



# TAF Technical Guidance: Claims Files

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## I. Introduction

More than 70 million people in the U.S. are covered by Medicaid or the Children’s Health Insurance Program (CHIP) (Centers for Medicare & Medicaid Services 2019a). States administer the Medicaid program and share the responsibility for funding and program administration with the federal government (Title XIX of the Social Security Act from 1965). The Patient Protection and Affordable Care Act of 2010 (the ACA) made a number of changes to the Medicaid program, including expanding eligibility to adults with an income up to 138 percent of the federal poverty level; to date, more than half of the states have adopted this expansion. States also have the option to use CHIP funding to provide coverage for additional low-income children (Title XXI of the Social Security Act) in three ways: (1) by expanding eligibility for their Medicaid programs (referred to as Medicaid Expansion, or M-CHIP); (2) by creating a program apart from their existing Medicaid programs (referred to as Separate CHIP, or S-CHIP); or (3) by adopting a combination of the two approaches. For more information about the Medicaid and CHIP programs, see the Centers for Medicare & Medicaid Services’ (CMS) website (<http://www.medicaid.gov>).

Although all Medicaid programs must cover a standard set of mandatory benefits, states can cover additional optional benefits for all beneficiaries through their state plan or through waivers for a targeted population. States also have significant latitude in how they deliver and pay for covered services. They may reimburse health care providers for services delivered to Medicaid and CHIP beneficiaries by paying directly for each covered service on a fee-for-service (FFS) basis or by paying a flat monthly payment per beneficiary for a contracted set of services to another entity—such as a managed care plan—which then assumes responsibility for delivering care to the beneficiary. States also expend Medicaid funds on the following: Medicare Part A and Part B premiums for beneficiaries who are dually eligible for Medicare; premium assistance to enroll certain Medicaid beneficiaries into private coverage; supplemental payments above the standard fee schedule or other standard payment; supplemental lump sum payments to hospitals and other providers that are not tied to an individual service (often referred to as service tracking payments); and flat fees for providers for primary care case management. States report all of these service use and payment records to CMS in the federal Transformed Medicaid Statistical Information System (T-MSIS).

CMS administers T-MSIS to improve the quality of care and program integrity and to meet stakeholder needs. Although states submit a wide variety of information into T-MSIS, the system is not optimized for conducting analyses. To meet this need, CMS constructs a research-optimized version of T-MSIS data called the T-MSIS Analytic Files (TAF).

## II. T-MSIS, TAF, and TAF RIF

To fully understand the contents and limitations of the TAF data when used for research purposes, it is important to be aware of the structure of T-MSIS, the source data for all TAF products. States submit into T-MSIS both service use records (including FFS claims and managed care encounters) and payments records (including capitation payments made to managed care plans and supplemental or service tracking payments made to providers) together in claims files organized by service and provider type (Table 1). Institutional inpatient services and payments are captured in the inpatient (IP) file; institutional long-term care services and payments are captured in the long-term care (LT) file; all other medical

services and payments are captured in the other services (OT) file; and prescription drug fills and pharmacy payments are captured in the pharmacy (RX) file.

**Table 1. TAF claims files**

File	Type of claims, encounters, and payment records included
IP	<ul style="list-style-type: none"> <li>• Hospital inpatient facility</li> </ul>
LT	<ul style="list-style-type: none"> <li>• Nursing facilities</li> <li>• Intermediate care facilities for individuals with intellectual disabilities</li> <li>• Mental health facilities</li> <li>• Independent (free-standing) psychiatric wings of acute care hospitals</li> </ul>
RX	<ul style="list-style-type: none"> <li>• Prescribed drugs and over-the-counter drugs filled at a pharmacy</li> <li>• Durable medical equipment (select types)</li> <li>• Other services provided by a pharmacy</li> </ul>
OT	<p>All medical claims, encounters, and payments not captured in the IP or the LT files, including but not limited to:</p> <ul style="list-style-type: none"> <li>• Physician services (provided in inpatient and outpatient settings)</li> <li>• Outpatient hospital services</li> <li>• Dental services</li> <li>• Other professional services</li> <li>• Clinic services</li> <li>• Laboratory services</li> <li>• X-ray services</li> <li>• Sterilizations</li> <li>• Home health services</li> <li>• Personal support services</li> <li>• Durable medical equipment (select types)</li> <li>• Managed care capitation payments</li> </ul>

States submit service use and payment records to T-MSIS on a rolling basis after they are adjudicated and paid. One important implication of this is that an individual service may be represented by multiple records across different state T-MSIS submissions, in the form of original, void, or replacement claims.

The size, complexity, and frequency of updates to the T-MSIS data make it very challenging to use for analytic purposes. The TAF is a good alternative because CMS has both optimized these files for analytics and tailored the data to the research needs of the Medicaid and CHIP data user community. The TAF claims files are organized into monthly files based on service date (rather than submission date as in T-MSIS), and they include only the final-action service use record rather than all of the original, void, and replacement claims that states submit to T-MSIS. More detail on how T-MSIS records are selected and transformed into the TAF are included in Section IV below.

The TAF are released as TAF Research Identifiable Files (RIF).<sup>1</sup> The TAF RIF include annual files that contain demographic and eligibility information for all Medicaid- and CHIP-eligible beneficiaries as well as monthly claims files that contain service use and payment records.<sup>2</sup> The four monthly claim files—the inpatient file (IP), the long-term care file (LT), the pharmacy file (RX), and the other services file (OT)—are the focus of this technical user guidance document.

### III. Completeness and quality of TAF data

Information on the completeness and quality of key TAF data elements in each year can be accessed through *DQ Atlas*, available at [Medicaid.gov/dq-atlas](https://www.Medicaid.gov/dq-atlas). The *DQ Atlas* is an interactive, web-based tool that allows users to explore the quality and usability of the TAF for their analytic needs. The data quality topics in the *DQ Atlas* cover beneficiary information, service use information, payments, expenditures, information about providers, and the completeness of the enrollment and claim files. Specific topics relevant to each section of this technical guidance document are noted in the footnotes.

### IV. Records in the TAF claims files

States submit service use and payment records into T-MSIS formatted as one header record and one or more line records that link to the header. Header records include summary information about the claim as a whole, whereas line records include detailed information about the individual goods and services billed as part of the claim.

CMS creates the TAF claims files by selecting the active T-MSIS header records that represent final-action claims. To do this, all versions of a claim must be grouped together into a “claim family,” and the final-action algorithm selects the version that represents the final-action claim.<sup>3</sup> Next, all claim lines

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<sup>1</sup> During the transformation into RIFs, some TAF data elements are suppressed, changed, or renamed. For more details on the difference between the pre-RIF and RIF version of the TAF data, including a crosswalk of variable names, see “Production of the TAF Research Identifiable Files (RIFs),” available in the Resources section of *DQ Atlas*.

