Don’t Believe Everything You Hear from the Campaign Trail: How VA is a National Leader in Using Data to Benchmark and Drive Health Care Improvement

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Disclaimer: The views expressed do not reflect the positions or policy of the Department of Veterans Affairs
VA is the Largest Integrated Health System in the U.S.

## Characteristics of the Department of Veterans Affairs Health System FY13

<table>
<thead>
<tr>
<th>System Characteristic</th>
<th>Number</th>
</tr>
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<tbody>
<tr>
<td><strong>Patients and Provision of Health Services</strong></td>
<td></td>
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<tr>
<td>Enrolled Veterans</td>
<td>8.93M</td>
</tr>
<tr>
<td>Unique Patients Treated</td>
<td>6.49M</td>
</tr>
<tr>
<td>Outpatient Visits</td>
<td>86.4M</td>
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<tr>
<td>Inpatient Admissions</td>
<td>694,700</td>
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<tr>
<td><strong>Facilities and Types of Care Provided</strong></td>
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<tr>
<td>Medical Centers</td>
<td>151</td>
</tr>
<tr>
<td>Outpatient Clinics (Community-Based, Hospital-Based, Mobile, Mobile, Independent)</td>
<td>820, 151, 8, 8</td>
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<tr>
<td>Readjustment Counseling (Veteran) Centers</td>
<td>300</td>
</tr>
<tr>
<td>Domiciliary Residential Rehabilitation Centers</td>
<td>102</td>
</tr>
<tr>
<td>Community Living Centers (Skilled Nursing Facilities)</td>
<td>135</td>
</tr>
</tbody>
</table>

Source: Veterans Health Administration Office of the Assistant Deputy Under Secretary for Health for Policy and Planning (10P1), 2013 Dec 19.
VHA Has 30 Years of Experience Collecting Nationwide Data from its EHR

• EHR used nationally since 1985
• Corporate Data Warehouse developed in 2006 as a repository for patient-level aggregated data
  – 20 million unique patient records; 1000 separate data tables; 20,000 columns; 80 billion rows
  – Refreshed nightly moving toward every 4 hours

But...

- Massive data storage ≠ “Big Data” (i.e. advanced tools and analytics)
- Information processing ≠ knowledge or QI
Case Study #1: High-Risk; High-Utilizing Patients

- VA primary care teams are provided with Care Assessment Needs (CAN) scores for their patient panels updated weekly
  - Risk of hospitalization, death
  - Displays enrollment in telehealth, home-based primary care, hospice
  - Recent health care use (e.g. ED visits, inpatient stays)
- Data provided to nurse case managers for care planning and follow-up
- Geospatial mapping to plan programs

Case Study #2: Clinical Assessment Reporting and Tracking (CART) System

- Operates in all 79 VHA cath labs
- Used for clinical documentation but simultaneously tracks quality and safety of procedures
- Permits nearly real-time monitoring of
  - Serious AEs and device failures
  - Radiation exposure
  - Conscious sedation
  - Device inventory
- Developed with input from cardiologists to:
  - Pre-populate fields
  - Point and click graphics
  - Automated generation of notes in the EHR
Case Study #3: National Quality Reporting for all VA Hospitals: Strategic Analytics for Improvement and Learning (SAIL)

Case Study #4: Risk Standardized Mortality & LOS Reporting within VA

MICU Standardized Mortality Ratio: Site vs VA National Aggregate

MICU Observed Minus Expected LOS: Site vs VA National Aggregate
Case Study #5: External Benchmarking

30-Day Heart Failure Mortality Rates – Houston
3-Year Rolling Data, 2010-2013

Source: SAIL & CMS hospitalcompare.gov
Summary

• VA is a leader in using data routinely collected as part of the clinical encounter in the EHR to benchmark and drive quality improvement

• VA uses data for accountability to:
  – Congress
  – Tax payers
  – Veterans
  – VA Leadership
  – Accreditors

• VA Researchers are experts in using this data to contribute to a continuous learning health care system