Health Equity Quickinar Series
Session 8

Analysis and Stratification of Health Equity Data
OBJECTIVES

- Discuss the role of the HSAG HQIC data dashboard in stratifying disparities in health outcomes.
- Identify how hospitals can use internal data to stratify disparities in health outcomes.
- Review the importance of transparency of identified disparities throughout the hospital.
Data Stratification

- Data stratification can be defined as “the process of partitioning data into distinct or nonoverlapping groups.”
  - Allows for identification of potential relationships between variables and outcomes.
  - Stratified analysis can also be used to identify confounding variables.

Data Stratification (cont.)

- Hospital quality data can be stratified by multiple groups:
  - Race/ethnicity
  - Dual-eligibility status
  - Area Deprivation Index (ADI) census block group
  - Gender
  - Age

- Stratified outcomes data can be used to identify trends and potential disparities.
HSAG HQIC Performance Dashboard

- Stratifies outcome metrics by demographic and geographic categories:
  - Race/ethnicity
  - Age
  - Dual-eligibility (proxy measure for social determinants of health [SDOH])
- Allows facilities to identify potential health disparities in their outcomes.

![Readmissions: All-Cause - Demographics](chart)

The demographic rates shown are for the measure you selected by race, age, and dual-eligible status. If a rate is not available, no rate or bar is displayed.
HSAG HQIC Dashboard Limitations

• It only contains Medicare Fee-For-Service data.
  – Disparities may be missed without all-payer data.
  – Does not allow for age comparisons, applicable to hospital general patient population.

• Demographic data only contain the most recent year of data.
  – It does not allow for comparison and tracking of progress over time.

• It does not contain patient-level data.
  – Cannot identify patients who are in multiple categories.
### HSAG HQIC ADI Patient Stratification: Analyze Deprivation Level In Your Patient Population

<table>
<thead>
<tr>
<th>State</th>
<th>CCN</th>
<th>Hospital Name</th>
<th>Total Beneficiaries</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC</td>
<td>100001</td>
<td>Hospital A</td>
<td>1,597</td>
<td>1,534</td>
<td>96.1%</td>
</tr>
<tr>
<td>SC</td>
<td>100002</td>
<td>Hospital B</td>
<td>2,603</td>
<td>2,469</td>
<td>94.9%</td>
</tr>
<tr>
<td>SC</td>
<td>100003</td>
<td>Hospital C</td>
<td>200</td>
<td>192</td>
<td>96.0%</td>
</tr>
</tbody>
</table>

**Summarized Percentages:**

<table>
<thead>
<tr>
<th>ADI Ranking</th>
<th>SC 100001 Hospital A</th>
<th>SC 100002 Hospital B</th>
<th>SC 100003 Hospital C</th>
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<tbody>
<tr>
<td>85+</td>
<td>53.7%</td>
<td>20.9%</td>
<td>19.4%</td>
</tr>
<tr>
<td>76 - 84</td>
<td>320 20.9%</td>
<td>452 18.3%</td>
<td>298 19.4%</td>
</tr>
<tr>
<td>51 - 75</td>
<td>298 19.4%</td>
<td>749 30.3%</td>
<td>9 4.7%</td>
</tr>
<tr>
<td>26 - 50</td>
<td>9 4.7%</td>
<td>342 13.9%</td>
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</tr>
<tr>
<td>0 - 25</td>
<td>13 0.8%</td>
<td>11 0.4%</td>
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**Numerator:** Beneficiaries Fall in the ADI Bucket  
**Denominator:** Beneficiaries with ADI National Ranking Assigned

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**Numerator:** Beneficiaries with Specific Reason that ADI is Not Available  
**Denominator:** Beneficiaries with ADI National Ranking Not Available

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**Beneficiary’s 9-Digit ZIP Code is Not Available in BIC**

<table>
<thead>
<tr>
<th>Beneficiary’s 9-Digit ZIP Code cannot be found in the ADI Crosswalk</th>
</tr>
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Stratification of Hospital Data

• Select outcomes/quality measures to look at.
  – Outcomes could be selected for multiple reasons:
    • Literature has identified disparities.
    • To assess an ongoing/completed project.
    • Hospital has seen trends in its data that it wants to investigate further.
  – Can be a good idea to keep tabs on all measures regularly.

• Select which category to stratify by and separate data out into these groups.
  – Can be helpful to use charts, graphs, and other visuals to display the stratified data.
Stratification of Hospital Data (cont.)

- Be careful in how you interpret your stratified data.
  - Differences do not always mean disparities.
  - Confounding variables can impact the outcomes.
  - Small numerators or denominators can skew results.
- Further analysis may be necessary to identify true disparities.
  - Regression analysis can identify relationships between variables while accounting for confounding variables.
Uses of Stratified Data

• Hospitals can use stratified data to identify where the greatest disparities exist.
  – Can be used to prioritize areas for improvement.

• Stratified data can be shared with stakeholders, such as leadership, providers, and community partners.

• Hospitals can use data to better understand their patient population.
  – Can be compared against community demographic data.


Organizational Transparency

• If hospitals identify disparities, they should be transparent at all applicable organizational levels.
  – Hospitals should implement interventions to address each disparity.
  – Transparency allows for staff buy-in and understanding of why these interventions are occurring.

• Can be an opportunity to identify potential higher-level issues.
Organizational Transparency (cont.)

• Transparency helps facilitate a culture of equity.
  – Improves capacity to address identified disparities.
  – Could provide opportunities for staff education.

• Transparency allows for engagement of necessary stakeholders.
  – Community partnerships may be needed to address identified disparities.
  – Necessary hospital stakeholders also should be engaged.
Key Concepts

• Hospital data can be stratified into discrete groups to allow for identification of disparities.

• HSAG HQIC provides stratification of quality measures in its Performance Dashboard.

• Hospitals should use stratified data to identify disparities and implement interventions.

• Transparency—when a disparity is identified—allows for effective interventions and supports a culture of equity.
Join Us for the Entire Series

Recordings, slides, and resource links will be posted for on-demand access after every session.

1. Health Equity, Hospitals, and CMS Reporting
2. Engaging Leadership in Health Equity
3. Health Equity as a Strategic Priority
4. Collection and Validating REaL Data
5. Social Determinants and Social Drivers of Health
6. Screening for Social Drivers
7. Culturally Competent Data Training
8. Analysis and Stratification of Health Equity Data
9. Health Equity Interventions
10. Best Practices in Health Equity Interventions
11. Community Paramedicine
12. Identifying Community Health Disparities
13. Community Engagement—Health Equity

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Thank you!

hospitalquality@hsag.com