<sup>2</sup> For the purpose of defining enrollment types, Medicaid includes Medicaid Expansion CHIP (M-CHIP). The CHIP enrollment type is exclusively for Separate CHIP, or S-CHIP.

<sup>3</sup> For more information about states in which the final-action algorithm cannot reliably identify final-action claims, see “Final Action Status in T-MSIS Claims,” available in the Resources section of *DQ Atlas*.

affiliated with the selected final-action headers are selected for the TAF.<sup>4,5</sup> In some cases, final-action header records and their associated lines are excluded from the TAF when, for example:

- The final-action header represents a voided claim
- The final-action header represents a fully denied claim
- The header is an apparent duplicate of other header records in the claims family<sup>6</sup>

After records have been selected for the TAF, they are grouped into monthly files based on the service date (see Table 2 for which data elements are used to assign records to monthly files). When a service date cannot be determined because there are no data in the relevant date fields, the record is dropped from the TAF.

**Table 2. TAF inclusion criteria**

File	Inclusion criteria for monthly file
IP	Month/year of the discharge date; or, when the discharge date is unavailable, the most recent service end date on the claim line; or when the service end date among the claim lines is missing, the most recent service begin date on the claim line
LT	Month/year of the service end date
RX	Month/year of the prescription fill date
OT	Month/year of the service end date on the header; or, when the service end date on the header is missing, the service begin date on the header; or, when the service begin date is missing, the most recent service end date on the claim line

**Expected variation in claims volume.** States may choose the populations and benefit categories they cover, and as a result, their Medicaid and CHIP programs vary in the characteristics of their covered populations and in their benefit packages. The number of claims and average claims volume per beneficiary in the TAF claims files are therefore likely to vary somewhat by state. This is particularly true in the LT file, reflecting not only significant differences in how states instruct providers to bill for these

<sup>4</sup> Because of limitations in its claims processing system, Illinois captures adjustments to original claims as incremental credits or debits rather than voiding the original claim and submitting a replacement record with the new payment amount. As a result, the version of a record with the latest adjudication date may not represent the final action claim as it does in all other states. To ensure the TAF correctly captures all expenditures reported by Illinois into T-MSIS, all service use records are included in the IP, OT, LT, and RX files. This means that in some cases, the TAF will include multiple versions of a single claim for Illinois, so including all records in an analysis will overcount service utilization. For more information, see the technical user guidance, “How to Use Illinois Claims Data,” available in the Resources section of *DQ Atlas*.

<sup>5</sup> The TAF retains all lines associated with a header, including denied line-level records associated with a non-denied header claim. Denied line records can be identified by one of the following claims status codes (CLL\_STUS\_CD): 026, 26, 087, 87, 542, 585, and 654.

<sup>6</sup> T-MSIS claims are uniquely identified by a set of five data elements reported by the states, collectively called the “record key.” The TAF variable names for these data elements include: SUBMTG\_STATE\_CD, ICN\_ORIG, ICN\_ADJ, ADJDCTN\_DT, and LINE\_ADJSTMT\_IND. In some cases, states submit records to T-MSIS that have the same information in all five data elements; such records are considered duplicates even if other fields in the records have unique information. Because the TAF selection criteria for claims incorporates only the five data elements that make up the record-key, the TAF algorithm cannot identify which claim lines belongs to which claim header among a set of duplicate claim headers (that have identical record key data) should be selected. As a result, the TAF algorithm excludes all T-MSIS records that have identical record-key data.

services but also the extent to which state Medicaid programs have shifted toward providing home and community-based services for beneficiaries who need long-term services and supports.

**Variation in claims volume that indicates a concern about data quality.** Although some variation in claims volume is expected because of state-level variation in Medicaid eligibility and benefits, an extremely low or high volume of claims relative to most other states may indicate data completeness or quality issues in T-MSIS or in the TAF. States with an extremely low volume of claims are typically missing information in the T-MSIS data that leads those records to be excluded from the TAF. In some cases, the missing data are so extensive that a state's TAF claims file is unusable.

An unusually high volume of claims may indicate that a state is submitting certain types of claims in the wrong file, or it may be submitting line-level records as header records. TAF users may be able to correct for these data quality issues in their analyses.<sup>7</sup> For example, if a state has an unusually high volume of records reported in its IP or LT files, TAF users should consider using data elements such as Type of Bill to identify non-inpatient or non-long term care claims, respectively, and remove them from analyses of these files.<sup>8</sup>

## V. Linking header-level and line-level records

Each claim in the TAF is structured to capture one header record and one or more line records.<sup>9</sup> Header-level records capture data that apply to the entire claim. Line-level records capture data about the specific goods or services provided to a beneficiary as part of the overall service. A full claim record may have one claim header and many claim lines, or in the case of payment records, one claim header and no claim lines.

Similar to T-MSIS, the TAF organizes the claim header records in one file and the claim line records in a separate file. TAF header and line records must be linked to obtain complete information about a claim or payment record. They should be linked by using the TAF data analytic run ID (**DA\_RUN\_ID**), which identifies the TAF production run that produced the TAF file, and the linking variable **\*\_LINK\_KEY**, where \* represents the claims file of interest (IP, LT, RX, or OT). The link key variables include the file version, the year/month of the file, the submitting state code, the original internal control number (ICN), the adjustment ICN, the adjudication date, and the adjustment indicator.

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<sup>7</sup> For more information about states with an unusually low or high claim volume of claims for each file type, see "Claims Volume - IP," "Claims Volume - LT," "Claims Volume - OT," and "Claims Volume - RX" in the Explore by Topic section of *DQ Atlas*.

<sup>8</sup> Header records in the IP file are expected to have Type of Bill values of 011x, 012x, or 085x, which correspond to inpatient hospital or critical access hospital services. Records with other Type of Bill values may represent outpatient hospital or outpatient facility records that a state erroneously included in its T-MSIS IP submissions. For information on the Type of Bill values expected in each claims file, see the Background and Methods materials in "Type of Bill - IP" in the Explore by Topic section of *DQ Atlas*.

<sup>9</sup> The TAF production algorithm includes final-action claim headers and all their associated line records but only for T-MSIS claim lines that can be linked to a T-MSIS claim header. If any of the variables that are used to link a claim line to a claim header are different, the claim line will become an "orphan" claim line and TAF excludes "orphan" claim lines.

## VI. Linking claim and eligibility records

Some analyses may require linking claim records to the eligibility record that represents the beneficiary who received the service. To do so, TAF users should first link line-level claim records to header-level records as detailed above, and then link the header record to an eligibility record in the TAF annual Demographic and Eligibility (DE) file. Header claim records and DE records should be linked using the submitting state code (**SUBMTG\_STATE\_CD**), unique beneficiary identifier<sup>10</sup> (**MSIS\_IDENT\_NUM** or **BENE\_ID**), and the file year (**\*\_FIL\_DT**, where \* represents the file being linked such as DE, IP, OT, LT, or RX).

