Unintended Consequences of Performance Measurement

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PCPI Foundation
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Agenda

• What are unintended consequences in the context of performance measurement?
• PCPI’s current work
Definitions

• Consequences are changes to patient care, health system behavior, or provider behavior as a result of participating in performance or quality measurement
  • Consequences are intended when outcomes, as defined by the measure, improve
  • Consequences are unintended when an unanticipated change occurs, related or unrelated to the outcome defined by the measure

• Both forms of consequences can also be described as desirable or undesirable
Example

**Hospital Readmission Reduction Program (HRRP) implementation**

CMS reimbursement penalty for readmissions for AMI, HF, pneumonia

- Risk adjustment did not account for SES

**Safety net and teaching hospitals disproportionately penalized**

- Fiscally struggling hospitals have even less money to invest in quality care

**Worsening disparities**

PCPI’s Current Work

• Identified as a longer-term area of interest by the MAC in 2017

• Began reference search in 2018 for scoping study
  • US-based
  • Within the last 10 years
  • Broad keywords

• Data charting- 1,250 articles and grey literature
# Scoping study methodology


<table>
<thead>
<tr>
<th></th>
<th>Systematic review</th>
<th>Scoping study</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Study focus</strong></td>
<td>Focuses on a well-defined question</td>
<td>Addresses broader topics</td>
</tr>
<tr>
<td><strong>Study design</strong></td>
<td>Appropriate study designs identified in advance</td>
<td>Many different study designs may be included</td>
</tr>
<tr>
<td><strong>Quality of studies included</strong></td>
<td>Provides answers from a narrow range of quality assessed studies</td>
<td>Does not answer very specific research questions or address the quality of included studies</td>
</tr>
<tr>
<td><strong>Reviewing the data</strong></td>
<td>“Data extraction”</td>
<td>“Charting the data”</td>
</tr>
<tr>
<td><strong>Presentation of studies</strong></td>
<td>Evidence or findings not included in the final review may remain hidden from publication</td>
<td>Seeks to present an overview of ALL material reviewed</td>
</tr>
<tr>
<td><strong>Evidence</strong></td>
<td>Evidence is synthesized or findings from different studies are aggregated</td>
<td>Less emphasis on aggregation— no attempt to present a view regarding the weight of evidence</td>
</tr>
</tbody>
</table>
Charting the data

• Basic unit of data is the mention of an unintended consequence
  • Reference identifying information
  • Measure developer/steward
  • Measure
  • Setting
  • Type of consequence
  • Informal description of the level of evidence (theoretical, primary study)
  • How it happened
  • Suggested recommendations, if any
# Preliminary findings - Heatmap

<table>
<thead>
<tr>
<th></th>
<th>Patient satisfaction</th>
<th>Surgical quality measures</th>
<th>Public reporting</th>
<th>General performance measurement</th>
<th>Hospital Readmission Reduction Program (HRRP)</th>
<th>Other specific performance measures</th>
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Preliminary findings- Top 10%

• Public reporting programs
  • Gaming
  • Increased disparities

• Performance measurement as a concept
  • Tunnel vision

• Hospital Readmission Reduction Program (HRRP)
  • Gaming
  • Increased disparities
  • Increased morbidity and mortality
  • Unfair penalties

• Specific performance measures
  • Gaming
  • Overtreatment
  • Unfair penalties
Preliminary findings

- Much is theoretical
- Correlation \(\neq\) causation
- Divergence of pathways to consequence
  - Measures that are flawed—DOA
  - Measures that cause a consequence based on implementation factors
- String of consequences
Next steps

• How can we prevent or mitigate these unintended consequences when we develop performance measures?
References


