Defining the Role of Public and Population Health in a Changing Health Care Environment

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Our Challenge

• The United States Ranks #1 in Health Expenditures at 17.9% of GDP
  – Roughly $3 Trillion aggregate annual cost
  – $8,895 per capita in 2012
  – This crowds out other state and national priorities

• The United States has Mediocre population health outcomes
  – Ranks 34th Life Expectancy
  – Ranks 42nd Infant Mortality
The Health Impact Pyramid
A Framework for Public Health Action

Counseling and Education
Clinical Interventions
Long-lasting Protective Interventions
Changing the Context to Make Individuals' Default Decisions Healthy
Socioeconomic Factors

Increasing Population Impact
Increasing Individual Effort Needed


Leading Causes of Death-Texas 2012

<table>
<thead>
<tr>
<th>Cause of Death</th>
<th>Deaths per 100,000 Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diseases of the Heart</td>
<td>149.6</td>
</tr>
<tr>
<td>Malignant Neoplasms</td>
<td>146.2</td>
</tr>
<tr>
<td>Chronic Lower Respiratory Diseases</td>
<td>36.5</td>
</tr>
<tr>
<td>Cerebrovascular Diseases</td>
<td>35.7</td>
</tr>
<tr>
<td>Accidents</td>
<td>35.6</td>
</tr>
<tr>
<td>Alzheimer's Disease</td>
<td>19.8</td>
</tr>
<tr>
<td>Diabetes Mellitus</td>
<td>19.7</td>
</tr>
<tr>
<td>Septicemia</td>
<td>13.9</td>
</tr>
<tr>
<td>Nephritis, Nephrotic Syndrome,</td>
<td>13.5</td>
</tr>
<tr>
<td>Chronic Lower Respiratory Diseases</td>
<td></td>
</tr>
<tr>
<td>Malignant Neoplasms</td>
<td></td>
</tr>
<tr>
<td>Cardiovascular Diseases</td>
<td></td>
</tr>
<tr>
<td>Accidents</td>
<td></td>
</tr>
<tr>
<td>Chronic Lower Respiratory Diseases</td>
<td></td>
</tr>
<tr>
<td>Cerebrovascular Diseases</td>
<td></td>
</tr>
<tr>
<td>Chronic Liver Disease and Cirrhosis</td>
<td></td>
</tr>
</tbody>
</table>

Data Source: Vital Statistics Unit, Center for Health Statistics, DSHS
Actual Causes of Death Shaped by Behavior

- Tobacco
- Overweight/Obesity
- Alcohol
- Auto Accidents
- Drugs
- Suicide
- DWI
- Homicide
- Sexual Behavior

Source: Chronic Disease in Texas 2007, DSHS

Health Disparities

- Racial and Ethnic
- Geographic
- Educational and Income
Life Expectancy in Texas by Race and Ethnicity

Texas Resident Life Expectancy at Birth (Years)

- Texas
- White
- Black
- Hispanic

Infant Mortality Rate by Race / Ethnicity (2003–2012)

Deaths per 1,000 Live Births

Source: Texas data from Death Vital Records, DSHS, Center for Health Statistics; Prepared by FCHS, Office of Program Decisions Support
Texas County Health Outcomes

Source: County Health Rankings, Robert Wood Johnson Foundation, University of Wisconsin

Texas Department of State Health Services (DSHS)

Regional & Local Health Services
Disease Control & Prevention Services
Family & Community Health Services
Mental Health & Substance Abuse Services
Regulatory Services
Regulatory Services

- Food and drug safety
- Environmental health
- Radiation control
- Health care professionals
- Health care facilities
- Emergency medical services and trauma care system

Family & Community Health Services

- Specialized Health Services Section
- Nutrition Services Section
- Community Health Services Section
- Office of Title V and Family Health
Disease Control & Prevention Services

- Health promotion & chronic disease prevention
- Laboratory services
- Infectious disease prevention
- Environmental epidemiology & disease registries
2008 - 2014 Response Events

