE hiring patterns. Whether data are collected and housed in legacy systems or an enterprise data warehouse environment, the output must be accurate and consistent to be effective. Managing the accuracy of these data requires an ongoing commitment to data quality methods and strategies across all business lines. In 2007 VBA again invested resources in support of this commitment.

The Office of Performance Analysis and Integrity (OPA&I), which reports directly to the Under Secretary for Benefits, assesses data for completeness, validity, consistency, timeliness, accuracy, and appropriateness of use as indicators. These data are extracted from VBA's systems of record (for example, Benefits Delivery Network) and are imported into an enterprise data warehouse. All reports emanating from the enterprise data warehouse are developed using business rules provided by the respective VBA business lines.

Prior to release, each report is subject to a validation process to ensure accuracy and adherence to the business rules. Specific data validation reviews are conducted throughout the year, and data anomalies are routinely investigated and brought to resolution. VBA's ongoing efforts to maintain data accuracy include reviews of definitions and the associated data related to those definitions. Below are several of the projects and approaches used by the business lines and OPA&I as part of VBA's data quality practices.

- VBA continues to use an online application, which allows all field offices to download timely and consistent information useful to the operations of that office. The enterprise data warehouse integrates the ability to convert large quantities of select information into a spreadsheet format for further

analysis. This eliminates the need to develop and maintain individual databases or data marts, which negatively impact centralized data quality measures.

- The Gulf War Veteran Information System affords trend data on population growth for policy and legislation purposes, including those dealing with post-traumatic stress disorder and amyotrophic lateral sclerosis. Both VBA and VHA use these data routinely for operations and analysis. Data are analyzed for variations within the sub-cohorts as well as consistency across the entire population from a longitudinal perspective.
- The VETSNET Operations Reports (VOR) were deployed beginning in May 2007. This new suite of reports allows employees, coaches, and Veterans Service Center managers to be proactive in workload management through timely and accurate access to integrated information. In order to continually improve VOR, VBA regularly reviews the system for accuracy.
- The Fiduciary-Beneficiary System (FBS) provides Fiduciary program personnel and their managers with a database and diary system for the records of incompetent beneficiaries. It also generates field examination requests and accounting-due letters, as well as maintains workload and timeliness data. Through a series of standard listings and reports, as well as specialized query requests to the database, it allows for systematic workload and inventory management. FBS can generate monthly random samples of claims for local review, and the completed work products for the prior month are used to select cases for national review. This random sample approach allows managers and field staff to review claims systematically, saving both time and resources. A review of the methodology used in calculating the completed and pending cases in this system



determined that all data and reports were complete and valid.

- Corporate WINRS is a comprehensive case management system used to maintain complete case histories, generate forms and letters, control payments, and assist in scheduling and tracking appointments for the Vocational Rehabilitation and Employment (VR&E) program. VR&E Intranet reports are continuously refined for regional offices and Central Office to monitor and track this workload data. These reports and other data are released to the regional offices and provide a mechanism to validate the information for accuracy and discrepancies.
- The Insurance Payment System ensures all employee-generated transactions that result in disbursement (e.g., death award, loan, cash surrender) and all changes to bank data used for direct deposit are second-party verified by an independent staff. This system maintains daily counts of receipts and disbursements by the Insurance fund. Each week, random system payments are sampled for accuracy, and quarterly reports are reviewed to resolve questionable conditions, such as payments to two veterans at the same address.

In addition, OPA&I conducts workload and performance reviews on a regular basis. This information is reported at the Deputy Secretary's monthly performance reviews.

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. For 2003 through 2005, actual performance was based on a revised VetPop2000 model using 2000 census data. Actual performance for 2006 and 2007 and target levels of performance for 2007 were based on the VetPop2004 version 1.0 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.) In 1999 the OIG performed an audit assessing the accuracy of the data used for this measure. Audit results showed that NCA personnel generally made sound decisions and accurate calculations in determining the percent of veterans served by a burial option. Data were revalidated in the 2002 report entitled Volume 1: Future Burial Needs, prepared by an independent contractor as required by the Veterans Millennium Health Care and Benefits Act, P.L. 106-117.

NCA collects data monthly on the timeliness of marking graves through field station input to the Burial Operations Support System. 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 the appearance of national cemeteries. The 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 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.

NCA has established an Organizational Assessment and Improvement Program to identify and prioritize improvement opportunities and to enhance program accountability by providing managers and staff at all levels with one NCA “scorecard.” As part of the program, assessment teams conduct site visits to all national cemeteries on a rotating basis to validate performance reporting.