DATA LINKAGES TO IMPROVE HEALTH OUTCOMES

VETERANS HEALTH ADMINISTRATION

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SELECTED ADMINISTRATIVE DATA LINKAGES WITHIN VHA

INDEPENDENT ACTIVITY	**LINKED TO**
Survey of enrollees	VHA administrative data (clinical and cost).
Customer Satisfaction survey	
Medicare and Medicaid data	

FOCUS

- Design, development and testing of a VHA-MEDICARE-MEDICAID integrated data base and user-friendly system.
- Opportunities
- Barriers to Implementation
- Process
- Challenges

OPPORTUNITIES

- VHA consists of 21 VISNs (regions), about 156 hospitals, 876 outpatient clinics, nursing homes and domiciles. The VHA budget would rank it among the Fortune 50.
- VHA has recently been mentioned as providing some of the best health care in the country. To continue to be among the best in the country requires a constant search for opportunities to improve cost, quality and access.
- Identifying opportunities for improvement facilitates becoming a learning organization.
- Integrated data provides opportunities to conduct analysis, such as
  - Risk adjusted outcomes models for specific procedures that compares VHA and private sector
  - Severity adjusted models comparing VHA and private sector cost
  - Impact of cost, quality, access, benefits and service characteristics on veterans decisions to visit a VHA or private sector facility.
  - Identify fraudulent billing practices.
  - When more timely data are available, use by physicians in treating patients.
  - Strategic opportunity identification.

BARRIERS TO IMPLEMENTATION

- Few people have the knowledge and ability to access the data
- Integration is difficult and time consuming. Medicare-Medicaid-VHA data are at least 3 different data sets developed independently, with different purposes, data and data definitions.
- Data sets are large and generally require a higher level of programming skill to access.
- Investment in hardware to store and run the data may be an important consideration.
- Potential users of the data have different needs, making it difficult to develop a single systems to access the data.
- The size of potential demand is unknown and hence there is risk in investing in developing a system that that may not produce a payback.
- Privacy and security laws and regulations add complexity to managing and using the data and hence reduce access.
- Decision makers lack of experience with the potential utility of integrated data reduces demand.
- Economics

PROCESS

- Survey to estimate timing and size of demand and customer uses.
- Contractor used to design and develop a system to integrate Medicare-Medicaid-VHA data and develop a user friendly system.
- User-friendly system considered key to expanding use and getting more value from the data.
- Pilot test to consist of
  - Data integration and systems design.
  - Three “White Papers” demonstrating the value of integrated data.
  - Tutorials and research applications by potential users.
  - Customer satisfaction survey.
  - Data validation effort.
- System design planned in multiple phases; each phase consisting of design-use-asses, design-use-assess, etc until the system is ready for roll-out or until such a system was determined to be infeasible.
- The system would have to satisfy the needs of three groups of users:
  - Researchers
  - Data Analysts (those implementing mgt. driven projects requiring data)
  - Casual users (i.e., periodic reports, trends, or simple analysis)

PROCESS (cont.)

- Phase 1 used a 5% sample of Medicare data for 1 year and 100% sample of VHA and Medicaid data for the same year; results were
  - Customer satisfaction survey pointed to areas in which the system met and where it fell short of user expectations.
  - VHA-Medicare-Medicaid data were integrated using contractor assumptions
  - Intermediate data produced from the integrated data sets were compared to data from VHA Medicare files obtained from CMS and no significant differences were found.
  - Issues about spending more time learning the system and/or making the system more user-friendly were raised
  - Technical questions about how to make the system faster were raised, (e.g., bigger machines with more memory, processing one year of data at a time, etc.)
  - It was thought that managing risk associated with HIPAA, PA, and security regulations might improve with the use of contractor software for managing risk and a more centralized business model for data distribution.
  - More involvement of VHA staff was needed in future data integration and systems development

WHERE ARE WE?

- Phase I (design-use-assess) completed.
- Evaluation is on-going which will determine whether we go to the next Phase (design-use-assess).
- Uniform agreement among users as to the value of integrated data.
- Questions remain about whether
  - there is sufficient demand to justify investment.
  - technical and other challenges can be overcome to make this massive amount of data user friendly

CHALLENGES

- Technical
  - User-friendly system made more intuitive
  - Reporting system for “casual users”
  - Addressing processing time issues
- Cultural
  - For integrated data and user-friendly systems to be successful requires the organization to think and behave in new and different ways
- Economic
  - Outsourcing is a successful strategy when fixed cost can be converted to variable costs in non-core business activities. Would VHA realize cost savings by outsourcing to a contractor all or some of the activities associated with managing an integrated data and user friendly system? What are alternative business models between VHA and a contractor? Which is optimal?
- Organizational
  - Currently being developed as a “green house” project out of the Policy and Planning Office.
  - Where in the organization should responsibility for further development of the integrated data base and user friendly system reside?