Comprehensive Newborn Screening Program for Department of Defense Infants

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The views expressed in this presentation are those of the authors and do not reflect the official policy of the Department of the Army, Department of Defense, or U.S. Government.
“Part of the secret of a success in life is to eat what you like and let the food fight it out inside.”

Mark Twain
The Mission of the Military Health System

To enhance our nation’s security by providing health support for the full range of military operations and sustain the health of all those entrusted to our care.
Mission Parameters

**Perspective** → Global

**Primary focus** → War Fighters

**Benefits**
- Earned through service
- Uniform
- Extend to retirees and dependents (spouses and children) of active duty and retired personnel

The military health care budget is determined annually by the executive and legislative branches of the Federal Government.
Pediatrics in the US Military

- Since the 19th century, US Army surgeons have cared for soldiers’ families
- Military and civilian pediatrics have evolved together
- 1946, the first military pediatric residency program was established

Military Physicians Travel and Serve Around the World
### Military Physicians who care for Children -- 2007

<table>
<thead>
<tr>
<th>Category</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pediatricians</td>
<td>430</td>
</tr>
<tr>
<td>Pediatric Specialists</td>
<td>215</td>
</tr>
<tr>
<td>Pediatric Residents and Fellows</td>
<td>260</td>
</tr>
<tr>
<td>Family Practitioners</td>
<td>450</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>1,355</strong></td>
</tr>
</tbody>
</table>
### Military Health System
350 Hospitals and Clinics

<table>
<thead>
<tr>
<th>Location</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continental US (CONUS)</td>
<td>In 40 States</td>
</tr>
<tr>
<td>Outside Continental US (OCONUS)</td>
<td>2 States 14 countries</td>
</tr>
<tr>
<td>Tertiary Care Centers</td>
<td>17</td>
</tr>
<tr>
<td>Births to DoD Beneficiaries</td>
<td></td>
</tr>
<tr>
<td>MTF (FY04)</td>
<td>52,000</td>
</tr>
<tr>
<td>Civilian hospitals</td>
<td>50,000</td>
</tr>
</tbody>
</table>

>100,000 per year
Historically, clinical NBS practices within the military health system have generally mirrored local NBS practices.
The Current State of Newborn Screening in the DoD

- Infants born to MHS beneficiaries
  - Screened in the State system in which the MTF is located
  - Or, MTF may contract with a private lab
  - Overseas screens go to several states, including Maryland and Oregon
Challenges for Military NBS

- Military families travel frequently
- MHS is dispersed globally
  - Located in 42 states and 14 foreign nations
  - Utilizes many different NBS programs
- Patients move between military and civilian network providers
- Families often live far from extended family support systems
- Spouses deploy
The MHS possesses valuable and unique resources

- Medical home
  - Primary care manager, care coordination, Early Intervention

- Sub-specialty consultants

- Electronic medical record system
  - AHLTA
  - Registry for 8.7 million people

- Command and control
Recognition & Response

2002: Army Surgeon General ordered policy development for newborn screening

- Work Group solicited input from Army, Navy, Air Force stakeholders
- Policy signed Dec 2002
- Established scope, responsibility, procedure, and a minimum standard of core conditions to be tested
Recognition & Response

2004:

- Tricare Management Agency (TMA) requested further study
- Navy Perinatal Advisory Board recommended adoption of expanded screening
- Financial aspects reviewed

2005:

- TMA approved plan to develop a military NBS system
Newborn Metabolic Screening Integrated Project Team

- Vision for a standard approach to newborn screen for everyone in the MHS
  - Global
  - Comprehensive
  - Responsive
  - Uniform

- Wide Scope of Activity

- Broad Membership
  - All services, multiple system levels, and multiple disciplines
Integrated Project Team Process

- Conferred monthly since June 2005
- Chose to accept ACMG Expert Group recommendations
- Evaluated NBS clinical activities
- Developed EHR Registry
- Developed Educational Plan
- Established Liaison with the ACHDGDNC
Vision for Laboratory Contract

- Centralized laboratory
- Results within days, not weeks
- Secure, internet-accessible data
- Immediate access to credentialed genetic counselor for response guidelines if a result is abnormal
Under Development.....
- EHR Registry
- Case management support team
  - Short Term Follow-up
  - Long Term Follow-up
- MHS oversight and QI Committee
- State, regional, and national data sharing and collaboration
In Conclusion
“Eat food. Not too much. Mostly plants.”

Michael Pollan
*The Age of Nutritionism*. In: The New York Times Magazine, Jan 07