

Frequently Asked Questions (FAQs) regarding Medicaid Analytic eXtract (MAX) data

How will the change from CMS's collection of Medicaid Statistical Information System (MSIS) data to the Transformed MSIS (T-MSIS) data affect MAX?

The content of MAX data through 2013 will be unaffected by the change in data collection to T-MSIS. MAX 2014 Data Dictionary revisions will reflect the new T-MSIS Eligibility Group data field that was added to the MSIS Data Dictionary, Release 5 (April 2014).

Regarding MAX data availability, MSIS data are no longer available for a number of states and the fiscal quarters needed for complete MAX production. We are continuing to produce MAX data for as many states as possible. However, the limited availability of MSIS data is delaying our ability to produce MAX data for all states. When T-MSIS data become available, it will be possible for us to produce MAX data for all states. Because of limited MSIS availability, we are unable to complete MAX production for some states in our current production cycles, as follows:

- 2011 MAX data (Colorado);
- 2012 MAX data (Colorado, Idaho, Kansas and Rhode Island); and
- 2013 MAX data (Alabama, Alaska, California, Colorado, Delaware, District of Columbia, Florida, Idaho, Illinois, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Minnesota, Montana, Nebraska, Nevada, New Hampshire, New Mexico, North Carolina, North Dakota, Ohio, Oregon, Rhode Island, South Carolina, Texas, Utah, Virginia and Wisconsin)

MAX 2014 data have been produced for Georgia, Iowa, Mississippi, Missouri, New Jersey, Pennsylvania, South Dakota, Tennessee, Vermont, West Virginia, and Wyoming. Production for other states is being scheduled as sufficient MSIS and/or T-MSIS data are available.

FAQ16653 (New 06/03/2016)

How will the change from International Classification of Diseases, 9th Edition (ICD-9) to International Classification of Diseases, 10th Edition (ICD-10) coding affect Medicaid service records in MAX and what is being done to accommodate ICD-10 coding?

As of October 1, 2015, CMS has required states to shift from accepting ICD-9 diagnosis and procedure codes on Medicaid claims to accepting only ICD-10 diagnosis and procedure codes. Although the transition to ICD-10 brings many benefits, such as greater specificity and an improved ability to capture advances in medicine, it also presents a significant hurdle for MAX data users studying illnesses or diagnoses over time. Specifically, for projects planning to use claims with dates of service in MAX 2015 or Alpha-MAX quarters containing records with services dates on or after October 1, 2015, records that previously contained ICD-9 codes will now contain ICD-10 codes.

In anticipation of the need to convert from ICD-9 to ICD-10, existing MAX software has been modified to differentiate ICD-9 from ICD-10 coding. Procedure code and diagnosis code flag data elements in inpatient (IP), long-term care (LT), and other services (OT) MAX files will identify instances where ICD-10 codes are reported while the data elements containing actual code values have been formatted to accept ICD-10 codes. MAX production activities are already being updated as necessary. Examples of where the new code implementation can affect MAX processing include the following:

- The delivery code indicator in IP currently uses ICD-9 diagnosis codes to identify delivery records. For claims with service dates before October 1, 2015, the delivery code is created in MAX processing using selected ICD-9 codes along with predetermined values for other data elements. We are adding new relevant ICD-10 codes to define the delivery records for claims with dates of service on or after October 1, 2015.
- We are reviewing and assessing the impact of ICD-9 to ICD-10 code conversion on claims adjustment and the IP stay record creation process during the transition period to assure that adjustments are made correctly before and after this change in codes.

Additionally, because mapping either ICD-9 to ICD-10 or ICD-10 to ICD-9 is not always straightforward, data users may need to spend time to review ICD-9 and/or ICD-10 codes to assure that they are selecting the appropriate codes for their analyses.

FAQ12885 (New 10/15/2015)

What is the difference between a legacy provider identifier (LPI) and a National Provider Identifier (NPI)? Are NPIs available in MAX data?

