



## 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.

### Veterans Health Administration

#### I. Data Accuracy

VHA's Data Quality Program and data quality workgroups also 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.
- Provide training and education to users through presentations at Veterans Health Administration electronic Health University (VeHU), Information Technology Conference (ITC) and program specific conferences.
- Disseminate best practices and data quality guidance through the VHA Data Quality Web site, a quarterly data quality newsletter, and through publication of user guides on subjects such as Data Quality, Identity Management and Catastrophic Overwrites which affect patient health care records.
- 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).
- Address patient safety risks through implementation of strong data quality practices that ensure the correct identification of patients and reduce the likelihood of catastrophic overwrites to the patient's longitudinal health record.
- Participate in various workgroups providing stewardship of and expertise on VHA data that provide increased data quality for future efforts such as HealthVet VistA and in VA workgroups such as the effort to identify and document the uses of social security numbers in electronic systems and other records, and to develop alternatives for individual identification. Monitored and resolved data integrity issues and conflicts for more than 400 records with SSN discrepancies.
- Conducted an analysis of the accuracy of Date of Death data to identify how to improve the quality of this information.
- Collaborated in federal and external efforts, e.g., American Health Information Community (AHIC) VA/DoD Clinical Data Repository/Health Data Repository (CHDR), Connecting for Health (Markle Foundation) and National Health Information Network (NHIN) to improve data quality and support interoperability with health partners.
- Developed requirements for the Identity Management Data Quality (IMDQ) Toolkit which is a software application. The toolkit will re-host the legacy Master Patient Index (MPI) Identity Management user interfaces and improve current functionality for the HealthVet VistA and MPI environments. The IMDQ Team will use the IMDQ Toolkit as the primary tool for identifying, managing and resolving issues with active patient's longitudinal health record and ensuring the integrity of the records for all persons across VHA.
- The Identity Management Data Quality team also identified additional data quality requirements or business rules to improve VHA's VistA system around patient identity data by adding software requirements to



prevent errors to patient record identity data that would reduce the quality of the identity data, such as preventing a change to a patient's social security number when that number had been validated by the Social Security Administration for that individual, thereby preserving the quality of the data for the patient and their electronic healthcare record.

VHA has broadened the Data Quality Program. In FY 2008, the Data Quality Program drafted a strategic framework that articulated the following goals:

- Improve the comprehensiveness, timeliness, consistency, and accuracy of VHA data for clinicians, researchers, administrators, veterans, sharing partners and lines of business.
- Reduce patient safety risk through implementation of strong data quality practices.
- Manage the integrity of patient identity information to provide the longitudinal health record.
- Enhance the patient experience by providing and maintaining consistent, complete and accurate data.
- Identify and promulgate industry and VHA data quality business standards and practices.
- Provide effective communication, education and training to improve data quality.
- Improve data quality to support interoperability with health and other partners.

## **II. Data Reliability/Comparability**

VHA's abstracted data provides a reliable estimate of the quality of care being provided and is used to make clinical decisions as well as being used for accountability purposes. Many of the health care quality metrics can be trended over time and have external benchmarks for comparability.

Data reliability and consistency are critical elements for ensuring the timely and appropriate credentialing of health-care professionals. To this end, VetPro was implemented in 2001.

In December 2006, VetPro was expanded to include all licensed, registered, and certified health care professionals. To assure data reliability, original documents used in the credentialing process are scanned into VetPro and are readily available to clinical managers for decision-making and granting of clinical privileges. Any inconsistencies in the data provided and the verification of such data is automatically identified by VetPro and the credentialer must then take appropriate steps to reconcile the information. All primary-source documentation of credentials are stored electronically, including scanned images of the original paper documents.

VHA has long been recognized as a leader in documenting credentials and privileges of health-care professionals through its Credentialing Team. To assure accuracy in managing data, new Credentialing Team members complete a detailed orientation prior to assuming full duties as a program analyst.

Team members have access to three Web-based training modules, one in medical staff leadership and two in provider profiling. There are six more modules related to other aspects of credentialing and privileging due to launch on or before March 2009.

All new credentialers undergo VetPro Security and Confidentiality training prior to being given access to VetPro, the VHA's electronic credentials databank. Program analysts randomly audit credentialing files to assure accuracy of information.

VetPro promotes and demonstrates to other federal and private agencies the value of a secure, easily accessible, consistent, valid data bank of health professionals' credentials.



In sum, VetPro standardized the process of credentialing and privileging throughout VHA by:

- Establishing a secure, accessible, valid electronic database.
- Ensuring appropriate credentials for clinical roles of practitioners.
- Allowing verification of practitioners' track records.
- Promoting telemedicine and emergency readiness due to ease of sharing of electronic files as needed.

### **III. Data Consistency**

VHA's data consistency efforts are implemented through three programs:

- *Data Stewardship* – Establishes and formalizes accountability and governance for the characteristics and management of organizational data and ensures that the appropriate people representing business processes, data and technology are involved in decisions relating to the data they produce, manage and use.
- *Clinical Data Quality Coordination*: Develops clinical data quality guidance and operating policies for VHA. Establishes and maintains mechanisms to identify resolve and monitor clinical data quality.
- *Business Product Management*: Ensures that business stakeholder data quality requirements are identified and communicated through appropriate processes and monitors progress to ensure business needs are met.

## **Veterans Benefits Administration**

### **I. Data Accuracy**

VBA's data management systems have been substantially improved in recent years with such programs as the VETSNET suite of applications and other corporate data solutions. These applications and the analytical tools associated with the data warehouse provide leadership with more robust data, and better support for information management and analysis.

