Introduction to VA Health Care System
for
Gulf War Advisory Committee
June 17, 2008
Lawrence Deyton, MSPH, MD
Chief Public Health & Environmental Hazards Officer
"To care for him who shall have borne the battle and for his widow and his orphan."

-Abraham Lincoln, Second Inaugural address in 1865
Outline

• VA Health Missions
• Veterans Served – Demographics
• VA Eligibility Reform – Changes since 1996
• VA Electronic Health Record System
• Targeted Programs for Gulf War Veterans
• Questions
Department of Veterans Affairs

Major Organizational Units:

- Veterans Health Administration (VHA)
- Veterans Benefits Administration (VBA)
- National Cemetery Administration (NCA)
History

• Veterans programs date back to Colonial times
• VA created in 1930 as an independent agency
• Cabinet-level department created in 1989
• Major eligibility changes in 1996
• Now the 2\textsuperscript{nd} largest Cabinet-level department (second to DoD)
  – Budget over $87,000,000,000
    • VHA $40 B, VBA $37 B, NCA $10B
    • 210,000 employees (health, benefits, memorials)
Missions of the Veterans Health Administration

- Medical care
- Graduate medical education
- Research
- Emergency preparedness
VHA Mission 1: Medical Care

The largest integrated healthcare system in US (FY07):

- 153 hospitals (17,593 beds, 4.9M BDOC)
- 135 nursing homes (33,649 ADC)
- 73 home care programs
- 47 domiciliary programs
- 209 veterans counseling centers
- 731 clinics (62.3 M outpatient visits)
- 210,702 employees in health care system
Fiscal Year 2007 – VHA statistics

- 7.8 million total enrollees of 25 million US veterans
- 5.5 million patients treated
- $35 billion total budget (medical care)
- 63 million outpatient visits
- 17,593 average # inpatient beds
- 33,649 nursing home avg daily census
- 240 million 30-day equivalent Rx’s dispensed
- 228 million lab tests performed
21 Veterans Integrated Service Networks

VISNs are the Funding & Accountability Unit in VA

- Resources Allocated to VISNs
- Reimbursement scheme is known as VERA (Veterans Equitable Resource Allocation) model
  - Allocates according to number of patients and severity
  - Incentives: A Health System, not a Hospital System

In January 2002, VISNs 13 and 14 were integrated and renamed VISN 23
VHA Medical Care

- Enrolled veterans eligible for full spectrum of general and specialty medical/preventive services including drug benefit
- Special focus on conditions related to military service:
  - Prosthetics, rehab and blind rehab
  - Environmental exposures (agent orange, Gulf War syndrome, depleted uranium & radiation, cold injury, etc.)
  - PTSD and mental health issues
- Special focus related to VA populations served:
  - Geriatrics/extended care
  - Women Veterans programs and services
  - Chronic diseases; diabetes, cardiac, kidney, cancer, infectious diseases, mental health/substance abuse, homelessness
VHA Mission 2: Graduate Medical Education

- Affiliated with 107 of 125 U.S. Medical Schools and 1,200 education institutions
- VA has more than 5,000 affiliation agreements for Associated Health Programs
- 84,510 Total trainees
VHA Mission 3: Research

FY04: $1.5 billion for VA research ($446m VA $)

Mission: improve veterans health care
- Medical Research
- Rehabilitation Research
- Cooperative Studies (large multi-center clinical trials)
- Health Services Research

Accomplishments:
- Invention of cardiac pacemaker, CT technology
- First successful liver transplant, insulin pump
- Multi-center clinical trials; Tb, MI & CHF tx, HTN, DM
- 2 Nobel Prize winners, 6 Lasker Awards
VHA Mission 4: Emergency Responses

• VA/DoD Contingency (PL 97-174) – VA back up for DoD in event of war or national emergency involving armed conflict
• National Response Plan (NRP) Support – VA role in 7 Emergency Support Functions
• NDMS – VA, HHS, DoD, FEMA (DHS) – assists state/local govts with medical & PH disasters and hospital capacity
• Ad hoc – local responses to emergencies
Who Are VA Patients?

**Older** - Median 59y, 49% over age 65, 278,000 > 85y

**Sicker** - Compared to Age-Matched Americans
  - 3 Additional Non-Mental Health Diagnoses
  - 1 Additional Mental Health Diagnosis

**Poorer**
  - 70% with annual incomes < $26,000
  - 40% with annual incomes < $16,000
  - 31% have no health insurance

**Changing Demographics** – 7% female overall now and 10% female by 2010
  - 22.5% of outpatients less than 50 years of age are women veterans
Restructuring began in 1996

WHY?