As part of the TAF production process, dummy records are added to the DE file that represent unique beneficiary identifiers appearing on claims but for which states did not submit any eligibility information. If TAF users wish to remove these dummy records before linking claims and eligibility records, in order to retain only claims that match to beneficiaries reported by the state as being enrolled, they should exclude DE records where the missing eligibility data indicator (**MSG\_ELGLTY\_DATA\_IND**) is set equal to 1.

## VII. Identifying different types of records in the claims files

For many analyses, TAF users will want to include or exclude certain types of records in the claims files. Table 3 shows the recommended claim types for different analyses. The claims files include both service use records (FFS claims and managed care encounters) as well as records that represent financial transactions made by the Medicaid or CHIP agency outside of the typical claims adjudication process (capitation payments, supplemental payments, and service tracking claims). Some types of records are available in the TAF but are excluded from the TAF RIF.<sup>11</sup> The TAF RIF does not include records for service tracking claims or for supplemental payments in which the Medicaid identification number begins with a “&.” All other supplemental payment records are included.

**Table 3. Claim types recommended for various analyses**

Analyses	Claim types to include	Claim types to exclude
Analyses of service use	FFS claims Managed care encounters	Capitation payments Supplemental payments Service tracking claims <sup>a</sup>
Analyses of state Medicaid or CHIP expenditures	FFS claims Capitation payments Supplemental payments Service tracking claims <sup>a</sup>	Managed care encounters

<sup>a</sup>Service tracking claims are available in the TAF but are excluded from the TAF RIF.

<sup>10</sup> The MSIS ID is the state-assigned unique beneficiary identifier present in the T-MSIS data submitted by states, while the BENE ID is the federally assigned unique beneficiary identifier that is added to the TAF RIF to allow linkage with Medicare data for dually eligible beneficiaries. For more information on these data elements, see “Unique Beneficiary Identifiers in the TAF RIF” in the Resources section of *DQ Atlas*.

<sup>11</sup> For a full listing of records not available in the TAF RIF, see “Production of the TAF Research Identifiable Files (RIFs),” available in the Resources section of *DQ Atlas*.

The types of information on each record type will differ. For example, we would expect to see diagnosis codes on FFS claims and managed care encounter records but not on financial transactions. The claim type code (CLM\_TYPE\_CD) is the best method for differentiating among the types of records in the TAF claims files.<sup>12</sup> Table 4 shows the claim type code values that should be used to identify specific types of records.

**Table 4. Values for claims type code (CLM\_TYPE\_CD), by program type and record type**

Record type	Definition	Claim type code values by program		
		Medicaid or Medicaid-expansion CHIP	Separate CHIP	Other
FFS	Claims paid by the state to the provider for services rendered	1	A	U
Capitated payment	Fixed per beneficiary per month payments made by states on behalf of Medicaid and CHIP beneficiaries <sup>a</sup>	2	B	V
Managed care encounter	Records submitted by managed care organizations that represent claims submitted by providers to a managed care organization	3	C	W
Service tracking claim <sup>b</sup>	Lump sum payments to providers that cannot be attributed to a specific Medicaid or CHIP beneficiary <sup>c</sup>	4	D	X
Supplemental payment	Payments above the capitation fee or set payment rate for services provided to a specific Medicaid or CHIP beneficiary <sup>d</sup>	5	E	Y

<sup>a</sup> Payments with claim types 2, B, and V include those made to Medicaid managed care plans, to providers for primary care case management, to Medicare for premium payments on behalf of dually eligible beneficiaries, and to other private plans for premium assistance.

<sup>b</sup> Service tracking claims are available in the TAF but are excluded from the TAF RIF.

<sup>c</sup> The Medicaid identification number (MSIS\_IDENT\_NUM) on service tracking claims usually begins with “&” to indicate that the payment record cannot be linked to a specific beneficiary identifier.

<sup>d</sup> Supplemental payments can be attributed to a specific person but not always to a specific service.

In some cases, TAF users may want to restrict their analyses to claims covered under a specific program (for example, they may need to exclude S-CHIP claims). The claim type code (CLM\_TYPE\_CD) can also be used to do this. TAF users should also note that the claim type code includes values (U, V, W, X, and Y) for “other” types of records that the state did not classify as either Medicaid or CHIP payment records. These records may or may not represent services that qualify for federal matching funds under Title XIX or Title XXI. As states appear to use these records for different reasons, TAF users will need to decide on a state-by-state basis whether to include the records in their analyses.<sup>13</sup>

<sup>12</sup> For more information about the quality of the claim type code variable, see “Supplemental Payments” and “Non-Program (Other) Claims” in the Explore by Topic section of *DQ Atlas*.

<sup>13</sup> For more information about the states that use the “other” claim type code, see “Non-Program (Other) Claims” in the Explore by Topic section of *DQ Atlas*.

The claim type code cannot be used to identify claims that are partly covered by Medicare. TAF users who want to identify such claims should use the crossover claims indicator variable (XOVR\_IND). The crossover claims indicator variable is useful when conducting analyses of beneficiaries who are dually eligible for Medicare and Medicaid.

### VIII. Identifying and using managed care encounter data

The claim type code (CLM\_TYPE\_CD) is one of the best ways to identify managed care encounter records. However, for more detailed information on the entity that adjudicated and paid for services delivered under managed care, TAF users can also rely on the managed care plan ID number (MC\_PLAN\_ID), which is a unique, state-assigned number that represents the health plan under which the service was provided. If TAF users want to identify managed care encounters for a specific plan type, such as a comprehensive managed care plan or a prepaid health plan, they must link the managed care plan ID with the 16 monthly managed care plan type variables (MC\_PLAN\_TYPE\_CD1\_mm-MC\_PLAN\_TYPE\_CD16\_mm) in the TAF annual demographic and eligibility file or with the managed care plan type variable (MC\_PLAN\_TYPE\_CD) in the TAF managed care plan file.

The quality of managed care encounter data is generally highest in the IP and OT files and lowest in the LT file.<sup>14</sup> TAF users should be mindful that some states do not require comprehensive managed care plans to cover services that would be included in the LT or RX files and might therefore have few or no encounters in these files. Similarly, the services that states require behavioral health organizations to cover vary considerably by state. Therefore, plans or states with no encounters in certain files may not necessarily indicate a data quality issue.

### IX. Identifying service use and payment records for specific Medicaid programs

The TAF claims files include two variables that indicate whether services were covered under a specific Medicaid program or a state waiver program. TAF users interested in identifying claims related to types of Medicaid programs should rely on the program type code (**PGM\_TYPE\_CD**) or the waiver type code (**WVR\_TYPE\_CD**) as follows:

- **PGM\_TYPE\_CD** indicates whether a service was provided under a special Medicaid program, such as Indian Health Services or Money Follows the Person.
- **WVR\_TYPE\_CD** specifies the waiver type under which an eligible individual is covered and received services. These waivers are 1915(b), 1915(c), 1115, and 1332.<sup>15</sup>

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<sup>14</sup> For more information on the quality of encounter data for comprehensive managed care plans, see “CMC Plan Encounters - IP,” “CMC Plan Encounters - LT,” “CMC Plan Encounters - OT,” and “CMC Plan Encounters - RX” in the Explore by Topic section of *DQ Atlas*.