LPIs are any of a known set of identifiers used by either states or the federal government to identify service providers prior to the arrival of National Provider Identifiers (NPIs). LPIs can be state-specific provider IDs, Medicare Provider Identification Number (PIN), Medicare Unique Physician Identification Number (UPIN), Online Survey Certification and Reporting (OSCAR) IDs, Medicare National Supplier Clearinghouse (NSC) numbers, other Medicare IDs of unknown type, as well as other commercial numbering systems. NPIs are a unique, 10-digit, sequentially assigned national identification number that are mandated by HIPAA to be used by health care providers, health plans, and health care clearinghouses in all administrative and financial HIPAA transactions. NPIs are routinely assigned only to medical providers. There are many non-medical providers serving Medicaid enrollees (e.g. home care services and transportation) that do not usually receive NPIs. So, all Medicaid providers have some types of LPIs, but not all Medicaid providers have NPIs. CMS began collecting NPIs in MSIS data in Fiscal 2009, although reporting was not complete for medical providers initially. NPIs have been captured in MAX to the extent they are available, beginning with 2009 data.

FAQ6115 (Updated 08/04/2015)

How can I determine which Medicaid enrollees were also enrolled in Medicare (e.g. which Medicaid enrollees were dual enrollees)?

It is widely believed that neither the Medicaid nor the Medicare programs have historically identified all dual enrollees accurately. Medicare typically underreports the number of dual enrollees through its buy-in (TPEARTH) data because states may not buy-in for all dual enrollees. The accuracy of Medicaid reporting on Medicare eligibility status has also been questioned in both the eligibility and claims systems. One of the best approaches to identifying

dual enrollees is a link between Medicaid and Medicare data from the two respective eligibility systems using the enrollee's own SSN, date of birth and sex. Such a link between the Medicaid MAX eligibility data (Person Summary file) and the Medicare Enrollment Data Base (EDB) has been conducted for MAX beginning with calendar 1999.

The MAX/EDB Linking Methodology

The MAX/EDB linking methodology is a methodologically sound technique that was feasible given the time and resources available for this process. The MAX/EDB linking methodology is accomplished in three steps:

- The first step has different criteria for aged versus disabled Medicaid enrollees. For aged Medicaid enrollees, SSN and sex must match exactly. For disabled Medicaid enrollees, either the enrollee's SSN and Date of Birth (DOB) must match exactly, or SSN and Sex must match exactly and two of the three elements in DOB (day, month and year) must match exactly.
- In the second step, there is an attempt to link the Medicaid SSN to a Claim Account Number (CAN) from the Health Insurance Claim (HIC) in the EDB for records that were not linked in the first step. This is done because some enrollees incorrectly report the CAN from an account on which they receive auxiliary benefits (as a spouse, widow, child, etc.) as their own SSN. For example, a spouse will report her husband's SSN as though it were her SSN. A check on sex and DOB assures that a correct link is made.
- In the third step, there is an attempt to link the Medicaid-reported HIC to a HIC in the EDB for records that were not linked in either step #1 or step #2.
- Once it is determined that the beneficiary appears in both the MAX and EDB data sets, it is necessary to determine if the enrollee was eligible for both Medicare and Medicaid at the same time.
- For each MAX Eligibility record, month-by-month Medicaid enrollment is compared to repeating segments of Medicare enrollment. A dual indicator is set whenever an overlap occurs. An annual (calendar year) dual indicator is set if the dual indicator for any month is set. The result is an enhanced MAX enrollment data set that includes information about the results of the EDB link.

- For persons identified as dual enrollees, selected data elements from the EDB are added to the Medicaid enrollment data. Because this is a Medicaid database, all MAX records are retained. However, information on dual enrollment status is not retained if the EDB contains an indication of dual enrollment status but there is no record in the MAX file for the Medicaid enrollee.

This linking methodology applies regardless of whether MSIS or T-MSIS data are input to the MAX production process.

Limitations of the MAX/EDB Linking Methodology

Following the EDB link, the MAX data provides counts of confirmed dual enrollees, by state. There is the potential for bias both in terms of undercounting and over-counting. The potential for undercounting dual enrollees may be caused by one or more of several factors: (1) the dual eligible may have been missing from either the EDB or the MAX file, (2) SSN may have been missing in the MAX file, or (3) there may have been errors or number transpositions in the recorded SSN. The potential undercount was estimated to be less than 1 percent of confirmed dual enrollees in 1999.

The possibility of over-counting duals is likely to be even lower than the possibility of under-counting. Over-counting could result if an enrollee moved from one state to another during the year. This is because the MAX data are retained as state-specific data sets and there has been no attempt to “un-duplicate” persons across states in individual state MAX files. Users of multi-state MAX data could “un-duplicate” these persons using SSN, DOB and sex, as has been done in the MAXEM task.

