Disparities and Performance Measurement

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Improving Dental Quality Through Measurement
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When you use the term “disparities,” what are you referring to?
Questions

- What types of disparities are you evaluating or concerned with?
- How are oral health disparities relevant to your work?
Defining Disparities
Disparity = Inequality
A population is a health disparity population if there is a significant disparity in the overall rate of disease incidence, prevalence, morbidity, mortality or survival rates in the population as compared to the health status of the general population.

Minority Health and Health Disparities Research and Education Act of 2000

Healthy People 2020

A particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion.

http://www.healthypeople.gov/2020/about/disparitiesAbout.aspx
What is your / your organization’s operational definition of disparities … do you have one?
Definition Considerations

- Inequality or inequity
- Oral health disparity or oral health care disparity
- Is it aligned with your overall objectives?

Measurement
  - Can you measure it?
  - How will you measure it?
Definition Considerations

Your definition will have implications for measurement!

- Difference between a group relative to the general population?
- Differences between any two groups?
  - What is the reference group?
    - Largest group?
    - Highest performing group?
    - Historically advantaged group?
Reducing Oral Health Disparities
Figure 1. Life-course effects and influences on oral health and health disparities.

Emphasis on Care Systems

“Improving access to oral health care is a critical and necessary first step to improving oral health outcomes and reducing disparities.”

The Role of Performance Measurement in Reducing Disparities
The IOM identifies **equity** as one of six attributes of high-quality care.

"the goal of a health care system is to improve health status . . . in a manner that reduces health disparities among particular subgroups"

"the quality of care should not differ because of such characteristics as gender, race, age, ethnicity, income, education, disability, sexual orientation, or location of residence"

“The only way to know whether the quality of care is improving is to measure performance.”

Performance Measurement

- Critical to detect, monitor, and reduce disparities

But . . . limitations in oral health care performance measurement
- Limited availability of clear specifications
- Lack of standardization in measurement
- Limited evidence to support measures
2008
- DQA Proposed by CMS

2009
- Formation of Steering Committee

2010
- 1st DQA Meeting
Measure Development: Pediatric Oral Health Project

- Environmental Scan
- Starter Set of Concepts
- Fully Specified Measures
Initial Set of Pediatric Measures

1. Utilization of Services
2. Oral Evaluation
3. Treatment Services
4. Preventive Services
5. Care Continuity
6. Usual Source of Services
7. Topical Fluoride Intensity
8. Sealants, 6-9 years
9. Sealants, 10-14 years
10. PMPM Costs

Refer to handout!
Stratifications

- Age
- Geographic Location
- Race/Ethnicity
- Socioeconomic Status
- Language
- Health Status
Testing the DQA Measures

- Conducted by the University of Florida

- Administrative enrollment and claims data from:
  - Florida Agency for Health Care Administration – Florida Medicaid
  - Florida Healthy Kids Corporation – Florida CHIP
  - Texas Health & Human Services Commission – Texas Medicaid and CHIP
  - DentaQuest – commercial data

- Reporting period
  - Using data from CY 2010 and CY 2011; plus additional (prior) years as needed for 2-year measures and identification of elevated risk
Sample Results
Figure 1: Percentage of Publicly Insured Children Enrolled at Least 6 Months who Received an Oral Evaluation, Stratified by Age, CY 2010 (Program 1) & CY 2011 (Program 2)
Figure 2: Percentage of Publicly Insured Children Enrolled at Least 6 Months who Received an Oral Evaluation, Stratified by Race/Ethnicity, CY 2010 (Program 1) & CY 2011 (Program 2)

- **PROGRAM 1**
  - Total: 26.3%
  - Non-Hispanic White: 25.0%
  - Non-Hispanic Black: 24.2%
  - Hispanic: 30.4%

- **PROGRAM 2**
  - Total: 66.6%
  - Non-Hispanic White: 55.8%
  - Non-Hispanic Black: 62.7%
  - Hispanic: 72.3%
Figure 3: Percentage of Publicly Insured Children Enrolled at Least 6 Months who Received an Oral Evaluation, Stratified by Geographic Location, CY 2010 (Program 1) & CY 2011 (Program 2)
Figure 4: Percentage of Publicly Insured Children, 6-9 Years Old, Enrolled at Least 6 Months at Elevated Risk who Received a Sealant on a Permanent First Molar, Stratified by Race/Ethnicity, CY 2010 (Program 1) & CY 2011 (Program 2)

<table>
<thead>
<tr>
<th>Program</th>
<th>Race/Ethnicity</th>
<th>CY 2010 (%)</th>
<th>CY 2011 (%)</th>
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</thead>
<tbody>
<tr>
<td>Program 1</td>
<td>Total</td>
<td>21.0%</td>
<td>23.7%</td>
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<tr>
<td></td>
<td>Non-Hispanic White</td>
<td>21.2%</td>
<td>22.1%</td>
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<td>Non-Hispanic Black</td>
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<td></td>
<td>Hispanic</td>
<td>21.9%</td>
<td>24.3%</td>
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<tr>
<td>Program 2</td>
<td>Total</td>
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<td>Hispanic</td>
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</table>
Figure 5: Percentage of Publicly Insured Children, 6-9 Years Old, Enrolled at Least 6 Months at Elevated Risk who Received a Sealant on a Permanent First Molar, Stratified by Geographic Location, CY 2010 (Program 1) & CY 2011 (Program 2)

**Program 1**
- Total: 21.0%
- Urban Core: 20.9%
- Suburban: 22.8%
- Rural: 19.5%

**Program 2**
- Total: 23.7%
- Urban Core: 24.1%
- Suburban: 22.4%
- Rural: 21.9%
Interpreting and Using the Data
What Constitutes a Disparity?

- Differences between which groups?

- What constitutes a sufficient “difference” to be considered a disparity?
  - Statistical significance?
  - Certain number of percentage points?
What Constitutes a Disparity?

- In practice, there are a wide range of approaches


- Variation in approach is not problematic in and of itself... but approach should not be ad hoc

  align measurement with operational definition and disparity-related objectives – plan prospectively!
Other Considerations

- Observed variation may reflect the influence of other factors
  - Evaluate variations within sub-strata
  - Multivariable analyses

- Balancing complexity in measurement with ease of reporting and interpretation
Measurement Challenges

- Lack of data
- Lack of standardization
- Dentistry: lack of widely adopted diagnosis codes which impedes:
  - Stratification by oral health status
  - Evaluating appropriateness of services
  - Risk adjustment

Age
Geographic Location
Race/Ethnicity
Socioeconomic Status
Language
Health Status
Ways to Explicitly Incorporate Disparities Reduction into Performance Programs

- Establish baseline rates and reward improvement relative to baseline rather than basing performance on an absolute benchmark.

- Include disparities reduction as a basis for rewards in performance-based incentive programs.

- Stratify results – evaluate, monitor, and reward performance within stratifications.

Discussion Questions

• What operational definition of disparities is aligned with your/your organization’s mission and objectives?

• How can you make that definition actionable?

• What data do you have available to you that can help you to identify disparities?

• How do you (or can you) use and act upon disparities data in your organization?
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