<sup>15</sup> For more information about how well the number of 1915(c) participants compare to the CMS 372 report, see “1915(c) Participation” in the Explore by Topic section of *DQ Atlas*. There are additional data elements in the TAF Annual Demographic and Eligibility file to indicate whether a beneficiary received coverage through other state plan options including 1915(a), 1915(i), 1915(j), and Community First Choice/1915(k).

## X. Identifying service use and payment records for specific time frames

TAF users may be interested in identifying claims and encounter records for services that occurred during a specific time frame. To do so, users can subset files by date by relying on different date variables, depending on the claim file and whether claim header-level or line-level variables are required for the analysis. The IP and LT header-level records include the admission date (**ADMSN\_DT**), which represents the date on which the beneficiary was admitted to the facility, and the discharge date (**DSCHRG\_DT**), which represents the date on which the beneficiary was discharged from the facility.<sup>16</sup> The OT header-level records include service beginning dates (**SRVC\_BGNG\_DT**) and service ending dates (**SRVC\_ENDG\_DT**).

Some states are known to incorrectly report discharge dates on LT header records even when beneficiaries are not discharged and remain at the facility. In 2016, as many as 15 states had a non-missing discharge date on more than 98 percent of their LT headers, even though these claims often represent weekly, biweekly, or monthly interim bills for extended stays in long-term care facilities that should not have a discharge date. TAF users should be cautious in relying solely on the admission and discharge dates reported on individual LT headers to determine the number of stays or average length of stay in long-term care facilities, as these dates may not be accurate.<sup>17</sup>

The IP, LT, and OT line-level records include service beginning dates (**SRVC\_BGNG\_DT**) and service ending dates (**SRVC\_ENDG\_DT**) for the specific service represented by the line. If a service is received during a single visit with a provider, the service beginning and ending dates will generally be the same. If a service involved multiple visits on different days, or if the period of care extended for two or more days, then the service beginning date is the date on which the service covered by the claim began, and the service ending date is the date on which the service covered by the claim ended.

In the RX file, the header-level fill date (**RX\_FILL\_DT**) represents the date on which a drug, device, or supply was dispensed by a provider. TAF users who want to approximate the time frame during which a beneficiary received drug treatment can use a combination of the fill date (**RX\_FILL\_DT**) and the number of days' supply dispensed by the provider (**SUPLY\_DAYS\_CNT**). For example, if a beneficiary was dispensed a seven-day (**SUPLY\_DAYS\_CNT**) supply of a particular drug on January 1, 2016 (**RX\_FILL\_DT**), a TAF user may choose to assume that the final day of treatment was on January 7, 2016. Note that this method is a proxy for identifying the time frame, and it relies on the assumption that a beneficiary took the medication as prescribed, which may not be correct.

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<sup>16</sup> For more information about the validity of admission and discharge dates, see “Admission Date - IP,” “Admission Date - LT,” “Discharge Date - IP,” and “Discharge Date - LT” in the Explore by Topic section of *DQ Atlas*.

<sup>17</sup> TAF users can review the recommended method for identifying unique inpatient stays in “Recommended Method for Identifying Inpatient Hospital Stays,” available in the Resources section of *DQ Atlas*. TAF users who wish to analyze long-term care stays can apply this approach to the claims in the LT file.

## XI. Classifying and analyzing service use records

### A. Distinguishing between institutional and professional claims

Providers submit all medical claims on either an institutional claim form or a professional claim form. Institutional claims are often referred to as “UB-04 claims” when submitted in paper form or as “837I claims” when submitted in electronic form. Professional claims are referred to as “CMS-1500 claims” when submitted in paper form or as “837P” when submitted in electronic form. Appendix Figures A.1 and A.2 show each form.

In general, institutions such as hospitals, nursing facilities, intermediate care facilities for individuals with intellectual or development disabilities, rehabilitation facilities, home health agencies, and clinics (including federally qualified health centers and rural health clinics) submit institutional claims. Physicians (both individual and groups), dentists, other clinical professionals, free-standing laboratories and outpatient facilities, ambulances, and suppliers of durable medical equipment submit professional claims. Patient visits to a facility, such as an inpatient hospital, generally result in both an institutional claim and a professional claim—for example, for the physician services.

It is important for TAF users to be able to distinguish between institutional and professional claims because the standardized fields in institutional and professional forms, and therefore the information available for each type of claim, differ slightly. The IP and LT files include only institutional claims. The OT file contains a mix of institutional and professional claims. To identify the former in the OT file, TAF users should select records with a valid type of bill code (**BILL\_TYPE\_CD**) on the header record or a valid revenue center code (**REV\_CD**) on one or more line records associated with the claim.<sup>18</sup> Both of these data elements are for fields that are available only on the forms for institutional claims. Records in which the type of bill and revenue center codes are missing are likely to represent professional claims, particularly if the place of service (**SRVC\_PLC\_CD**) is not missing. Place of service is a data element that is available only on the forms for professional claims, and it should be missing on records that represent institutional claims. Procedure codes (**PRCDR\_CD**) should always appear on professional claims, but they sometimes appear on institutional claims as well, and as a result, they do not reliably differentiate between claim types.<sup>19</sup>

### B. Identifying claims and encounters for specific procedures or services

TAF users may want to identify records for specific procedures or services, such as claims for the treatment of a substance use disorder or for a Caesarean section. The most reliable way to identify claims for specific services is to use the procedure codes, which capture the CPT, HCPCS or ICD-10-PCS code that describes a service or good delivered by a provider to a beneficiary on the specified date of service. TAF users will need to create their own list of procedure codes that pertain to the specific service(s) they are investigating. To identify procedure codes for specific analyses, TAF users can obtain

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<sup>18</sup> For more information about which states have data quality issues related to the type of bill variable, see “Type of Bill - IP,” “Type of Bill - LT,” and “Type of Bill - OT” in the Explore by Topic section of *DQ Atlas*.

<sup>19</sup> For more information about identifying institutional or professional claims, see “Place of Service” in the Explore by Topic section of *DQ Atlas*.

CPT codes from the American Medical Association, and they can access Level II alphanumeric HCPCS codes and ICD-10-PCS codes on the CMS website.<sup>20</sup>

Records in the IP file can have up to six procedure codes, which are captured on the header record. The principal header-level procedure code (**PRCDR\_1\_CD**) is intended to be used for definitive treatment, not for diagnostic or exploratory purposes. Hospitals can use the additional procedure codes (**PRCDR\_2\_CD – PRCDR\_6\_CD**) and the related data elements (**PRCDR\_\*\_CD\_DT**, **PRCDR\_\*\_CD\_IND**) to record additional procedures. Records in the OT file have one procedure code (**PRCDR\_CD**) on each line record, which captures the service or good delivered by a provider to a beneficiary on a specified date of service. The LT and RX files do not have procedure codes.