For Medicaid enrollees in MAX who were not linked to the Medicare EDB in the first two steps described above, the third step, a link between MAX and EDB using the Medicaid-reported HIC, could further limit possible under-counting. It is recommended the only MAX enrollee records used in this process have “Eligible Medicare Crossover Code – Annual (Old Values)” (MAX Person Summary File data element #25) value 3 = indicating that the dual eligibility flag has a value of 1 (meaning that Medicaid has recorded that the person is covered by Medicare) AND

Medicare co-payment of deductible or coinsurance was paid by Medicaid on at least one claim during the year. DOB and sex should be used to confirm that appropriate links are made. The extent to which this process may reduce under-counting is unknown and may depend on the degree to which reporting of HICs (by Medicaid) is accurate on a state-by-state basis.

Other Medicaid/Medicare Linking Methodologies

It is important to note that other types of links between Medicaid and Medicare may produce inconsistent results. Linking strategies that are NOT recommended include:

- Using Medicare beneficiaries in the TPEARTH or other Medicare buy-in data as a “finder” file for linking to MAX. This is not recommended because states may not choose to buy-in for all dual enrollees.
- Using Medicaid enrollees identified as dual enrollees as a “finder” file for linking to the Medicare EDB. This is not recommended because the Medicaid dual enrollee data element may be unreliable. In particular, it may fail to identify some dual enrollees.
- Using Medicare HIC, as reported in MAX, to link to the Medicare EDB. The Medicare HIC, as reported in MAX, may not be reported for all dual enrollees and it may not be accurate when it is reported.

Medicare Claims for MAX/EDB Linked Enrollees

MAX data users can use the Medicare-reported HIC (Person Summary File data element #7) to request claims records from Medicare systems.

USING MAX BEGINNING IN 1999

Person Summary File (Beginning in 1999)

The MAX Person Summary file has five data elements: two identify dual enrollees, which are described below:

(A) “Eligible Medicare Crossover Code – Annual, Old Values” (data element #25 for 1999-2004) has code values as defined in (1) above (1996-1998 SMRF files). This data element does not exist for MAX 2005 and later years.

(B) “Quarterly Eligible Medicare Crossover Code – Old Values” (data element #26 for 1999-2004) has code values as defined in (1) above (1996-1998 SMRF files). Code values indicating a link to the Medicare EDB are omitted. This also matches with the annual definitions used in SMRF for years before 1996. This data element does not exist for MAX 2005 and later years.

(C) “Eligible Medicare Crossover Code – Annual, New Values” (data element #27 for 1999-2004) has code values as defined in (2) above (1996-1998 SMRF files). In addition, code values = 50-59 and 98 indicate that the Medicaid record for this person was linked to an eligibility record for this person in the Medicare EDB. These code values = 50-59 and 98 are considered to be the most reliable way to identify dual eligibles. This is renamed “Medicare Dual Code Annually” (data element #35) for MAX 2005 and later years.

(D) “Quarterly Eligible Medicare Crossover Code – New Values” (data element #28 for 1999-2004) has code values as defined in (2) above (1996-98 SMRF files). Code values indicating a link to the Medicare EDB are omitted. This data element does not exist for MAX 2005 and later years.

(E) “Medicare Dual Code – Monthly” – This data element exists for MAX 2005 and later years (data element #38). It was not populated until 2006.

Claims Files (1999-2004)

Data on dual enrollment is included with other eligibility data that is added to each MAX claims record (data elements #12-14). Data element #12 “Eligible Medicare Crossover Code – Annual Old Values” is taken from the SMRF eligibility data in the Person Summary file and is defined as in (A) above. Data element #13 “Eligible Medicare Crossover Code – Claim-Based” is based solely on the claim in which it occurs (if Medicare coinsurance or deductible payments were made by Medicaid). Data Element #14 “Eligible Medicare Crossover Code – Annual New Values” is taken from MSIS and SMRF eligibility data and is defined as in (C) above.

Claims Files (beginning in 2005)

Data on dual enrollment status is included with other eligibility data that is added to each MAX claims record (data elements #19-20). Data element #19 “Medicare Dual Code – Claim-Based” is based solely on the claim in which it occurs (if Medicare coinsurance or deductible payments were made by Medicaid). Data element #20 “Medicare Dual Code – Annual” is taken from the MAX Person Summary file.