• Declining veteran population
• Concurrent profound changes in US health care system (inpatient to outpatient focus)
• Quality and consistency of VA care needed attention
• Many reports recommended significant VA change
• Many veterans needed VA as a ‘safety net’
“Prescription for Change” 1996

- VHA restructured into Regional Networks
- Eligibility reform & defined priority groups
- Treatment Reform: Uniform Benefits Package (including a drug benefit)
- Third-party recoupment
- System-wide electronic medical record started
- Clinical benchmarks established
- Performance monitoring and accountability systems put in place
Who is VHA? 1995 vs 2005

VA has transformed from a hospital system to a comprehensive health care system

VA health care now predominantly an outpatient system
197,000 Employees (~15,000 Doctors, 56,000 Nurses, 33,000 AHP)
  • 6% decrease since 1995
    – 13,000 fewer employees than 1995

$30 Billion budget
  • 47% increase since 1995
    – Flat at ~ $19B from 1995 - 1999

5.4 million patients, ~ 7.7 million enrollees
  • 104% increase in patients treated since 1995
    – From 2.5 million patients / enrollees in 1995
Improved Efficiency: Enrollees, Patients & Resources/Patient

- Enrollees
- Veteran Patients
- Resources/Patient

Fiscal Year 1996 to 2003

- Enrollees (in Millions)
- Resources Per Patient (in Thousands)

- Improved Efficiency: Enrollees, Patients & Resources/Patient
VA Eligibility Categories

Hierarchy of Priority for VA Service reset annually

• **Priority Group 1**: Veterans with service-connected disabilities rated 50% or more disabling
• **Priority Group 2**: Veterans with service-connected disabilities rated 30% or 40% disabling
• **Priority Group 3**: Veterans who are former POWs, Purple Heart, or with service-connected disabilities rated 10% or 20%
• **Priority Group 4**: Veterans who are receiving aid and attendance or housebound benefits or who have been determined by VA to be catastrophically disabled
VA Eligibility Categories

• **Priority Group 5**: Non-service-connected veterans with income below VA Means Test thresholds (approximately $30,000 for veterans with 1 dependent)

• **Priority Group 6**: WWI, Mexican Border War, certain exposures (Agent Orange) and Gulf War illness

• **Priority Group 7**: Veterans with income above the VA Means Test threshold & income below the HUD geographic index (Copayments apply)

• **Priority Group 8**: Veterans with income above the VA Means Test threshold and the HUD geographic index (Copayments apply)

*As of Jan 17, 2003, VA is not accepting new Priority Group 8 veterans for enrollment*
VA’s Electronic Health Record
Every VA medical facility has the computerized patient record system

INSIDE POLITICS
Bush calls for electronic medical records

President: We’re kind of still in the buggy era

BALTIMORE, Maryland (AP) — When it comes to patients’ health records, the United States hasn’t left the “buggy era.” President Bush said Tuesday at a veterans hospital.

“On the research side, we’re the best,” Bush told about 120 guests, including veterans, health care professionals, doctors from Johns Hopkins Hospital and the staff from the Veterans Affairs Medical Center in Baltimore. “We’re coming up with more innovative ways to save lives. ... On the providers’ side, we’re kind of still in the buggy era.”

The president has set a goal of assuring that most Americans have electronic health records within the next 10 years. To address issues of privacy,

Foundation for VA’s “Systems Approach”
VistA Electronic Health Record
Clinical Reminders for Decision-Support

Contemporary Expression of Practice Guidelines

- Time & Context Sensitive
- Reduce Negative Variation
- Create Standard Data
- Acquire health data beyond care delivered in VA

Links Reminder With the Action With Documentation

Reminder Resolution: Pneumococcal vaccine (pneumovax)

ORDER PNEUMOCOCCAL IMMUNIZATION:
- Order for pneumococcal vaccine placed.
- Order for influenza vaccine entered.

PRIOR IMMUNIZATION:
- Patient indicated that the pneumococcal vaccine was received previously.
  Date/Time: 1997 Location: East Orange, NJ
  Comment:

REFUSAL/CONTRAINDICATION:
- Patient indicates a history of contraindication to pneumococcal vaccination.
- Pt. has an acute illness. Vaccinations will be delayed until recovery from this illness.
- Patient has a life expectancy of less than 3 months. Evaluation at this time may not be meaningful.
- Patient refuses pneumococcal immunization.
- Patient refuses all immunizations at this time.