1. Hurricanes:
   - Dolly
   - Gustav
   - Ike
   - Alex

2. San Angelo
   - Yearning for Zion Ranch

3. Epi Investigations
   - Raw vegetables TB, Mercury
   - Salmonella, Measles, Mumps

4. Salmonella Outbreaks

5. H1N1 Pandemic

6. West Nile Virus

7. West Explosion

8. Ebola

Emergency Support Functions

<table>
<thead>
<tr>
<th>Emergency Support Function (ESF)</th>
<th>Primary Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Transportation</td>
<td>TDCJ</td>
</tr>
<tr>
<td>2. Communications</td>
<td>DIR</td>
</tr>
<tr>
<td>3. Public Works &amp; Engineering</td>
<td>TxDOT</td>
</tr>
<tr>
<td>4. Firefighting</td>
<td>TFS</td>
</tr>
<tr>
<td>5. Direction &amp; Control</td>
<td>DPS / GDEM</td>
</tr>
<tr>
<td>6. Shelter &amp; Mass Care</td>
<td>The Salvation Army</td>
</tr>
<tr>
<td>7. Resource Support</td>
<td>TBPC</td>
</tr>
<tr>
<td>8. Health &amp; Medical</td>
<td>DSHS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ESF Desk</th>
<th>Primary Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. Search &amp; Rescue</td>
<td>TEEX</td>
</tr>
<tr>
<td>10. Hazardous Material &amp; Oil Spill Response</td>
<td>TCEQ</td>
</tr>
<tr>
<td>11. Food &amp; Water</td>
<td>HHSC</td>
</tr>
<tr>
<td>12. Energy &amp; Utilities</td>
<td>PUC</td>
</tr>
<tr>
<td>13. Law Enforcement</td>
<td>DPS</td>
</tr>
<tr>
<td>14. Recovery</td>
<td>TDEM</td>
</tr>
<tr>
<td>15. External Affairs</td>
<td>Governor’s Office</td>
</tr>
</tbody>
</table>
Common Issues

- Incident command
- Multi-sector involvement and coordination
  - Schools, Law Enforcement, Medical Care, Public Health, Environmental agencies, etc
- Need for planning and adaptability
  - No event plays out like planned
- Specific laboratory detection
- Quarantine and Isolation
- PPE
- Need to defining the epidemiology and establish surveillance
- Science vs. speculation vs. fear
- Medical Counter Measures and Vaccines
- Travel issues
- Waste removal
- Mortuary care
- Media attention and risk communication
- Politics

Texas Health Babies Initiative

An example of Public Health and Medicaid effectively working together to improve health
Healthy Texas Babies

- Healthy Texas Babies (HTB) is an initiative to decrease infant mortality in Texas
  - Funded by Title V ($1 M/year) and state General Revenue ($2M/year)

- Goals of Healthy Texas Babies Initiative:
  - Provide local partnerships and coalitions with major roles in shaping programs in their communities
  - Use evidence-based interventions
  - Decrease preterm birth rate by 8% over 2 years
  - Save ~ $7.2 million in Medicaid costs over 2 years
Healthy Texas Babies: Expert Panel’s Statewide Impact

- Statewide collaborative focused on quality improvement at the hospital and community level
  - Position paper on perinatal regionalization
  - Developed standards for perinatal local coalitions
  - Recommendations on <39 weeks policy
  - Developed life-planning tool kit
  - Recommendations for fatherhood smartphone app

- Development of the Texas Collaborative for Healthy Mothers and Babies
  - Developing a strategic plan for state’s infant mortality reduction initiatives

Texas Infant Mortality System
Partners and Activities
http://www.americashealthrankings.org/reports/annual

Partnerships to Improve Health

Community-based Solutions

- Elected Officials
- Public Health
- Food Industry
- Urban Planners, Developers, Architects
- Providers and Hospitals
- Insurance Companies
- Community Groups
- Behavioral Health Partners
- Higher Education
- Worksites and Schools
Thank You!