In General (beginning in 1999)

As a result of the Medicare EDB link, several EDB data elements have been added to the MAX files: eligible Medicare Health Insurance Claim (HIC) number, Medicare race/ethnicity, eligible Medicare language code, eligible Medicare death date, eligible Medicare death day switch, eligible Medicare beneficiary months count, Medicare original entitlement reason code, Medicare current entitlement reason code and eligible Medicare beneficiary – monthly.

As discussed above, it should be noted that the quality of coding for “dual-eligibility-flag”, which identifies the various types of dual eligibilities (as noted above) was questionable for many states. The quality of coding for this data element did improve somewhat for MSIS data submitted for Fiscal 2000 through Fiscal 2002. However, data reporting problems remained. A major effort was undertaken to improve systematic coding problems for this data element in Fiscal 2003 submissions.

SERVICE UTILIZATION FOR DUAL ENROLLEES

Please see the question “Can I obtain a complete view of all health services delivered to Medicaid enrollees by using the MAX data?” for a discussion of service utilization issues for dual enrollees.

FAQ9720 (Update 02/21/2018)

What are the types of records that are contained in each of the Medicaid Analytic eXtract (MAX) files? How do the records in these files differ from the records in the Medicaid Statistical Information System (MSIS) and the Transformed-Medicaid Statistical Information System (T-MSIS) files?

The MAX files are a research **extract** from the MSIS and T-MSIS files. MAX files are oriented to the needs of researchers and policy analysts in the following ways:

- MSIS and T-MSIS files are organized by federal fiscal year from October through September. For MSIS, there are four quarterly files for each fiscal year, covering October-December, January-March, April-June and July-September. In contrast, MAX files are organized by calendar year.
- Records in MSIS and T-MSIS files are included based on transaction dates. These dates are the eligibility determination decisions for eligibility data and payment adjudication date for claims. For eligibility, it may include corrections and retroactive eligibility determinations made at dates after the period of eligibility in question. For claims, adjudication date is the date the state reviewed the claim and determined that it should be paid, which may be different from the date that payment was actually made to the provider. Records in MAX are included as they occurred chronologically in the calendar year (e.g. actual monthly eligibility for the 12 months in the calendar year, dates of service for **Medicaid** covered services – fee-for-service, and premium payments for the months they cover – prepaid plans).
- Records in the MSIS and T-MSS services files are interim claims (originals, voids, credits, debits, etc.). In MAX processing, a set of rules is developed for each state (called “business rules”) that determine which MSIS and T-MSIS interim claims should be grouped together and how they should be combined and/or adjusted to create final MAX records. The final records are intended to represent, as closely as possible, specific services provided by **Medicaid** (e.g. hospital stays, visits, prescriptions, laboratory tests, etc.). MSIS, T-MSIS and MAX files all include records for all claims that were adjudicated for payment by the **Medicaid** state agency, even if the adjudication process results in a zero dollar liability for **Medicaid** (because of a third-party payment). Denied claims are included in T-MSIS but not in MSIS and MAX. Denial may occur for several reasons, such as: (1) the person was not enrolled in **Medicaid**, (2) the service was not covered by **Medicaid**, or (3) there was insufficient detail on the claim to adjudicate it for payment.

RECORDS IN THE MAX FILES

MAX files are created by state, calendar year and file type. The records included in MAX files, by file type, are as follows:

Person Summary File

- There is a record in this file for each person who was eligible for **Medicaid** or a Medicaid-expansion **Child Health Insurance Program (M-CHIP)** in the year. **Medicaid** enrollees covered by Section 1115 Demonstrations or other **Medicaid** waiver programs are included.
- Each record shows 12 monthly observations of enrollment in the year and a summary of service utilization. If an enrollee did not use any services during the year, only the section of the record on eligibility characteristics will contain data.
- States also submit records of enrollment for stand-alone (or separate) **CHIP** program enrollees (**S-CHIP**) in MSIS/T-MSIS. Those records are included in MAX for states that choose to submit eligibility data on **S-CHIP** enrollees. Persons enrolled in **S-CHIP** only will have no months of **Medicaid** enrollment for the months they are enrolled in **S-CHIP**.
- For a variety of reasons, there may be no MSIS or T-MSIS enrollment records for some **Medicaid** service recipients. This can occur because eligibility and services (claims) data may be captured in different state data systems. Different reporting and batching cycles may result in mismatches between the two types of data. The number and types of persons for whom these records are missing varies from state to state, but is usually a very small proportion of the total state enrollees. There is a MAX Person Summary File record for each of these persons that includes ONLY the **Medicaid** identification number for the person in the section of the record on eligibility characteristics. Other eligibility characteristics are missing for these persons. In MAX, these eligibility characteristics are unknown (e.g. sex, date of birth and basis of eligibility). Enrollees with no MSIS or T-MSIS enrollment records are identified by the data element “Missing Eligibility Data Switch”.