Immunizations: PNEUMO-VAC (Historical)
Bar-Coded Medication Administration (BCMA)

BCMA Assures:
- Right Medication
- Right Dose
- Right Patient
- Right Provider
- Right Time

Virtually Eliminates Errors at the Point of Administration

... Coming Soon: Bar-Coded Lab Acquisition
CMOPs: Technology at Work
Consolidated Mail Outpatient Pharmacy

- > 200 Million “30 Day Equivalents” / Year
  (> 40K Rx per shift per CMOP)
- Performance: 5.85 Sigma
  - Wrong Medication: 0.0007%
  - Patient Satisfaction Rating: 90% VG/E
- Helped hold per prescription costs virtually constant for 5 years (~2½% increase / year), in contrast to 16% in 2004 alone, in non-VA settings (per CBO estimate)
Teleretinal Imaging for Screening Diabetic Retinopathy
Home-Telehealth

“Remote Physiological Monitoring”

Flexible Sensor Connectivity

- Thermometer
- Blood pressure
- Digital Scale
- Blood sugar
- Stethoscope
- ECG
- Pulse O₂
- Camera
Teleradiology Center

Radiology interpretation will be provided in real time to every point of care from expert centers.
My Health eVet

• Internet-based, secure *Personal Health Record*.
  – Provides veterans with copies of key parts of *their* VA health information
  – Veterans can view, retain, and update *their* personal health data (BP, glucose, wt, etc.)
  – Comprehensive, Personalized Health Education Information
  – Personalized Health Assessments

• Activate & Empower patients as (responsible) partners with health care providers in achieving optimal health, through the sharing of health information
MHV Personal Health Record

Track Health
Vitals & Readings
Labs & Tests
Health History
Family Health History
Military History
Allergies
Immunizations
Journals
Personal Health Summary

www.myhealth.va.gov
### VA Continues to Exceed HEDIS

<table>
<thead>
<tr>
<th>CLINICAL PERFORMANCE INDICATOR</th>
<th>VA FY 07 (1)</th>
<th>VA FY 06 (1)</th>
<th>HEDIS (2) Commercial 2006</th>
<th>HEDIS (2) Medicare 2006</th>
<th>HEDIS (2) Medicaid 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast cancer screening</td>
<td>86%</td>
<td>85%</td>
<td>69%</td>
<td>70%</td>
<td>49%</td>
</tr>
<tr>
<td>Cervical cancer screening</td>
<td>91%</td>
<td>91%</td>
<td>81%</td>
<td>NA</td>
<td>66%</td>
</tr>
<tr>
<td>Colorectal cancer screening</td>
<td>78%</td>
<td>76%</td>
<td>55%</td>
<td>53%</td>
<td>NA</td>
</tr>
<tr>
<td>LDL Screening after AMI, PTCA, CABG</td>
<td>93%</td>
<td>92%</td>
<td>87%</td>
<td>88%</td>
<td>76%</td>
</tr>
<tr>
<td>LDL Cholesterol &lt; 100 after AMI, PTCA, CABG</td>
<td>62%</td>
<td>60%</td>
<td>57%</td>
<td>56%</td>
<td>36%</td>
</tr>
<tr>
<td>Beta blocker on discharge after AMI</td>
<td>98%</td>
<td>98%</td>
<td>98%</td>
<td>94%</td>
<td>88%</td>
</tr>
<tr>
<td>Diabetes: HgbA1c done past year</td>
<td>97%</td>
<td>96%</td>
<td>88%</td>
<td>87%</td>
<td>78%</td>
</tr>
<tr>
<td>Diabetes: Poor control HgbA1c &gt; 9.0% (lower is better)</td>
<td>16%</td>
<td>17%</td>
<td>27%</td>
<td>27%</td>
<td>49%</td>
</tr>
<tr>
<td>Diabetes: Cholesterol (LDL-C) Screening</td>
<td>92%</td>
<td>96%</td>
<td>83%</td>
<td>85%</td>
<td>71%</td>
</tr>
<tr>
<td>Diabetes: Cholesterol (LDL-C) controlled (&lt;100)</td>
<td>64%</td>
<td>61%</td>
<td>43%</td>
<td>47%</td>
<td>31%</td>
</tr>
<tr>
<td>Diabetes: Good Control HgbA1c &lt;7</td>
<td>48%</td>
<td>47%</td>
<td>42%</td>
<td>46%</td>
<td>30%</td>
</tr>
<tr>
<td>Diabetes: Eye Exam</td>
<td>85%</td>
<td>85%</td>
<td>55%</td>
<td>62%</td>
<td>51%</td>
</tr>
<tr>
<td>Diabetes: Renal Exam</td>
<td>91%</td>
<td>66%</td>
<td>80%</td>
<td>85%</td>
<td>75%</td>
</tr>
<tr>
<td>Diabetes: BP &lt; 140/90 (measure is less than or equal to)</td>
<td>77%</td>
<td>78%</td>
<td>61%</td>
<td>58%</td>
<td>57%</td>
</tr>
<tr>
<td>Hypertension: BP &lt; 140/90 most recent visit</td>
<td>76%</td>
<td>75%</td>
<td>60%</td>
<td>57%</td>
<td>53%</td>
</tr>
<tr>
<td>Smoking Cessation Counseling (3)</td>
<td>83%</td>
<td>80%</td>
<td>74%</td>
<td>44%</td>
<td>43%</td>
</tr>
</tbody>
</table>

