Introduction to the Transformed Medicaid Statistical Information System (T-MSIS) Analytic Files (TAF)

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

- Next generation of federal data on Medicaid and the Children’s Health Insurance Program (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  Research Identifiable Files

External research version of the TAF

Easier to use and better accessibility
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 Files

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

• **Annual Managed Care Plan (APL) file**
  - Information regarding the characteristics, locations, population enrolled, service areas and operating authorities for all Medicaid- or CHIP-eligible health plans or managed-care entities active at least one day during the calendar year, as submitted to T-MSIS by their respective state agencies.

• **Annual Provider (APR) file**
  - Information regarding the characteristics, taxonomies/classifications, enrollment, affiliated groups, affiliated programs, locations, licensing/accreditations, identifiers and bed types for all Medicaid- or CHIP-eligible providers active at least one day during the calendar year, as submitted to T-MSIS by their respective state agencies.
TAF File Types-Claims Files

• **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 claim-header level file and a claim-line level 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</td>
</tr>
<tr>
<td></td>
<td>• Intermediate care facility services for individuals with intellectual disabilities</td>
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<tr>
<td></td>
<td>• Mental health facility services</td>
</tr>
<tr>
<td></td>
<td>• Independent (free-standing) psychiatric wings of acute care hospitals</td>
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<tr>
<td>Other Services (OT)</td>
<td>• Physician services</td>
</tr>
<tr>
<td></td>
<td>• Outpatient hospital services</td>
</tr>
<tr>
<td></td>
<td>• Dental services</td>
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<tr>
<td></td>
<td>• Other physician services</td>
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<tr>
<td></td>
<td>• Clinic services</td>
</tr>
<tr>
<td></td>
<td>• Laboratory services</td>
</tr>
<tr>
<td>Pharmacy (RX)</td>
<td>• Drugs</td>
</tr>
<tr>
<td></td>
<td>• Other pharmacy-provided services</td>
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<tr>
<td></td>
<td>• X-ray services</td>
</tr>
<tr>
<td></td>
<td>• Sterilizations</td>
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<tr>
<td></td>
<td>• Home health services</td>
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<td></td>
<td>• Personal support services</td>
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<tr>
<td></td>
<td>• Managed care capitation payments</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 made**
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 eligibility information in the MAX Person Summary file
  - The TAF APL and APR do not have corresponding MAX files

- **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(^a)</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>CCW BENE ID is added to the TAF to facilitate tracking beneficiaries over time and across states, and linking to other CMS data</td>
</tr>
</tbody>
</table>

\(^a\) Including other fee-for-service claim, other capitated payment, other managed care encounter, and other supplemental payment
# TAF Users

<table>
<thead>
<tr>
<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>
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</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>
</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>
</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>
</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 available at the Chronic Conditions Data Warehouse website**
  • TAF RIF User Guide
  • Codebook
  • File layouts

• **Additional Support Materials available at Medicaid.gov**
  • TAF availability chart (indicates when states transitioned to T-MSIS)
  • Crosswalk of MAX-to-TAF support materials
  • TAF technical guidance documents

• **TAF data quality resources available at DQ Atlas**

• **Support is available at ResDAC**