General Information Concerning Services Files

These files include three major types of records: (1) fee-for service records, including utilization and payment information (2) premium payments for persons enrolled in prepaid plans (in the MAX Other Services file only), and (3) “encounter” records for persons enrolled in prepaid managed care plans, including utilization but not payment information (because premium was paid in advance for care provided by the plan). Encounter record reporting of services provided to persons enrolled in prepaid managed care plans is not necessarily complete for all states in MSIS and T-MSIS, but it is improving each year. The degree of completeness and consistency in reporting of encounter records is not fully documented at this time. The introductory page(s) of each MAX data dictionary, for each of the four file types, provide additional details about the specifications of the file. The four types of services files are discussed below in more detail.

Inpatient Hospital File

This file contains records of inpatient hospital stays (MSIS and MAX Type of Service = 01, 24, 25 and 39), regardless of length of stay. Stays of greater than one day are included in a MAX file based on the last day of service for the stay. For example, the record for a stay that began on December 27, 2007 and ended on January 4, 2008 is reported in the 2008 MAX file. Not all stay records may show a patient status code indicating that the patient was discharged. Data users should exercise caution in examining stays for mothers and their newborns because there are alternative ways in which these types of stays appear in the MAX files:

- mother and newborn with different **Medicaid** identification numbers on different records,
- mother and newborn with the same **Medicaid** identification number on different records, and
- mother and newborn both included on a combined record where it is not possible to separate the services delivered to the mother from those delivered to the newborn, as reported on the MSIS/T-MSIS record.

Long-Term Care File

The records in this file are typically weekly, biweekly or monthly records of long-term care services (MSIS and MAX Types of Service = 02, 04, 05 or 07). Because long-term care stays may be quite long, often covering multiple years, it is not practical to create a long-term care stay

record file. Also, original admission date may be unreliable. For some states, there may be multiple records for the same person, dates of service and facility. In the case of these multiple records, some records may be for per-diem amounts and others for ancillary services, such as physical therapy. However, it is not possible to identify exactly which services were provided under each record.

This file contains records for services provided by long-term care facility (e.g. nursing facilities and intermediate care facilities for the mentally retarded). Other services provided to residents of these facilities, which were not provided by the long-term care facility, can be found in other files. For example, physician and podiatrist services are found in the other services (OT) file. Most states do not include prescribed drugs in their nursing facility payment rates. For this reason, prescribed drugs for nursing facility residents are usually found in the RX file. However, for 1999, three states (Delaware, New York and South Dakota) did include prescribed drugs in their nursing facility payment rates. To the best of our knowledge, this information has not been updated since 1999. So, for these three states, it is likely that neither the RX nor the LT file will contain a complete record of prescribed drugs for nursing facility residents. In contrast to prescribed drugs, most states included non-legend (over-the-counter) drugs in their nursing facility payment rates. For states that included non-legend drugs in their nursing facility payment rates, neither the RX nor the LT file will contain a complete record of non-legend drugs provided to nursing facility residents.

Prescription Drug File

The records in the RX file represent drugs and other services provided by a free-standing pharmacy and include all service records that contain a National Drug Code (NDC). Drug records in the RX file have MSIS and MAX Types of Service (TOS) = 16. Other records in the RX file have MSIS TOS = 19 (other services) and MAX TOS = 51 (Durable Medical Equipment – DME – and Supplies). Drug records include original filled prescriptions, refills, over-the-counter drugs, and other NDC-coded items. For example, DME and supplies are included if they contain NDCs. In contrast, DME and supplies that are billed by other types of providers and contain service codes (e. g. HCPCS or other state-specific procedure codes) are reported in the MAX Other Services File. Likewise, injectable drugs that patients may receive from non-

pharmacy providers, such as physicians and clinics, that contain procedure (service) codes (known as j-codes) are also reported in the MAX Other Services File. It should be noted that certain drugs are not reported in the Prescription Drug File:

- Injectable drugs (J-code drugs) that must be administered by medical personnel are included in the Other Services File.
- Drugs provided during an inpatient hospital stay: Detail on these drugs is not available, but payments for these drugs are included in the inpatient hospital payment amount.
- As noted above for a small number of States, drugs provided during a nursing facility stay are included in the per-diem reimbursement to the nursing facility and detail on the drugs is not available. This last recorded survey of state reimbursement for nursing facilities, conducted for 1999, showed that this policy was in effect only in Delaware, New York and South Dakota. For all other States, drugs provided during a nursing facility stay, at that time, were included in the Prescription Drug File.

