HCUP Data in the National Healthcare Quality & Disparities Reports: Current Strengths and Potential Improvements

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Outline

- What is HCUP?
- How are HCUP data and tools used in NHQR/DR and State Snapshots?
- What are potential improvements or enhancements?
- Discussion
The HCUP Partnership:
A Voluntary Federal-State-Private Sector Collaboration

Legend
- HCUP Partner
- Potential Partner
- Does Not Collect Statewide Inpatient Data
- Not a Partner

40 states in partnership
90% of all discharges
HCUP Is a Family of Databases, Tools, and Products

HCUP Databases
Software, Tools, Measures
Research Publications
User Support
# What is HCUP? 
And what is it **not**?

<table>
<thead>
<tr>
<th>HCUP is...</th>
<th>HCUP is <strong>not</strong>...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discharge database for health care encounters</td>
<td>A survey</td>
</tr>
<tr>
<td>All payer, including the uninsured</td>
<td>Specific to a single payer, e.g. Medicare</td>
</tr>
<tr>
<td>Hospital, ambulatory surgery, emergency department data</td>
<td>Outpatient visits, pharmacy, laboratory</td>
</tr>
<tr>
<td>Accessible multiple ways: raw data, regular reports, on-line (HCUPnet)</td>
<td>Just another database</td>
</tr>
</tbody>
</table>
## AHRQ Quality Indicators (QIs)

- Developed at behest of state partners
- Use existing hospital discharge data
- Incorporate severity adjustment
- Current modules: Inpatient, Patient Safety, Pediatric and Neonatal, Prevention
- Include composites
- Growing use for reporting and P4P
- NQF endorsement for 40+ so far
- CMS using 9 under new Inpatient Payment rule
- Evidence-based public reporting template available
- 14 states use AHRQ QIs for public reporting
14 States Use AHRQ QIs for Public Hospital Reporting

- Texas
- New York
- Wisconsin (parts of state)
- Colorado
- Oregon
- Massachusetts
- New Jersey
- Vermont
- Utah
- California
- Ohio
- Kentucky
- Florida
- Iowa
- Texas
Study Shows Cost-effective Enhancements to Admin. Data*

- Assessed impact of incrementally adding more complex clinical information
- Administrative data can be improved at relatively low cost by:
  - Adding present on admission (POA) modifiers
  - Adding numerical lab data on admission
  - Improved coding
- AHRQ Awarded pilots in VA, FLA, MN, planning contract in WA to show proof of concept


Preventable Hospitalization Costs: A County-level Mapping Tool

- Potentially Preventable Hospitalizations cost over $30B a year.
- Maps show the admission rates for health problems by county.
- Calculates cost savings if admissions are reduced.
- Can add information about local populations; show number of persons at greatest risk for health problems in each county.
NEW! Portal for States, Communities, Others to Display, Analyze Data

- Query paths currently in HCUPnet
- Results based on AHRQ QIs
- Preventable Hospitalization Costs mapping tool
- New ways of presenting information
  - Beyond tables
  - QI Reporting Template
- Other AHRQ tools? Other information?
- Strategies for Improvement
# 2008 Race-Ethnicity Data Collection by HCUP States

<table>
<thead>
<tr>
<th>Categories Consist with OMB Standard</th>
<th># States</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997 Directive (white, black, AIAN, Asian, NHOPI)</td>
<td>9</td>
</tr>
<tr>
<td>- Separate Ethnicity Question</td>
<td></td>
</tr>
<tr>
<td>- Ethnicity Combined with Race</td>
<td>4</td>
</tr>
<tr>
<td>1977 Directive (white, black, AIAN, API)</td>
<td>14</td>
</tr>
<tr>
<td>- Separate Ethnicity Question</td>
<td></td>
</tr>
<tr>
<td>- Ethnicity Combined with Race</td>
<td>3</td>
</tr>
<tr>
<td>No Hispanic coding</td>
<td>3</td>
</tr>
<tr>
<td>No Hispanic, API or AIAN</td>
<td>1</td>
</tr>
<tr>
<td>No Race-Ethnicity</td>
<td>6</td>
</tr>
</tbody>
</table>
SID Disparities Analysis File Drawn from Best States

23 State Inpatient Databases, 2004
Hospitals with Good Race-Ethnicity Coding

5 Strata (same as NIS)

40% Stratified Sample of Hospitals

SID disparities analysis file
N = ~1,900 Hospitals
N = ~15 million dis.

