Approach to Public Health Analysis

California Health Benefits Review Program

Joy Melnikow, MD, MPH
University of California-Davis
State and Local Government Benefits Association
April 17, 2012
What Are Public Health Impacts?

Impacts on:
- health of the community (rates of condition- or disease-related morbidity, mortality, incidence, prevalence, etc.)
- gender and racial/ethnic disparities in health outcomes
- premature death
- economic loss associated with disease
- long-term health impacts (beyond 12 mos.)
Inputs

Public Health Data
(surveys, registries, cost-effectiveness/benefit studies, grey literature, evidence-based studies)

Medical Effectiveness
(evidence-based research)

Cost, Coverage and Utilization
(insured persons and estimated utilization of covered benefit)

Public Health Impact:
Health outcomes
Economic loss
Long term impacts
Disparities
Step 1

- **Collect baseline data on:**
  - Frequency of related conditions in the population (incidence) and/or
  - Proportion of the population with related conditions (prevalence)
  - Utilization of treatment relevant to the mandate

- **Potential sources:** Centers for Disease Control and Prevention, California or National Health Interview Survey, disease-specific state surveys/registries, BRFS, etc.
Example: Tobacco Cessation

Proposed mandate would require coverage for tobacco cessation counseling and medications

- California Baseline data:
  - Smoking prevalence: 13.4% (gender/racial disparities evident)
  - 34,492 deaths annually (cancer, cardiovascular and respiratory disease)
  - 60.2% smokers attempted to quit in the 12 months preceding the California Tobacco Survey.
Garen: This is a crowded slide. Maybe we Dominique can think about simplifying a bit, and being mindful that our audience may not be especially technically-oriented in the public health arena

DR: Garen, is this a little better?

dritley, 3/12/2012
Step 2

- Will more people have coverage for the mandated services/treatments?
Step 3

➢ Combine ME and Cost
  ▪ Cost team estimates of change in utilization of intervention by newly covered populations, with
  ▪ ME Team rates of effectiveness of intervention

Example: Tobacco Cessation

➢ 2,364 Californians are estimated to quit annually due to mandate.
Step 4

- For any additional utilization, what is the impact on health outcomes (includes harms from intervention when relevant).

**Example: Tobacco Cessation**

- Fewer premature deaths from tobacco use (estimated 16,548 - 29,314 years of life gained annually for quitters attributable to mandate.)
# Possible PH Conclusions

<table>
<thead>
<tr>
<th>Quantitative</th>
<th>Qualitative</th>
<th>No Impact</th>
<th>Unknown Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Specific numerical estimate of insured persons with improved outcomes or reduced financial burden</td>
<td>• Indicate the direction of mandate’s effect (“likely increase/decrease in [health outcome]”)</td>
<td>• Full coverage exists at baseline or no change in utilization expected, therefore the bill has no impact</td>
<td>• Insufficient ME evidence or utilization data to make an estimate</td>
</tr>
<tr>
<td>• Tobacco Cessation</td>
<td>• Maternity Services</td>
<td>• Breast Cancer-Lumpectomy</td>
<td>• Prescription Pain Drugs</td>
</tr>
</tbody>
</table>
These examples of conclusions may be a little lengthy, but I think they are important to the audiences' understanding of how we arrive at our conclusions, and the complexity and nuance of the analyses. These are one of the few specific examples that are offered in the presentation--and I think support the generalities presented.

dritley, 3/12/2012
Challenges For CHBRP

- Quantifying impacts with limited data or literature (esp. disparities-related impacts)
- Assessing short term vs. long term impacts
- Interpreting bill language
- Lack of impact for uninsured, despite policymakers’ intent
- Short timeline!
Evidence-Based Analysis Matters

- Despite the challenges, this evidence-based approach can help decision makers understand the mandate’s potential impact.
CHBRP Reports Enhance Understanding

CHBRP reports describe

- Evidence on the medical effectiveness of the intervention
- Estimated impact of the mandate on:
  - Number of enrollees covered
  - Subsequent utilization.
- Potential cost of mandate
- Estimated changes in insured Californians’ health outcomes resulting from the mandate.