Measuring patient satisfaction with hospitalists:
Survey development and initial findings
Bradley R Fulton, PhD
Robert Wolosin, PhD
Kristopher H Morgan, PhD
October 30, 2012

Presenter Disclosures
Robert J. Wolosin, PhD
The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:
I am a full-time employee of Press Ganey Associates, Inc.

Hospital Medicine and Patient Satisfaction
Hospital Medicine:
Rapid Growth
Hospitalists becoming essential
Reduced presence of family/general practitioners and internists
Hospitalists role as link to hospitalized patients’ PCPs

At the same time…

Patient Satisfaction:
A key quality indicator
Measurement:

Request for a new patient satisfaction instrument…
…tailored to the hospitalist role
…better suited to meet the needs of this field

Survey Development: Focus Groups

Focus groups with providers and administrators:
identify current issues in the field
examine potential items
determine reporting needs

Primary issues included:
time with the patient
concern for patients
clarity/timeliness of explanations
interactions with family
discharge preparation

Additional issues identified:
ability to include photos on the survey
(hospitalists typically have no prior relationship with patient)
ability for the patient to rate multiple hospitalists
provider-level reporting
Survey Development: Psychometrics

Items identified in focus groups pilot-tested in 5 hospitals
Total number of physicians in pilot-test; n = 309
Standard psychometric analyses performed:
- Measures of central tendency and variance
- Response frequencies and patient comments were evaluated
- Inter-item correlations
- Factor analysis
- Multiple regression
- Corrected item-scale and item-non-scale correlations
- Cronbach’s alpha (reliability)
- Flesch-Kincaid Index
- Numerous items considered, 10 formally tested
- Poor performing items were eliminated during the process resulting in final scale comprised of eight items.

Inter-Item Correlations:
- Item “Overall rating of the hospitalist” removed; highly correlated with most other hospitalist items
- Item “I could understand my hospitalist when he or she spoke” removed; cultural sensitivity issues

Factor Analysis: Identified two factors accounting for 79.3% of variance; paralleled structure of Hospitalist and Physician sections

Predictive Validity:
1. Instrument explains 47% of variation in “likelihood of patients’ recommending the hospital they visited to others.”
2. Instrument explains 88% of variation in “patients’ overall rating of the hospitalist.”

Item-Scale & Item-Non-Scale Correlations; Reliability:

<table>
<thead>
<tr>
<th>Average Corrected Item-Scale Correlations</th>
<th>Range of Corrected Item-Scale Correlations</th>
<th>Average Corrected Item-Non-Scale Correlations</th>
<th>Range of Corrected Item-Non-Scale Correlations</th>
<th>Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>.875</td>
<td>.759-.926</td>
<td>.472</td>
<td>.279-.709</td>
<td>.967</td>
</tr>
</tbody>
</table>

Readability: Tests at 9th-grade reading level
(When the word “hospitalist” replaced with “doctor” in all items tested at 5th-grade reading level)
Having a definition of hospitalist included in the section just before the items will ensure the understandability of the survey
### Survey Launch: Initial Findings

#### Patient-Level Item and Section Descriptive Statistics

<table>
<thead>
<tr>
<th>Item</th>
<th>N</th>
<th>Missing</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time spent with you</td>
<td>1603</td>
<td>33</td>
<td>83.5</td>
<td>21.6</td>
</tr>
<tr>
<td>Friendliness/courtesy</td>
<td>1603</td>
<td>27</td>
<td>89.6</td>
<td>19.0</td>
</tr>
<tr>
<td>Concern for questions/worries</td>
<td>1603</td>
<td>47</td>
<td>86.6</td>
<td>20.9</td>
</tr>
<tr>
<td>Extent kept you informed</td>
<td>1603</td>
<td>49</td>
<td>83.9</td>
<td>22.8</td>
</tr>
<tr>
<td>How clearly things explained</td>
<td>1603</td>
<td>61</td>
<td>85.3</td>
<td>22.3</td>
</tr>
<tr>
<td>Informative dealing with family</td>
<td>1603</td>
<td>203</td>
<td>85.8</td>
<td>21.9</td>
</tr>
<tr>
<td>Hospitalist helped you prepare for home</td>
<td>1603</td>
<td>202</td>
<td>83.5</td>
<td>24.1</td>
</tr>
<tr>
<td>Your opinion of hospitalist’s skill</td>
<td>1603</td>
<td>67</td>
<td>88.3</td>
<td>20.7</td>
</tr>
<tr>
<td>Hospitalist Section Score</td>
<td>1603</td>
<td>0</td>
<td>85.3</td>
<td>20.1</td>
</tr>
</tbody>
</table>

#### Significant Differences by Gender (p < .05)

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extent kept you informed</td>
<td>85.2</td>
<td>Male</td>
</tr>
<tr>
<td>How clearly things explained</td>
<td>86.8</td>
<td>Female</td>
</tr>
<tr>
<td>Hospitalist helped you prepare for home</td>
<td>85.3</td>
<td>Male</td>
</tr>
<tr>
<td>Hospitalist Section Score</td>
<td>84.3</td>
<td>Female</td>
</tr>
</tbody>
</table>