Some states use state-specific procedure codes rather than the nationally recognized HCPCS, CPT, or ICD-10-PCS procedure codes. State-specific procedure codes can make it challenging for TAF users to identify the services received by beneficiaries in these states because there is no general catalogue or listing of these codes and their meaning.<sup>21</sup>

Some institutional claims may not have a procedure code. However, TAF users may be able to rely on the revenue code (**REV\_CD**) to identify the general type of service associated with a line record on an institutional claim. For example, there are revenue codes that identify emergency room services, laboratory services, and services provided in intensive care units.

The type of service code (**TOS\_CD**) is available on the line records. This data element, which the states report in their T-MSIS claims records, is intended to map each service provided to a Medicaid or CHIP beneficiary to standardized service categories. Although most states submit valid type of service codes on nearly all records in the IP, LT, OT, and RX files, there is substantial variation across states in the frequency with which various types of service codes are used, suggesting that states differ in how they apply the type of service codes to the same type of record.<sup>22</sup> This is particularly apparent for services that meet the definition of both the older, broadly defined codes used in MSIS (such as inpatient hospital) as well as the more granular codes newly available in T-MSIS (such as critical access hospital inpatient services, which is a subset of inpatient hospital services). Many states appear to use the most broadly defined codes from among the set of applicable type of service codes, which makes it difficult or impossible to use the type of service code to make meaningful comparisons of the use of specific services across states. TAF users should be very cautious when using the type of service data element to systematically identify a specific service across different states without including information from other fields, such as procedure or revenue codes.

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<sup>20</sup> The HCPCS code set is available at <https://www.cms.gov/Medicare/Coding/HCPCSReleaseCodeSets/index.html>. The ICD-10 code set is available at <https://www.cms.gov/Medicare/Coding/ICD10/index.html>.

<sup>21</sup> For more information about the accuracy of procedure code variables, see “Procedure Codes - IP,” “Procedure Codes - OT Professional,” and “Procedure Codes – OT Institutional” in the Explore by Topic section of *DQ Atlas*.

<sup>22</sup> For more information about how often the type of service code is missing on claim records, see “Type of Service - IP,” “Type of Service - LT,” “Type of Service - OT,” and “Type of Service - RX” in the Explore by Topic section of *DQ Atlas*.

### C. Identifying services delivered by specific types of providers

TAF users may want to identify the providers or categories of providers who deliver or bill for services rendered to Medicaid and CHIP beneficiaries. A “provider” could be an institution, a group of individual clinicians, or an individual clinician. A record in the TAF could include information for up to six different providers affiliated with the service (for example, the servicing provider and the billing provider), depending on the file type. Table 5 shows the TAF provider variables and indicates the claims files in which each variable appears. Not all provider variables are present in every TAF claims file. For example, the IP and LT files have variables for the admitting provider, whereas the OT and RX files do not.

The TAF claims files have several variables that describe each provider type. Two of these variables can be used to identify a unique provider across claims: (1) the National Provider Identifier (NPI), which is the unique, 10-digit identification number that the National Plan and Provider Enumeration System (NPPES) assigns to each HIPAA-covered health care provider; and (2) the state-assigned unique identifier used in the state’s Medicaid Management Information System. The variables for servicing and billing NPI providers are generally well-reported by the states but NPIs are not required for atypical providers such as those that offer taxi services, home and vehicle modifications, and respite services. TAF users should note, however, that a small number of states are struggling to report provider NPIs, especially for dispensing providers and prescribing providers.<sup>23</sup> In some states, provider NPIs are commonly available on FFS claims but not on managed care encounters, or vice versa. TAF users interested in using provider NPIs should assess the level of missingness for the specific claims needed for their analyses.

**Table 5. Provider variables across the TAF files**

Provider	Variable prefix	Description	IP	OT	LT	RX
Admitting	ADMTG_PRVDR_*	The provider, hospital, or other institution responsible for admitting a patient	X		X	
Billing	BLG_PRVDR_*	The entity responsible for billing for services	X	X	X	X
Dispensing	DSPNSNG_PD_P RVDR *	The provider responsible for dispensing a prescription drug				X
Health Home	HH_PRVDR_*	A provider enrolled in a Health Home care model		X		
Operating	OPRTG_PRVDR_*	The provider who performed the surgical procedure	X			
Referring	RFRG_PRVDR_*	The provider who recommended the servicing provider to the patient	X	X	X	
Servicing	SRVCNG_PRVDR _*	The provider who delivers or completes a particular medical service or nonsurgical procedure	X	X	X	X
Prescribing	PRSCRBNBNG_PRV DR *	The provider who prescribed a drug, device, or supply				X
Provider under direction	PRVDR_UNDER_ DRCTN *	The provider who directed the care that another provider administered		X		
Provider under supervision	PRVDR_UNDER_ SPRVSN *	The provider who supervised another provider		X		

<sup>23</sup> For more information on the extent of missing data in the NPI variables, see “Billing Provider NPI” and “Servicing Provider NPI” in the Explore by Topic section of *DQ Atlas*. For additional information about providers, see the NPPES NPI Registry.

Beyond these identifiers, the TAF claims files have several other provider-specific variables that describe a provider, such as specialty code and taxonomy code. However, not every provider-specific variable is present for all providers. For example, every provider field has a corresponding variable that captures the provider NPI number (\*\_NPI\_NUM), but not every provider field has a corresponding provider specialty code (\*\_PRVDR\_SPCLTY\_CD) or provider taxonomy code (\*\_TXNMY\_CD). In addition, the quality of provider-specific variables can vary significantly across states, providers, and files.<sup>24</sup>

### D. Identifying services delivered in certain settings

TAF users may need to identify service use records for care delivered in a certain health care setting, such as an inpatient hospital or residential facility. Certain settings can be inferred from the file in which a service use record is located. By design, all services in the IP file are delivered in an inpatient setting, all services in the LT file are delivered in a long-term care facility, and all services in the RX file are delivered by a pharmacy. However, the OT file includes claims for facility services delivered in an outpatient setting and for professional services delivered across all types of settings, including inpatient, outpatient, and long-term care facilities. As a result, to access all records from a particular setting type, TAF users will frequently need to combine records from the OT claims file with records from another claims file. For example, to summarize all hospital utilization or costs, TAF users will need records from both the IP and OT claims files.<sup>25</sup>

### E. Identifying services for the diagnosis and treatment of certain conditions

TAF users may need to identify records and services for specific health conditions if, for example, they want to estimate the number of beneficiaries who received treatment for diabetes or to calculate the total cost of care for sepsis. To identify records for services pertaining to specific conditions, TAF users can rely on three groups of variables: (1) diagnosis codes, (2) procedure codes, and (3) National Drug Code (NDC) codes.

