Medicare Quality Monitoring System (MQMS): Monitoring Healthcare with Administrative Data

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MQMS is a public health surveillance system

A public health surveillance system provides the ongoing, systematic collection, analysis, interpretation, and dissemination of health-related data to help guide policy, intervention, and evaluation.
Purpose and Objectives of MQMS

Purpose: To monitor and assess changes in outcomes and processes of care using administrative data.

Objectives:
- Surveillance – Trends and variations
- Support public reporting – Provider quality measures
- Further analysis – Underlying factors
- Forecast – Utilization and impact
How does MQMS fit into the big picture of CMS quality improvement efforts?
CMS Quality Improvement Efforts

- Quality Improvement Programs: QIOs and ESRD networks
- Public reporting
- Demonstrations and pilots
- Beneficiary education
- Performance measurement development
CMS Quality Improvement Domains

- Provider types
  - Nursing homes
  - Home health care agencies
  - Hospitals
  - Physicians

- Other domains
  - Medicaid
  - ESRD
  - Managed care
MQMS intends to provide input/feedback to the QI strategy.
STRATEGY FOR HEALTH CARE SAFETY AND QUALITY

1. Evaluate Priorities
   - Manage process in partnership with stakeholders
2. Select priority areas
3. Adopt or develop measures
4. Collect & analyze data
5. Identify improvement opportunities and select appropriate improvement interventions
   - Establish & enforce standards
   - Give plans, doctors, & providers technical assistance
   - Promote or create collaborations and partnerships
   - Give consumers assistance and information to make choices
   - Structure coverage and payments to improve care
   - Reward desired performance

Evaluation & research on the priority areas
MQMS intends to monitor changes over time.
Medicare Quality Legislative and Policy Timeline

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
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<tbody>
<tr>
<td>1992</td>
<td>HIPAA</td>
</tr>
<tr>
<td>1993</td>
<td>BBA</td>
</tr>
<tr>
<td>1994</td>
<td>M+C</td>
</tr>
<tr>
<td>1995</td>
<td>Increasing enrollment</td>
</tr>
<tr>
<td>1996</td>
<td>Decreasing enrollment</td>
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<tr>
<td>1997</td>
<td>3rd SOW</td>
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<tr>
<td>1998</td>
<td>4th SOW</td>
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<tr>
<td>2003</td>
<td></td>
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<tr>
<td>2004</td>
<td></td>
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</tbody>
</table>

- **HCQII:**
  - AMI

- **HCQIP:**
  - AMI
  - Heart Failure
  - Pneumonia
  - Stroke
  - Diabetes
  - Breast cancer

- **Public Reporting Initiative**

- **Demonstrations and Pilots**

- **MQMS**
Uses of MQMS Data by CMS

Intended uses:

- Identify potential quality problems
- Target interventions
- Allocate resources
- Generate hypotheses

Potential uses:

- Understand underlying factors
- Evaluate impact of quality programs
- Evaluate impact of QIOs and CMS quality initiatives
- Forecast Utilization and impact
Where are we?

Conceptualization → Production → Dissemination → Translate data into action → Evaluation
What Is Next?

- Publications
- Reports and tables on CMS web site: www.cms.hhs.gov/researchers/mqms
- Evaluate and forecast payment policies
- Explore methods for public reporting
What’s in the MQMS system?
Components

- **Population** – Medicare FFS beneficiaries
- **Data** – Medicare inpatient claims (MEDPAR) and enrollment data (Denominator) 1992-2001, survey data
- **Quality measures** – Hospitalizations, mortality, readmission, LOS, patient safety events, diabetes process of care and complications, health status
- **Risk adjustment** – Currently age and sex adjusted; developing and exploring other risk adjustment methodologies
Clinical Areas

1. Health Status
2. Acute myocardial infarction (AMI)
3. Heart failure (HF)
4. Pneumonia
5. Diabetes
6. Stroke
7. High-risk surgeries
8. Bene Demographics & Utilization
9. Patient Safety (AHRQ)
10. Preventable Hospitalizations (AHRQ)
Statistical Presentation

- **National Level**
  - Entire FFS population, no sampling

- **State Level**
  - Cross-sectional, comparison to national mean

- **Subgroups**
  - Age group, sex, race, census region, dual enrollment, rural/urban, reason for entitlement
Outputs

- **Web site** ([www.cms.hhs.gov/researchers/mqms](http://www.cms.hhs.gov/researchers/mqms))
  - Trends (1992-2001) by state and demographic group
  - Highlights reports

- **Databases** – 1992 – 2001, claims level and aggregate level (state, demographic group, and hospital [coming soon])

- **Documentation** – Computer program code, databases
Papers Presented

- Trends in
  - Patient safety
  - Preventable hospitalizations
  - Diabetes care