Other Services File

The MAX Other Services File contains all **Medicaid** records not reported in any of the other MAX services files. This file contains three types of records:

- Fee-for-service records for any types of services not reported in the other three MAX files (e.g. physician, outpatient hospital, clinic, laboratory, radiology, home health, transportation, etc.),
- Managed care “encounter” records for persons enrolled in prepaid managed care plans, which can be identified using Type of Claim = 3, and
- Payment records for premiums paid to prepaid managed care plans, which can be identified using MSIS and MAX Types of Service = 20, 21 and 22.

DME and supplies that are billed by non-pharmacy providers and contain service codes (i.e. HCPCS or other state-specific procedure codes rather than NDCs) are reported in the MAX Other Services File. Likewise, injectable drugs that patients receive from non-pharmacy providers, such as physicians and clinics, which contain procedure (service) codes (known as j-codes) are also reported in the MAX Other Services File. In contrast, DME and supplies are included in the RX file if they contain NDCs.

MAJOR DIFFERENCES BETWEEN MSIS/T-MSIS AND MAX

The major differences between MSIS/T-MSIS and MAX are identified below:

- T_MSIS files include many more data elements than MSIS and MAX. However, MSIS and MAX data dictionaries will not be expanded, in general, to capture new T-MSIS data elements. There is one notable exception – T-MSIS Eligibility Group is being captured in MAX beginning with 2014. States may end reporting of Maintenance Assistance Status (MAS) and Basis of Eligibility (BOE) groups in favor of reporting T-MSIS Eligibility Group. There is no direct one-to-one mapping of codes from one system to another, which may complicate analytic design for some researchers doing longitudinal analyses. The reason that MAX files will not capture new T-MSIS data elements is that a new system of T-MSIS Analytic Files (TAFs) is in development that will ultimately replace MAX.
- MAX files are prepared for each state and calendar year. MSIS files are prepared for each state, quarter and fiscal year.
- MAX enrollment data are included for the twelve months of the calendar year, from January to December. In contrast, MSIS enrollment data are retained in quarterly files and represent enrollment “transactions” that occurred in the fiscal quarter (current enrollment, retroactive enrollment and corrections for previous quarters).
- MAX services (claims) files combine interim MSIS claims to create final action service “events”, such as hospital stays, visits, and services. In contrast, MSIS claims data are retained as they were adjudicated by states in the fiscal quarter (original, void, credit and debit claims).
- Because MAX is an annual calendar year file and MSIS files are submitted quarterly for a fiscal year, the number of MAX enrollee records for the calendar year should typically be slightly greater than an unduplicated count of the enrollee records in MSIS for the four quarters of the FISCAL year (October-September), due to steady growth in the **Medicaid** enrolled population.
- There should be small variations between the number of MAX enrollee records for the calendar year and an unduplicated count of the enrollee records in MSIS/T-MSIS for the four quarters of the CALENDAR year, because of the different orientation of the two

files. MSIS eligibility transaction records to correct previously submitted records or to award enrollment retroactively are reported in MAX for the months in which the person was actually enrolled.

