Medicaid Analytic eXtract (MAX)

Presentation to the

Department of Health and Human Services

Data Council

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Medicaid Person-Level Data Background

- **Medicaid Tape-to-Tape Project**
  - 1980 to early 1990s
  - Five states
  - Prototype for later data collection
- **Medicaid Statistical Information System (MSIS)**
  - **From 1987 to 1998**
    - Voluntary participation by states (5-38 states)
    - State Medicaid Research Files (SMRFs)
  - **1999 and following**
    - Mandatory for all states
    - Medicaid Analytic eXtract (MAX)

MAX — What is it?
An Overview

- **Data derived from MSIS** (7 calendar quarters)
- **Created for analytic uses**
    - Research/evaluation
    - Epidemiology
    - Statistics/forecasting
- **Calendar Year** (begins 1999, SMRF - prior years)
- **Event Based**
    - Occurrence of eligibility
    - Final action events (hospital stays, visits, etc.)
    - Dates of service

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MAX Data Sets

- **Person Summary File**
  - Eligibility (annual and monthly)
  - Managed care enrollment
  - Utilization and Medicaid payment by type of service
- **Claims Files**
  - Inpatient hospital
  - Long term care
  - Prescription drug
  - Other Services
- **Claims for**
  - Fee-for-service
  - Prepaid managed care (premium payments only)

Why Do We Need MAX?

- **Eligibility**
  - Retroactive eligibility in proper chronology
  - Eligibility codes – verified and improved
  - Eligibility data added to each claim
- **Services (Claims)**
  - Final action events (interim claims combined)
  - Organized by dates of service
  - Type of service – verified and regrouped
- **Person Summary File**
  - Monthly eligibility and demographics
  - Summary of claims data by type of service

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Medicaid Data Enhancements Eligibility

- **More detail on Medicaid eligibility**
  - Dual (Medicare and Medicaid) status
    - Qualified Medicare Beneficiaries (QMBs)
    - Specified Low-Income Medicare Beneficiaries (SLMBs)
    - Other
  - Medicare HIC number
  - Medicaid case number
  - Enrollment in prepaid managed care
- **Other program eligibility**
  - TANF
  - SCHIP

Medicaid Data Enhancements Services

- **More data on conditions and treatments**
  - Diagnosis codes
  - Procedure codes
- **Improved coding for services**
  - Waivers
  - Cost center data for hospitals
  - Additional types of service
    - DME and supplies
    - Adult day care
    - Other
  - Maternal Delivery Indicator

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Special MAX Enhancements
Data Linkages

- **Link to Medicare Enrollment Data Base (EDB)**
  - Best way to identify dual eligibles
  - Begin and end dates of Medicare eligibility
  - Other Medicare data (e.g. primary language, date of death)
- **Link to First Data Bank (FDB) Data**
  - Prescription drugs
  - Link on National Drug Code (NDC)
  - Therapeutic classes (clinical use)
  - Other FDB data (e.g. generic, OTC or prescribed drug)
- **Capability for other linkages (e.g. SSA)**

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Challenges in Developing Consistent Medicaid Data

- **Medicaid differences…**
  - Across states (program)
  - Over time (program)
  - When Fiscal Agents change (data)
- **Eligibility** - Review and edit state mapping
- **Type of service**
  - Review and edit state mapping
  - Add new types of service
- **Create "final action events"**
  (e.g. stays, visits, etc.)

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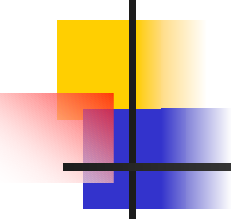
MAX/SMRF Data Products
The Data

- **Who has access?**
  - Governed by the Privacy Act/applicable HIPAA regulations
  - Research protocols must be reviewed
  - A Data Use Agreement (DUA) must be filed
  - A CMS processing fee may apply
- **What data are available?**
  - **Years prior to CY 1999 (SMRF)**
    - 1992-1998 – 25-29 states full data
    - 1987-1991 – 5 states, data quality?
  - **Years after CY 1998 (MAX)**
    - CY 1999 available currently
    - CY 2000 available late Spring 2004
    - All states, with caveats

MAX/SMRF Data Products Documentation

- **Documentation on the Web**
- **Data Dictionaries**
  - General information
  - Better descriptions of data elements
  - Improved source information
  - Addition of user notes
- **Data Validation Reports**
- **Data Anomaly Reports**
  - Valid data, but unexpected results (e.g. broken time series, new covered service)
  - Data inconsistencies (can't be fix)

Who uses MAX?

- **Centers for Medicare & Medicaid Services**
  - Research/evaluation
  - Actuarial analysis
  - Policy analysis
  - Epidemiology
  - Disparities in health care
  - Developing quality indicators
  - Modeling/simulation for drug policy
- **Other Federal**
  - ASPE, HRSA, AHRQ, NCI and Others
- **Academics**
- **Consultants**

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Medicaid Data Limitations

- **Eligibility**
  - Minimal information on other insurance coverage
  - No beneficiary name or address
  - Other data unavailable (e.g. income, other programs)
  - Eligibility "Churning"
- **Services**
  - Only during spells of eligibility
  - Only Medicaid covered services (coverage varies by state)
  - Incomplete for duals (residual after Medicare payment)
  - Incomplete for persons in prepaid plans

Medicaid Data Limitations

- **Payments**
  - Missing some payments
    - Aggregate adjustments
    - End-of-year settlements
    - Disproportionate Share Hospital (DSH)
  - Incomplete for third-party payments
  - Drug payment amounts are prior to rebates
- **Completeness**
- **Timeliness**
- **No provider characteristics**

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