### Immunizations

<table>
<thead>
<tr>
<th>CLINICAL PERFORMANCE INDICATOR</th>
<th>VA FY 2007 (1)</th>
<th>VA FY 2006(1)</th>
<th>HEDIS (2) Commercial 2006</th>
<th>HEDIS (2) Medicare 2006</th>
<th>BRFSS (4) 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunizations: influenza, (note patients age groups HEDIS 50-64)</td>
<td>72% (age 50-64 match HEDIS)</td>
<td>71% (age 65 and older or high risk)</td>
<td>46%</td>
<td>NA</td>
<td>69.6% (age 65 and older or high risk)</td>
</tr>
<tr>
<td>Immunizations: pneumococcal, (note patients age groups) (4) (5)</td>
<td>90% (all ages at risk)</td>
<td>89% (all ages at risk)</td>
<td>Not Reported</td>
<td>Not Reported</td>
<td>67%</td>
</tr>
</tbody>
</table>
## QUALITY of Care
The latest Rand Corp. study found that VA patients, on average, received about two-thirds of the care recommended by national standards, compared with just half for patients at a sample of the nation’s other hospitals. Here's the breakdown:

<table>
<thead>
<tr>
<th>HEALTH INDICATOR</th>
<th>VA SCORE</th>
<th>NATIONAL SAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>67%</td>
<td>51%</td>
</tr>
<tr>
<td>Chronic care</td>
<td>72%</td>
<td>59%</td>
</tr>
<tr>
<td>Lung disease</td>
<td>69%</td>
<td>59%</td>
</tr>
<tr>
<td>Heart disease</td>
<td>73%</td>
<td>70%</td>
</tr>
<tr>
<td>Depression</td>
<td>80%</td>
<td>62%</td>
</tr>
<tr>
<td>Diabetes</td>
<td>70%</td>
<td>47%</td>
</tr>
<tr>
<td>Hypertension</td>
<td>78%</td>
<td>65%</td>
</tr>
<tr>
<td>High cholesterol</td>
<td>64%</td>
<td>53%</td>
</tr>
<tr>
<td>Osteoarthritis</td>
<td>65%</td>
<td>57%</td>
</tr>
<tr>
<td>Preventive care</td>
<td>64%</td>
<td>44%</td>
</tr>
<tr>
<td>Acute care</td>
<td>53%</td>
<td>55%</td>
</tr>
<tr>
<td>Screening</td>
<td>68%</td>
<td>46%</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>73%</td>
<td>61%</td>
</tr>
<tr>
<td>Treatment</td>
<td>56%</td>
<td>41%</td>
</tr>
<tr>
<td>Follow-up</td>
<td>73%</td>
<td>58%</td>
</tr>
</tbody>
</table>

*VA and private sector data are based on 506 veterans-affiliated hospitals in 2005. **National sample data are based on 1,000 patients at non-VA hospitals.

## Patient SATISFACTION
For the sixth year in a row, veterans in 2005 were happier than other patients with their health care.

<table>
<thead>
<tr>
<th></th>
<th>VA</th>
<th>PRIVATE SECTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient</td>
<td>83%</td>
<td>73%</td>
</tr>
<tr>
<td>Outpatient</td>
<td>80%</td>
<td>75%</td>
</tr>
</tbody>
</table>

*Out of 100. Data: American Customer Satisfaction Index.