**Diagnosis codes.** Records in the IP file can have up to 12 diagnosis codes, those in the OT file can have up to 2 codes, and those in the LT file can have up to 5 codes (**DGNS\_\*\_CD**). Records in the RX file do not have diagnosis codes, since diagnoses are not recorded on pharmacy claims.<sup>26</sup> Some states may not require providers to submit diagnosis codes on claims for certain types of services captured in the OT file, such as medical supplies, prosthetic equipment, or non-emergency medical transportation (NEMT) services, because the providers billing for these services may not be in the best position to know and record an accurate diagnosis for the beneficiary. In addition, many states do not require providers to submit diagnosis codes on dental claims. However, if a provider includes any diagnosis codes on those claims, CMS instructs states to pass them through to T-MSIS as reported on the claim, even if the

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<sup>24</sup> For more information on the quality of the variables for the billing provider type, see “Billing Provider Type - IP,” “Billing Provider Type - LT,” “Billing Provider Type - OT,” and “Billing Provider Type - RX” in the Explore by Topic section of *DQ Atlas*.

<sup>25</sup> For more information on service setting, see “Place of Service” in the Explore by Topic section of *DQ Atlas*.

<sup>26</sup> For more information about the accuracy of diagnosis codes, see “Diagnosis Code - IP,” “Diagnosis Code - LT,” and “Diagnosis Code - OT” in the Explore by Topic section of *DQ Atlas*.

diagnosis code is inaccurate or invalid. For this reason, TAF users may want to exercise caution in using diagnosis codes on certain types of OT claims even if they appear to be valid ICD-10 diagnosis codes.

TAF users will need to create their own diagnosis code lists that pertain to the specific condition(s) they are investigating. To identify diagnosis codes for specific analyses, TAF users can access ICD-10-CM codes on the CMS website.<sup>27</sup>

**Procedure codes.** Since procedures are sometimes condition-specific, TAF users may in some cases be able to rely on procedure codes to identify the treatment for specific conditions. Records in the IP file have up to six procedure codes (**PRCDR\*\_CD**), which are located on the IP claim header. In the OT file there is one procedure code (**PRCDR\_CD**) on each OT claim line.<sup>28</sup> Records in the LT and RX files do not have procedure codes. TAF users will need to create their own list of procedure codes that pertain to the specific service(s) they are investigating. To identify procedure codes for specific analyses, TAF users can obtain CPT codes from the American Medical Association, and they can access Level II alphanumeric HCPCS codes and ICD-10-PCS codes on the CMS website.<sup>29</sup>

**NDC codes.** The 11-digit NDC code (**NDC\_CD**) that is present on pharmacy claims indicates the drug, device, or medical supply covered by a claim. As with procedure codes, specific drugs, devices, and medical supplies may be condition-specific and could therefore be used to identify beneficiaries who receive treatment for specific conditions. The NDC code is on every claim in the RX file and on a small number of claims in the IP, OT, and LT files. TAF users will need to create their own NDC list that pertains to the specific condition(s) they are investigating. To identify codes, they can access the National Drug Code Directory on the Food and Drug Administration website.<sup>30</sup>

## XII. Assessing expenditures

Many TAF users will be interested in using the data to understand Medicaid and CHIP expenditures. TAF users should always be careful to use the claim type code (**CLM\_TYPE\_CD**) to subset to only those records in which the expenditure information is meaningful in the context of their analysis. In particular, TAF users should exclude managed care encounter records if they are examining payments made by state Medicaid and CHIP agencies, since the payment information on encounter records does not represent payments made by the state on behalf of beneficiaries. (For more information, see Section XII.C, Costs to managed care organizations.)

The major types of expenditures captured in the TAF are described in the remainder of this section.

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<sup>27</sup> The ICD-10 code set is available at <https://www.cms.gov/Medicare/Coding/ICD10/index.html>.

<sup>28</sup> For more information about the usability of procedure codes in TAF, see “Procedure Codes - IP,” “Procedure Codes - OT Professional,” and “Procedure Codes – OT Institutional” in the Explore by Topic section of *DQ Atlas*.

<sup>29</sup> The HCPCS code set is available at <https://www.cms.gov/Medicare/Coding/HCPCSReleaseCodeSets/index.html>. The ICD-10 code set is available at <https://www.cms.gov/Medicare/Coding/ICD10/index.html>.

<sup>30</sup> The National Drug Code Directory is available at <https://www.fda.gov/drugs/drug-approvals-and-databases/national-drug-code-directory>.

## A. FFS expenditures

Payments made by state Medicaid agencies to providers can be identified by using the FFS claim type (**CLM\_TYPE\_CD** = A for Medicaid and Medicaid-expansion CHIP FFS claims, **CLM\_TYPE\_CD** = 1 for separate CHIP FFS claims)<sup>31</sup> and the Medicaid paid amount variables. Payment variables appear on both the header and line-level records in the TAF claims files. The header-level total Medicaid paid amount (**TOT\_MDCD\_PD\_AMT**) represents the total Medicaid payment associated with the entire claim, whereas the line-level Medicaid paid amount (**MDCD\_PD\_AMT**) represents payments made for individual line items enumerated within the claim or payment record. The line-level Medicaid paid amounts should always sum to the header total Medicaid paid amount, although in some cases this does not occur. Payment information on the line and header records is most likely to be consistent on FFS claims that are processed and paid at the line level, which includes many of the services in the OT and RX files. When the payment information is consistent, TAF users can elect to sum payments from either line or header records (but should not use both). In contrast, payment information on FFS claims that are processed and paid at the claim header level—including most IP and LT services in many states—is more likely to be inconsistent.<sup>32</sup> In cases where the sum of the line-level payments does not equal the header-level payment, TAF users may consider using the payment level indicator (**PYMT\_LVL\_IND**) to decide which payment amount to use. States use this indicator to document whether the claim was processed and paid at the header or the line level. When header- and line-level payment amounts are inconsistent, TAF users should conduct additional sensitivity analyses to understand how the selection of line or header payment amounts impacts the results of the analysis.

TAF users who conduct analyses based on FFS data should know that FFS claims with high rates of missing, zero, or negative payment data may preclude them from being able to accurately analyze health care costs. In addition, file submissions with a high proportion of line- and header-level FFS payments that are inconsistent may indicate a data quality issue, and users should exercise caution when relying on payment data from these claims.<sup>33</sup>

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<sup>31</sup> Claim type codes with values of “U” represent FFS claims for “other” types of records that the state did not classify as either Medicaid or CHIP payment records. These records may or may not represent services that qualify for federal matching funds under Title XIX or Title XXI. As states appear to use these records for different reasons, TAF users will need to decide on a state-by-state basis whether to include the records in their analyses.

