What Is the Transformed Medicaid Statistical Information System (T-MSIS)?

• Next generation of federal data on Medicaid and CHIP, replacing the Medicaid Statistical Information System (MSIS)

• States and territories submit data from their Medicaid Management Information System to the Centers for Medicare & Medicaid Services (CMS) in the T-MSIS format

• T-MSIS data are the basis for the T-MSIS Analytic Files (TAF)
What Is the TAF?

• An enhanced version of the T-MSIS data tailored to the research needs of those who use Medicaid and CHIP data

• Replaces the Medicaid Analytic eXtract (MAX) data as the next generation of research-ready Medicaid and CHIP data

• Includes data on:
  • Beneficiary demographics
  • Eligibility
  • Program enrollment
  • Managed care
  • Providers
  • Service use
  • Payments
Relationship Between Data Sources

T-MSIS ➔ TAF ➔ RIF

Many relational segments ➔ Streamlined for analytic use ➔ External research version of the TAF

Easier to use and better functionality
Purpose of the TAF

• Analyzing T-MSIS data can be a challenge
  • Files are large and complex
  • Updated frequently

• CMS created the TAF to support analysis, research, and data-driven decisions on key dimensions of Medicaid and CHIP
  • Expenditures
  • Enrollment patterns
  • Program evaluation
  • Policy assessment
  • Health care quality
  • Provider participation
TAF File Types

• **Annual Demographic and Eligibility (DE) file**
  - Demographic, eligibility, and enrollment data on beneficiaries enrolled for at least one day during the calendar year

• **Four monthly claims files**
  - Inpatient hospital services
  - Long-term care services
  - Other services
  - Pharmacy claims

• **Each claims file consists of two separate but linkable files: a header file and a line file**
# Data in the TAF Claims Files

<table>
<thead>
<tr>
<th>File</th>
<th>Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inpatient (IP)</td>
<td>• Inpatient hospital claims</td>
</tr>
<tr>
<td>Long-Term Care (LT)</td>
<td>• Nursing facility&lt;br&gt;• Intermediate care facility services for individuals with intellectual disabilities&lt;br&gt;• Mental health facility services&lt;br&gt;• Independent (free-standing) psychiatric wings of acute care hospitals</td>
</tr>
<tr>
<td>Other Services (OT)</td>
<td>• Physician services&lt;br&gt;• Outpatient hospital services&lt;br&gt;• Dental services&lt;br&gt;• Other physician services&lt;br&gt;• Clinic services&lt;br&gt;• Laboratory services&lt;br&gt;• X-ray services&lt;br&gt;• Sterilizations&lt;br&gt;• Home health services&lt;br&gt;• Personal support services&lt;br&gt;• Managed care capitation payments</td>
</tr>
<tr>
<td>Pharmacy (RX)</td>
<td>• Drugs&lt;br&gt;• Other pharmacy-provided services</td>
</tr>
</tbody>
</table>
Criteria for Including Claims in the TAF

- Active claims with service dates during the reference month
- Non-denied claim headers
- Non-void claim headers
- Non-duplicate claim headers
  - Five data elements make up the “record key” that identifies unique claim headers:
    - Submitting state code
    - Original internal control number (ICN)
    - Adjustment ICN
    - Adjustment indicator
    - Adjudication date
  - All active T-MSIS claim header records that have identical record-key data are excluded
Criteria for Including Claims in the TAF (cont’d)

- **Claim lines that correspond to included claim headers**
  - Corresponding headers and lines have the same data elements in the record key
  - All lines (including denied lines) that correspond to accepted headers are included in the TAF line-level file
  - All lines that correspond to excluded headers are excluded from the TAF claims files

- **Final action claim headers**—last adjudicated claim after all adjustments are accounted for
Differences Between MAX and the TAF

- **MAX files are organized by state and year, whereas the TAF DE is organized by year only, and TAF claims files are organized by month.**

- **New types of files in the TAF**
  - The TAF DE file corresponds to the MAX Person Summary eligibility component.