U.S. Region
Urban/Rural
Teaching Status
Ownership/Control
Bed Size
HCUP Strengths for Use in NHRQ/NHDR and State Snapshots

- National data, local drill-down
- Robust for subgroup analysis
- All patients, including uninsured
- Includes charge & calculated cost data
- NQF-endorsed quality measures
- Efficiency measures and data beginning
- Timeliness good and improving
- Strong data on race and ethnicity
- Tools for national and local action
- Technical assistance for users
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<th>HCUP Databases</th>
<th>2007 NHQR</th>
<th>2007 NHDR</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCUP Databases</td>
<td>Nationwide Inpatient Sample</td>
<td>Disparities analysis file derived from 23 State Inpatient Databases</td>
</tr>
<tr>
<td>Prevention Quality Indicators</td>
<td>6</td>
<td>10</td>
</tr>
<tr>
<td>Pediatric Quality Indicators</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Inpatient Quality Indicators</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Patient Safety Indicators</td>
<td>27</td>
<td>20</td>
</tr>
</tbody>
</table>
HCUP in the 2007 NHQR and NHDR

NHQR: National Estimates using Quality Indicators
- Current quality by population group
  - age, gender, community income, payer, urban-rural
- Current quality by hospital characteristics
  - region, ownership, teaching, urban-rural, bed size

NHDR: National Estimates using Quality Indicators
- Estimates by HCUP uniform race-ethnicity groups
  - White, black, Hispanic, Asian/Pacific Islanders
- Estimates by race-ethnicity by population and hospital characteristics
State Statistics in NHQR and State Snapshots

- HCUP Partners volunteer for participation, participation growing every year
- State statistics for selected QIs
- Collaborate with HCUP Partners in using the State Snapshots
  - Prepare a press release package for them, FAQs for press inquiries
  - “Challenges in Utah’s Health Care” report by Utah Dept of Health
Efficiency Chapter- New in 2007 NHQR

- National admissions and costs for aggregate PQIs
  - Trends 1997, 2000-2004

- Relative hospital cost efficiency index
  - 2000-2004
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Likely Short-Term Improvements

- State Statistics
  - Add new states
  - Add breakouts by race-ethnicity, community income for a disparities focus
  - Work with Partners to take advantage of State Snapshots

- Efficiency
  - All-payer readmission costs in selected states by selected conditions
Vision for HCUP and Hybrid Data Strategy

- Improve **timeliness**
- Provide on-line all-payer **market-level data** on cost, quality, efficiency, price.
- Add clinical detail, data links for **accuracy, credibility**
- Expand **outpatient** reach (e.g. physician, episode)
- Pilot **cross-site** data, new data links
- New **tools** for expanded data
- Additional **states**, as feasible
- Develop, validate, maintain, deploy **measures in priority areas**
- Expand **data elements** to align with levers of change
- **Tools for change**
How HCUP/QI Improvements Could Strengthen NHQR/DR

<table>
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<th>HCUP/ QI Vision</th>
<th>NHQR/DR Improvement</th>
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<tbody>
<tr>
<td>Improve timeliness, clinical robustness</td>
<td>Data more credible, actionable</td>
</tr>
<tr>
<td>Expand EQUIPS, other tools</td>
<td>Data more actionable</td>
</tr>
<tr>
<td>Add state partners</td>
<td>Local data is actionable in more states</td>
</tr>
<tr>
<td>Expand technical assistance and outreach</td>
<td>Data more actionable, at national and local levels</td>
</tr>
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Frontier in All-Payer Claims Data: Data ACROSS Sites:

Hospital Data
ED Data
A. Surg. Data
Cross-site Data
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<th>NHQR/DR Improvement</th>
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<td>Add outpatient, cross-site data</td>
<td>Expands scope</td>
</tr>
<tr>
<td>Add ED measures, episode measures</td>
<td>Expands scope</td>
</tr>
<tr>
<td>Add efficiency measures</td>
<td>Expands scope</td>
</tr>
<tr>
<td>Add/improve race/ethnicity data, e.g. on UB-04</td>
<td>Improves scope, accuracy of data on disparities</td>
</tr>
<tr>
<td>Add measures on priority populations</td>
<td>Expands scope, data on disparities</td>
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http://www.hcup-us.ahrq.gov/
http://qualityindicators.ahrq.gov/