## TECHNOLOGY Use
The VA has the most advanced electronic-records system in the U.S.

<table>
<thead>
<tr>
<th>PERCENTAGE OF NEW-DRUG AND PROCEDURE ORDERS ENTERED ELECTRONICALLY</th>
</tr>
</thead>
<tbody>
<tr>
<td>VA</td>
</tr>
<tr>
<td>Academic medical centers</td>
</tr>
<tr>
<td>Nationwide</td>
</tr>
</tbody>
</table>

Data: Commonwealth Foundation

## Cost EFFICIENCY
Ten-year cumulative percent change in costs:
- Average Medicare payment per enrollee
- Medical cost index
- VA cost per patient

Data: VA, Health & Human Services, Bureau of Labor Statistics
In the American Customer Satisfaction Index (ASCI), VHA has led private-sector health care in both inpatient and outpatient scores.

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>VHA Inpatients</td>
<td>NM</td>
<td>NM</td>
<td>82</td>
<td>81</td>
<td>81</td>
<td>84</td>
<td>83</td>
<td>84</td>
</tr>
<tr>
<td>VHA Outpatients</td>
<td>79</td>
<td>78</td>
<td>79</td>
<td>79</td>
<td>80</td>
<td>83</td>
<td>80</td>
<td>82</td>
</tr>
<tr>
<td>Medicare Recipients</td>
<td>71</td>
<td>74</td>
<td>79</td>
<td>76</td>
<td>77</td>
<td>76</td>
<td>76</td>
<td>73</td>
</tr>
<tr>
<td>Private-sector</td>
<td>70</td>
<td>69</td>
<td>68</td>
<td>70</td>
<td>73</td>
<td>76</td>
<td>71</td>
<td>74</td>
</tr>
<tr>
<td>Hospitals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

NM = Not Measured; Source: [http://www.theacsi.org](http://www.theacsi.org) (accessed April 24, 2007)
2006
“Innovations in American Government Award”

Department of Veterans Affairs electronic health records system (VistA)

Harvard University’s Ash Institute for Democratic Governance and Innovation at the Kennedy School of Government and Council for Excellence
BEST CARE ANYWHERE

Today’s troops are headed into the country’s best health-care system—the VA. If you just did a double-take, it’s time to look again at veterans hospitals. Their remarkable turnaround points the way toward curing America’s health-care crisis.

By Phillip Longman
The Best Medical Care In the U.S.
How Veterans Affairs transformed itself—and what it means for the rest of us
Programs Targeted to 1991 Gulf War Veterans
Health Care

• 335,000 of the 700,000 Gulf War Veterans have come to VA for health care

• Gulf War Veterans are eligible to participate in the Gulf War Registry
  • 14% of registered veterans have been identified as suffering from a wide variety of common and recognized illness
Health Care (cont.)

- Special Depleted Uranium Program: “DU Follow Up Program” expanded to all veterans
- Development of Clinical Guidelines by VA and DoD to assist veterans with unexplained symptoms
Health Care (cont.)

• War Related Illness and Injury Study Centers (WRIISC): provide specialized care for combat veterans for all deployments who experience difficult to diagnose illness:
  – Washington, DC – Dr. Han Kang
  – East Orange, NH – Dr. Gudrin Lange
  – Palo Alto, CA – Dr. Jerome Yesavage

• National Educational Symposia – Clinical Care for Gulf War Combat Veterans
Outreach

- Gulf War Review Newsletter
  - 39 issues have been distributed to over 400,000 veterans since 1991

- Veterans Health Initiative (VHI) Independent Study Guides
  - “A Guide to War Veterans Health”
  - “Health Effects from Chemical, Biological and Radiological Weapons”
  - “PTSD: Implications for Primary Care”
Research

- Over $250,000,000 invested in Gulf War health issues (DoD, VA, and HHS)
- VA Surveillance Cohort Study
- National Academy of Sciences/Institute of Medicine Reviews (8 reviews have been completed)
- VA research on health effects of Gulf War Continues: $6,800,000 to Gulf War research in FY 07
Compensation

• Compensation for chronically disabled Gulf War Veterans with undiagnosed illnesses

• VBA reports 3,280 Veterans have received this benefit
Conclusions

• VA health care has undergone a transformation
• Veterans’ satisfaction with VA health care and the quality of VA care are objectively measured as the best in the US in many areas
• Since early 1990’s VA has implemented multiple programs specifically targeted to the needs of veterans of the 1991 Gulf War
• VA’s commitment to veterans of the 1991 Gulf War is steadfast
• VHA looks forward to work with this Commission and to your recommendations to continue to serve the veterans of the 1991 Gulf War
"To care for him (and her) who shall have borne the battle and for his widow and his orphan."

-Abraham Lincoln, Second Inaugural address in 1865