<sup>32</sup> Long-term care facilities’ payment structures often do not easily translate to claim lines. For example, nursing facilities’ payment policies usually involve per diem rates, as well as adjustments that reflect residents’ medical acuity, the facility’s peer group, and the burden of certain conditions that are expensive to treat. As a result, one common pattern in TAF is positive payments on LT claim headers and zero or missing payments on LT claim lines, which suggests that some states do not successfully disaggregate payments to long-term care facilities across the lines of the claim. Similarly, many state Medicaid agencies have adopted fixed payment policies based on diagnosis-related groups for inpatient services; these are standardized payments designed to cover all services provided during an inpatient stay. This payment arrangement is difficult to disaggregate to the line level, which may be why some states report positive payment on IP claim headers but zero or missing payments on IP claim lines.

<sup>33</sup> For more information about the quality of payment data in header- and line-level records, see “Missing Payment Data – FFS Claims,” “Payment Data Consistency - IP,” and “Payment Data Consistency - OT,” “Payment Data Consistency - LT,” and “Payment Data Consistency - RX” in the Explore by Topic section of *DQ Atlas*.

When analyzing FFS costs, TAF users may want to assess the volume of claims records for the relevant state or states as a measure of FFS claim completeness in TAF. States with implausibly high or low volume of claims may have data quality issues that preclude accurate analysis of health care costs.<sup>34</sup> Some states are known to have FFS expenditures in TAF that do not align well with external benchmarks of state Medicaid program spending, and users should exercise caution when using FFS payment data in those states.<sup>35</sup> Because the data elements available to classify FFS claims in TAF do not align perfectly with the service categories used in external benchmarks such as the CMS-64, a state may have high alignment in total Medicaid expenditures or total FFS expenditures, but low alignment in specific service categories (for example, inpatient expenditures or long-term care expenditures). This pattern suggests that the TAF expenditure data are complete but other TAF data elements do not support accurate partitioning into the same service categories as used by the benchmark data.

### B. Monthly beneficiary payments

Monthly beneficiary payments made by state Medicaid agencies can be identified by using the capitated payment claim type (**CLM\_TYPE\_CD** = 2 for Medicaid and Medicaid-expansion CHIP records, **CLM\_TYPE\_CD** = B for separate CHIP records).<sup>36</sup> These records represent a variety of monthly payments. When a state contracts directly with a managed care plan, the covered services may either be comprehensive benefits contracted from a Medicaid managed care organization or narrower sets of inpatient or outpatient services contracted from a prepaid health plan.<sup>37</sup> States also make other monthly payments on behalf of Medicaid beneficiaries, including the following: a flat fee paid to a primary care provider for primary care case management plan services; Medicare Part A and Part B premiums for beneficiaries who are dually eligible for Medicare; and in some cases, premium assistance for enrolling Medicaid beneficiaries into private coverage.<sup>38</sup>

Most states accurately report monthly payments made to managed care plans, especially comprehensive managed care plans. However, capitation payments in the TAF were deemed unusable in some states

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<sup>34</sup> For more information on states that may have this issue, see “Claims Volume - IP,” “Claims Volume - LT,” “Claims Volume - OT,” and “Claims Volume - RX” in the Explore by Topic section of *DQ Atlas*.

<sup>35</sup> For more information, see “Total FFS Expenditures,” “FFS Inpatient Expenditures,” “FFS Long-Term Care Expenditures,” “FFS Other Medical Expenditures,” and “FFS Prescription Drug Expenditures” in the Explore by Topic section of *DQ Atlas*.

<sup>36</sup> Claim type codes with values of “V” represent capitated payment records for “other” types of records that the state did not classify as either Medicaid or CHIP payment records. These records may or may not represent services that qualify for federal matching funds under Title XIX or Title XXI. As states appear to use these records for different reasons, TAF users will need to decide on a state-by-state basis whether to include the records in their analyses.

<sup>37</sup> Prepaid health plans often cover a specific type of service, such as behavioral health care or dental care.

<sup>38</sup> Some Medicaid beneficiaries may qualify for employer-based coverage, and if this coverage is less costly than enrolling the beneficiary in traditional Medicaid, states have the option of paying the premium on behalf of the eligible beneficiary. Some states have used other policy options, such as 1115 waiver demonstrations or the Basic Health Program, to enroll eligible beneficiaries into private plans available through the state or federal Health Insurance Exchange. Note: the services provided to beneficiaries with private coverage are processed through a private health insurer, and the claims may or may not be submitted to T-MSIS and therefore may not be in TAF.

because they did not align well with a benchmark, and in general, most states do not appear to be reliably capturing payments for Medicare premiums made on behalf of dually eligible beneficiaries.<sup>39</sup>

### C. Costs to managed care organizations

Under Medicaid managed care arrangements, providers bill managed care plans, which process and pay the claims. In turn, these plans submit to states the cost and service information as encounter records to be included in T-MSIS submissions to CMS. These managed care encounter records can be identified by using the managed care encounter claim type (**CLM\_TYPE\_CD** = 3 for Medicaid and Medicaid-expansion CHIP records, **CLM\_TYPE\_CD** = C for separate CHIP records).<sup>40</sup> The Medicaid payment information on encounter records does not represent the same type of payment information that is on FFS claims. Instead, the Medicaid payment amount on encounter records represent payments made by managed care entities to institutions and providers; it does not represent a Medicaid or CHIP payment by the state (as it does on FFS claims). States report their payments for managed care services in capitation records, which represent the per-beneficiary-per-month premium payment from state Medicaid agencies to managed care entities.

As of 2019, the Medicaid and CHIP Managed Care Final Rule requires states to report to T-MSIS the amount managed care entities pay to institutions and providers for services. Historically, however, these data were suppressed by many managed care organizations because they considered the information proprietary. The payment information on managed care encounters in TAF is therefore often less complete than it is on FFS claims, and the payment data is masked on managed care encounter records in the TAF RIF.

As with FFS claims, high rates of missing, zero, or negative payment data on encounter records may preclude TAF users from accurately analyzing health care costs. Provider payment information on managed care encounters is missing or unusable in several states. However, the missing information may be specific to individual managed care plans. If users are interested only in specific managed care plans in a state, they can limit claims to the managed care plans of interest by using **MC\_PLAN\_ID** and then reassess the rate of missing provider payment information at the plan level. If users have the flexibility to exclude certain plans, they could also reassess the missing payment information for each managed care plan to evaluate which plans have data that are sufficiently complete and otherwise accurate to include in their study.

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<sup>39</sup> For more information about the quality of TAF-based capitated payment data, see “Total Monthly Beneficiary Payments,” “CMC Payments,” “PHP Payments,” “PCCM Fees,” and “Premium Assistance Payments” in the Explore by Topic section of *DQ Atlas*.