Information is collected in defined formats and entered into specific fields of database records. Data are checked for completeness by system audits and manual verifications.

Certain data, such as SSN, are verified with the Social Security Administration periodically. Prior to award of benefits by VBA, the veteran's record is manually reviewed and data validated to ensure correct entitlement has been approved.

Employees are skilled and trained in the proper procedures; data entry procedures are documented and followed; data are sampled against source data through quality reviews; and procedures for making changes to previously entered data are documented and followed.

### **II. Data Reliability/Comparability**

The Office of Performance Analysis and Integrity (OPA&I), which reports directly to the Under Secretary for Benefits, assesses data for completeness, consistency, accuracy, and appropriateness of use as performance and workload management indicators. These data are extracted from VBA's systems of record, such as VETSNET, 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. Supporting documentation for the enterprise data warehouse is maintained and readily available. Reporting requirements are regularly reviewed and modified when anomalies are noted, or when changes are made to the underlying business applications.

VBA leadership uses performance data to make program decisions concerning benefits processing and other organizational needs. The decision to consolidate functions such as original pension claims processing to improve service is one example of the use of performance data in the decision making cycle. To the extent possible, performance data is comparable



between years, and is routinely reported in during the Monthly Performance Review, in annual budget submissions, and in other forums.

### **III. Data Consistency**

Each VBA business line's requirements for data definitions, collection and documentation are well-documented in users guides and manuals.

During the migration to the corporate environment for the Compensation and Pension, Vocational Rehabilitation and Employment, and Loan Guaranty Programs, reporting consistency is maintained through synchronization of the legacy and corporate data within the corporate database. Corporate reporting requirements are well-defined, but additional requirements and modifications are continually under development. As business users identify new requirements, they are documented and tested to ensure reliability.

Reports are generated on regular schedules (daily, monthly, annually) to ensure consistency between reporting periods. Data are validated monthly by all five VBA business lines, and migrated into Monthly Operations Reports by OPA&I for use by VBA leadership as well as at the local level to make program and operational decisions.

## **National Cemetery Administration**

### **I. Data Accuracy**

NCA determines the annual distribution of living veterans and estimated veteran deaths from data provided by the VA Office of the Actuary based on current census figures. NCA's methodology for estimating the percent of veterans served by a burial option within a reasonable distance (75 miles) of their residence was reviewed in a 1999 OIG 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 utilizes an annual mail-out survey to assess customer satisfaction with the appearance, quality of service provided, and other important aspects of VA national cemeteries. This survey is administered by an independent contractor. Data are accurate at a 95% confidence interval at the national and MSN levels and for cemeteries having at least 400 interments per year.

Performance data are also captured in NCA's Burial Operations Support System (BOSS) and Automated Monument Application System (AMAS) databases. These data are entered daily by NCA personnel who are trained in cemetery data collection and BOSS data entry procedures.

Automated monthly and fiscal-year-to-date reports are provided by VA's Quantico Regional Processing Center and are analyzed, verified, and distributed by trained NCA central office personnel to NCA Central Office, MSN, and national cemetery managers. After reviewing the data for general conformance with previous report periods, headquarters staff flag and resolve any irregularities through contact with the reporting stations and comparisons with source data from the BOSS and AMAS systems.

NCA has established an Organizational Assessment and Improvement Program to identify and prioritize improvement opportunities and to enhance program accountability. As part of the program, assessment teams conduct site visits to all national cemeteries on a rotating basis to review cemetery data collection systems and verify collection methods. This review ensures that cemetery performance data are collected and reported in a manner that is accurate and valid.

### **II. Data Reliability/Comparability**

NCA uses data on the percent of veterans served by a burial option within a reasonable distance



(75 miles) of their residence to determine the need for future national cemeteries and to prioritize funding decisions for potential state veterans cemeteries. These data are comparable between years and show the impact that funding for new cemeteries has made toward serving the burial needs of veterans.

Data from respondents to NCA's annual mail-out survey are collected and reported by an independent contractor. These data are accurate at a 95 percent confidence interval at the national and MSN levels and for cemeteries having at least 400 interments per year. Data provided by this survey are reliable and are used by NCA management to develop funding requests and determine priorities for the operation and maintenance of national cemeteries as national shrines.

### **III. Data Consistency**

Since 1999, NCA has consistently utilized a 75-mile standard for determining the percent of veterans served by a burial option within a reasonable distance of their residence. NCA utilizes the most current VetPop model based on census data and developed by the VA Office of the Actuary to determine the distribution of living veterans for this measure. The consistency of the methodology for calculating performance on this measure is verified in both the 2002 Future Burial Needs report and in the 2008 report entitled Evaluation of the VA Burial Benefits Program, prepared by an independent contractor as required by 38 U.S.C. 527.

The methodology for assessing customer satisfaction on NCA's annual mail-out survey has remained consistent since its inception in 2001. 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.

The data collection method, requirements and process is specified in the survey contract. These meet industry standards for survey methodology. VA headquarters staff oversees the data collection process to verify that the contractor complies with data collection procedures.

NCA's BOSS database was originally implemented in the early 1990's and continues to serve as VA's primary source for national cemetery workload data. BOSS data fields and input instructions are well documented in BOSS User Guides. Monthly, semi-annual, and annual reports generated from BOSS are automated and generated on regular time schedules to ensure data consistency between reporting periods.