Patient Safety in the Commonwealth of Massachusetts: Current Status and Opportunities for Improvement

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RAND project

• Characterize the patient safety landscape in Massachusetts
  – Interviews with expert observers

<table>
<thead>
<tr>
<th>Background</th>
<th>Interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic expert</td>
<td>5</td>
</tr>
<tr>
<td>Health care organization</td>
<td>18</td>
</tr>
<tr>
<td>Independent quality and safety advocacy organization</td>
<td>12</td>
</tr>
<tr>
<td>Patient or caregiver</td>
<td>3</td>
</tr>
<tr>
<td>Payer and purchaser</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>41</strong></td>
</tr>
</tbody>
</table>
Patient safety in Massachusetts

1991

Betsy Lehman receives a massive dose of chemotherapy – error unnoticed for many months

1994

Harvard Medical Practice Study
Documents that 3.7% of hospitalized patients experienced an adverse event (1 in 4 due to negligence)

1998

MA Department of Public Health reportable events system modified

1999

To Err is Human published with estimate that up to 98,000 deaths each year are due to errors in care
Patient safety in Massachusetts

- **2001**: Betsy Lehman Center for Patient Safety and Medical Error Reduction launched
- **2003**: ACGME duty hour limits are imposed on residency training programs
- **2004**: AHRQ allocates $50 million to support research on patient safety
- **2008**: Federal Patient Safety Organization guidelines released
- **2009**: Federal ONC invests $19 billion in Health IT
# Massachusetts data on safety

<table>
<thead>
<tr>
<th>Event</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitalized patient had an adverse event during care&lt;sup&gt;1&lt;/sup&gt;</td>
<td>19%</td>
</tr>
<tr>
<td>On post-discharge survey, hospitalized patient reported an adverse event&lt;sup&gt;2&lt;/sup&gt;</td>
<td>23%</td>
</tr>
<tr>
<td>ICU patients who had an adverse event&lt;sup&gt;3&lt;/sup&gt;</td>
<td>20%</td>
</tr>
<tr>
<td>Patients who reported an adverse drug event in primary care practices&lt;sup&gt;4&lt;/sup&gt;</td>
<td>25%</td>
</tr>
</tbody>
</table>

<sup>1</sup>Forster et al, 2003; <sup>2</sup>Weissman et al, 2008; <sup>3</sup>Rothschild et al, 2005, <sup>4</sup>Gandhi et al, 2003
Two widely-shared views

Awareness of patient safety among health care providers is higher than at any time in the past

Nearly all of the advances in patient safety have occurred in hospitals
What types of safety risks do expert observers describe?

- Patient-specific risks
- Organizational capabilities
- Policy Influences
Leading patient-specific safety risks according to expert observers

- Health care-associated infections
- Medication errors
- Surgical risks
- Falls
- Pressure ulcers
These risks can be reduced

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Reduction/Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPOE in a tertiary hospital</td>
<td>55% decrease in serious medical errors</td>
</tr>
<tr>
<td>Pharmacist participation on rounds</td>
<td>66% decrease in preventable ordering ADEs</td>
</tr>
<tr>
<td>Bar-code eMAR in a tertiary hospital</td>
<td>41.4% decrease in med administration errors</td>
</tr>
<tr>
<td>Fall prevention training program</td>
<td>Fall rate decreased from 16.1% to 9.0%</td>
</tr>
</tbody>
</table>

1Bates et al, 1998; 2Leape et al, 1999; 3Poon et al, 2010; 4Bonner et al., 2007
Risks related to organizational characteristics and capabilities

• Lack of patient safety culture
• Failure to provide patient-centered care and engage patients and caregivers
• Health information technology
• Non-standardized care
• Lack of leadership focus on patient safety
• Limited workforce availability and capability
Policy influences

• Payment policy incentives
• Lack of a coherent reporting program
• Poorly implemented regulatory oversight and accreditation programs
Frontiers of patient safety

• Enhancing coordination of care
• Reducing diagnostic error
• Gathering data on safety in settings outside the hospital
Questions raised by our study

• How should actions that can make care safer be prioritized and coordinated among participating organizations and professionals?
• How should measurement and reporting be used?
• How can alignment be achieved between federal requirements, accreditation standards, state regulations, and organizational policies?
• How should patients, caregivers, and the public be engaged in patient safety?