<sup>40</sup> Claim type codes with values of “W” represent encounter records for “other” types of records that the state did not classify as either Medicaid or CHIP payment records. These records may or may not represent services that qualify for federal matching funds under Title XIX or Title XXI. As states appear to use these records for different reasons, TAF users will need to decide on a state-by-state basis whether to include the records in their analyses.

When analyzing costs to managed care organizations, TAF users may want to assess the volume of encounter records for the relevant state or states. States with implausibly high or low volume of encounter records may have data quality issues that preclude accurate analysis of health care costs.<sup>41</sup>

### D. Service tracking payments

Service tracking records are available in the TAF but are excluded from the publicly available TAF RIF. Service tracking records include payments for services rendered to groups of beneficiaries; they cannot be attributed to a specific beneficiary, provider, or visit (CMS 2019b). Disproportionate Share Hospital (DSH) payments, Upper Payment Limit (UPL) supplemental payments, cost-settlement payments, drug rebates, and other lump-sum payments are most often captured as service tracking records in TAF.

Although nearly all states report these types of payments in the CMS-64 expenditure reporting used to draw down federal matching funds, less than two-thirds of states reported any service tracking records in 2016, suggesting these types of payments tend to be less complete in TAF than FFS claims and monthly beneficiary payments.

The best way to identify service tracking claims is the claim type code (**CLM\_TYPE\_CD** = 4 for Medicaid and Medicaid-expansion CHIP service tracking claims, **CLM\_TYPE\_CD** = D for separate CHIP service tracking claims).<sup>42</sup> The Medicaid paid amount (**TOT\_MD\_CD\_PD\_AMT**) on the header should be zero, and the service tracking payment amount (**SRVC\_TRKNG\_PYMT\_AMT**) should have a non-zero value, although not all states are moving the Medicaid paid amount to the service tracking payment amount properly. In addition, the Medicaid identification number (**MSIS\_IDENT\_NUM**) on service tracking claims usually begins with "&" to indicate that the payment record cannot be linked to a specific beneficiary identifier, and the service tracking type should be a value other than zero.

### E. Supplemental payments

Supplemental payment records represent additional payments (above the standard fee schedule or other standard payment) for services provided to a specific beneficiary; the payment can be attributed to a specific person but not necessarily to a specific service. The best way to identify supplemental payments is claim type code (**CLM\_TYPE\_CD** = 5 for Medicaid and Medicaid-expansion CHIP supplemental payments, **CLM\_TYPE\_CD** = E for separate CHIP supplemental payments).<sup>43</sup> The payment amount for these records should appear in the Medicaid paid amount (**TOT\_MD\_CD\_PD\_AMT**) on the header record.

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<sup>41</sup> For more information, see "CMC Plan Encounters - IP," "CMC Plan Encounters - LT," "CMC Plan Encounters - OT," and "CMC Plan Encounters - RX" in the Explore by Topic section of *DQ Atlas*.

<sup>42</sup> Claim type codes with values of "X" represent service tracking claims for "other" types of records that the state did not classify as either Medicaid or CHIP payment records. These records may or may not represent services that qualify for federal matching funds under Title XIX or Title XXI. As states appear to use these records for different reasons, TAF users will need to decide on a state-by-state basis whether to include the records in their analyses.

<sup>43</sup> Claim type codes with values of "Y" represent supplemental payments for "other" types of records that the state did not classify as either Medicaid or CHIP payment records. These records may or may not represent services that qualify for federal matching funds under Title XIX or Title XXI. As states appear to use these records for different reasons, TAF users will need to decide on a state-by-state basis whether to include the records in their analyses. For more information on the states that report these "other" records, see "Non-Program (Other) Claims" in the Explore by Topic section of *DQ Atlas*.

All supplemental payment records are available in the TAF; however, the TAF RIF excludes supplemental payment records in which the Medicaid identification number begins with an “&” because they cannot be attributed to a specific beneficiary.

Some states and policy analysts refer to service tracking payments as supplemental payments, but the service tracking claims in T-MSIS/TAF are specifically for lump sum payments and the supplemental payments are for the additional payments provided to a specific beneficiary.

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**Appendix A: Sample Claim Forms**

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**Figure A.1. Sample institutional claim form (UB-04)**

The information in the top and bottom sections of the form (surrounded by the red, dashed line border) is captured on the header-level claim record. The information in the middle section of the form (surrounded by the blue, dotted line border) is captured on the line-level claim records.

The image shows a sample UB-04 institutional claim form. The form is divided into several sections:

- Header Section (Red Dashed Border):** Contains patient information (1-10), provider information (11-13), and billing information (14-17). It includes fields for patient name, address, birth date, sex, admission date, and various codes.
- Line-Level Section (Blue Dotted Border):** A large table with columns for procedure codes (39-41), dates, and amounts. It is used for recording individual services provided.
- Footer Section (Red Dashed Border):** Contains insurance information (42-44), treatment authorization codes (45), and other administrative details (46-48). It includes fields for insurer name, group name, and document control numbers.

Source: CMS. "Pub 100-04 Medicare Claims Processing." Available at [https://www.cms.gov/Medicare/Billing/ElectronicBillingEDITrans/15\\_1450](https://www.cms.gov/Medicare/Billing/ElectronicBillingEDITrans/15_1450). Accessed August 26, 2019.

Figure A.2. Sample professional claim form (CMS-1500)

The information in the top and bottom sections of the form (surrounded by the red, dashed line border) is captured on the header-level claim record. The information in the middle section of the form (surrounded by the blue, dotted line border) is captured on the line-level claim records.

The image shows a sample CMS-1500 Health Insurance Claim Form. The form is divided into several sections:

- Header Level (Red Dashed Border):** This section includes the top of the form, including the title "HEALTH INSURANCE CLAIM FORM", the approval by the National Uniform Claim Committee (NUCC) 02/12, and the PICA (Professional Information) section. It contains fields for patient and insured information such as name, address, birth date, sex, and insurance details.
- Line Level (Blue Dotted Border):** This section is a table with multiple rows for detailing services. The columns include:
  - 24. A. DATE(S) OF SERVICE (MM, DO, YY)
  - 24. B. PLACE OF SERVICE (EMG, CPT/HCPCS)
  - 24. C. D. PROCEDURES, SERVICES, OR SUPPLIES (Explain Unusual Circumstances)
  - 24. E. DIAGNOSIS POINTER
  - 24. F. \$ CHARGES
  - 24. G. Q. DAYS OR UNITS
  - 24. H. I. RENDERING PROVIDER ID, #
- Bottom Section (Red Dashed Border):** This section includes fields for federal tax ID, patient account number, total charge, amount paid, and signatures of the physician or supplier and the service facility.

Source: CMS. "CMS 1500." Available at <https://www.cms.gov/Medicare/CMS-Forms/CMS-Forms/Downloads/CMS1500.pdf>. Accessed August 26, 2019.vz1

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