- **The TAF includes hundreds of additional data elements compared with MAX.**

- **Submission frequency for T-MSIS, the TAF’s source data, is monthly rather than quarterly, as it was for MSIS.**
Differences Between MAX and the TAF (cont’d)

• **Some data elements in MAX do not have a perfect TAF analog**
  - Example: In MAX, a beneficiary's eligibility for Medicaid or CHIP is based on MSIS definitions of maintenance assistance status and basis of eligibility, whereas eligibility in the TAF is based on the T-MSIS eligibility group code

• **The volume of claims in MAX and in the TAF may be very different because substantial policy changes were made during the transition from MSIS to T-MSIS (e.g., adult expansion and changes in managed care)**
# Differences Between MAX and the TAF by Topic

<table>
<thead>
<tr>
<th>Topic</th>
<th>MAX</th>
<th>TAF</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHIP claims</td>
<td>Does not include separate CHIP claims</td>
<td>Claims files include separate CHIP claims</td>
</tr>
<tr>
<td>Adjustment algorithm</td>
<td>Adjustment algorithm to create ‘final action event’ records is tailored to each state’s unique way of adjusting claims</td>
<td>A uniform adjustment algorithm applies to all states, except Illinois, which has its own adjustment algorithm</td>
</tr>
<tr>
<td>Claim type “other”</td>
<td>Does not include claims with “other” claim type codes</td>
<td>Claims files include claims with “other” claim type codes&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Data quality</td>
<td>Production includes many data-cleaning business rules and extensive validation and data-quality reviews at the federal level</td>
<td>Production includes few data-cleaning business rules, and states are responsible for the quality of their data</td>
</tr>
<tr>
<td>Headers and lines</td>
<td>IP, LT, and RX file rows represent claim headers, and OT rows represent claim lines</td>
<td>IP, LT, OT, and RX files are each separated into claim header files and claim line files</td>
</tr>
<tr>
<td>Beneficiary identification (ID)</td>
<td>MAX uses state-provided crosswalks to assign the same MSIS ID over time</td>
<td>System-generated, unique beneficiary IDs are applied to TAF records without referencing state-provided crosswalks</td>
</tr>
</tbody>
</table>

<sup>a</sup> Including other fee-for-service claim, other capitated payment, other managed care encounter, and other supplemental payment
# TAF Users

<table>
<thead>
<tr>
<th>TAF Users</th>
<th>Center for Medicaid and CHIP Services</th>
<th>Center for Medicare and Medicaid Innovation</th>
<th>CMS Center for Program Integrity</th>
<th>CMS Office of the Actuary</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMS Office of Enterprise Data and Analytics</td>
<td>Office of Inspector General</td>
<td>Government Accountability Office</td>
<td>Congressional Budget Office</td>
<td></td>
</tr>
<tr>
<td>Medicaid and CHIP Payment and Access Commission</td>
<td>Census Bureau</td>
<td>Agency for Healthcare Research and Quality</td>
<td>Assistant Secretary for Planning and Evaluation</td>
<td></td>
</tr>
<tr>
<td>Centers for Disease Control and Prevention</td>
<td>Contractors for CMS and other federal agencies</td>
<td>Kaiser Family Foundation</td>
<td>Researchers</td>
<td></td>
</tr>
</tbody>
</table>
How to Access the TAF RIF

• Users may access the TAF RIF in the CMS Virtual Research Data Center, also known as the Chronic Conditions Data Warehouse

• Users outside of CMS may request access to the TAF RIF through the Research Data Assistance Center (ResDAC) – www.ResDAC.org

• Access to the TAF RIF is provided to researchers, government agencies, and contractors approved under a data use agreement for research purposes subject to the provisions of the Privacy Act system of records notice for these data
Documentation and Support

• **TAF RIF Documentation**
  - TAF RIF User Guide
  - Codebook
  - File layouts

• **Additional Support Materials**
  - TAF data quality resources available on [DQ Atlas](#)
  - TAF availability chart (indicates when states transitioned to T-MSIS)
  - Crosswalk of MAX-to-TAF support materials
  - TAF technical guidance documents

• **Support is available at** [www.ResDAC.org](http://www.ResDAC.org)