- The number of records in each MAX service file should be less than the number of MSIS/T-MSIS claims records that correspond to the same services. This is because interim MSIS claims have been combined to produce MAX final action “event” records. The difference will vary by state and Type of Service. Creation of the final action “event” records requires a detailed knowledge of state claims payment processes. These processes vary across states and may vary within a state over time and for different types of service.
- MAX Person Summary File records have been linked to the Medicare Enrollment Data Base (EDB) to better identify **Medicaid** enrollees who are also enrolled in Medicare (the so called dual or crossover enrollees). Selected EDB data elements have been added to MAX enrollment records. Dual enrollees can be identified using “eligible Medicare crossover code – new values” (data element #27 from 1999-2004) and “Medicare Dual Code – Monthly” (data element #38 for 2005 and later years).
- MAX Prescription Drug File records have been linked to data from two commercial vendors (First Data Bank and Medi-Span) to add therapeutic classification codes from several code systems to each record. According to license agreements with these vendors, access to these MAX data elements is restricted to users who are CMS employees or are working under a CMS contract.
- The MAX Person Summary File includes annual statistics on **Medicaid** utilization and payments, by MAX Type of Service, summarized from claims files, for each enrollee.
- MAX eligibility data from the MAX Person Summary File has been added to each MAX service record to facilitate use of these data by end users.
- MSIS/T-MSIS service and eligibility coding is verified and improved in MAX. For eligibility, when errors or inconsistencies in state coding are identified in MSIS files, state-specific eligibility codes are remapped to appropriate eligibility groups (that can be corrected) in MAX. For services, when errors or inconsistencies in state coding are identified, HCPCS and state-specific service codes are remapped to appropriate Types of Service in MAX.

- The list of Types of Service (TOS) in MAX has been expanded beyond those that are available in MSIS. The following are the additional MAX Type of Service codes:
51 = Durable Medical Equipment (DME and supplies) – includes emergency response systems, home modifications and prosthetic devices);
52 = Residential care;
53 = Psychiatric services (excluding adult day care); and
54 = Adult day care

These code values are populated by members of the MAX project team who review national and state-specific procedure (service) code lists to develop the maps from those procedures to MAX TOS codes 51-54. Most of the services that receive MAX TOS codes 51-54 are coded as MSIS TOS = 19 (Other Services). Because of this, there are fewer MAX records with MAX TOS = 19 than with MSIS TOS = 19.

Members of the MAX project team validate MAX TOS coding. To do this, they review the states' MSIS TOS code maps for reasonableness, but in general do not alter the states' coding because the MSIS TOS is intended to mirror the coverage documented by state plans. However, the team removes services from existing MSIS TOS codes to populate MAX TOS 51-54, as described above.

- Claims that represent an aggregate group of services provided to more than one **Medicaid** enrollee are included in MSIS/T-MSIS because they do represent actual **Medicaid** payments. However, they are excluded from MAX because they cannot be associated with individual enrollees. These claims are identified as follows:
(1) Service tracking claims (Type of Claim = 4) or
(2) Claims with an ampersand (“&”) as the first character in the **Medicaid** identification number.
Exclusion of these “& ID” claims from MAX also means that there are no “& ID” enrollment records in the MAX Person Summary File.
- Supplemental payment claims (Type of Claim = 5) are payments made to some providers that are higher than usual payment amounts. For example, a clinic operating as a Federally Qualified Health Center (FQHC) may receive the same basic payment as

another clinic that has not been designated as a FQHC. Because the FQHC is eligible to receive a higher payment, the difference is paid to the FQHC through the use of a supplemental payment claim. Because there are relatively few of these claims in the Inpatient Hospital and Long-Term Care files, a decision was made to exclude them from the MAX IP and LT files for 1999. After reviewing the decision, it was determined that there is probably no good reason to exclude them. Therefore, these records are being included in MAX for 2000 and later years. Because of the ways that states make supplemental payments to some providers, there may be more than one MAX record for some services where supplemental payments have been made.

- For 1999, laboratory and x-ray records were reported in MAX based on their MSIS Type of Service (TOS). For example, a laboratory service that was provided through a physician practice and reported in MSIS TOS Code = 08 (physician service) was reported the same way MAX TOS = 08 (physician service). Beginning with 2000, improvements have been made to the accuracy of reporting of these laboratory services in MAX. Based on a review of procedure (service) codes, laboratory and x-ray record that are reported as MSIS TOS = 08 are remapped to MAX TOS = 15 (lab and x-ray). This may result in a large change in the percent of total claims for lab and x-ray between 1999 and 2000 for some states.

FAQ9718 (Updated 02/21/2018)

I am interested in obtaining a complete view of all health services delivered to all Medicaid enrollees. Is it possible to do this by using the Medicaid Analytic eXtract (MAX) data?

Stated simply, no. A complete view of all health services delivered to Medicaid enrollees cannot be obtained by using the MAX data. The MAX data are derived from state data submitted to CMS under the MSIS and now T-MSIS reporting requirements. States prepare the MSIS/T-MSIS data using data from their individual state Medicaid Management Information Systems (MMIS) and other state data systems, some of which may be housed in other state agencies. MMIS systems perform a number of functions, including: beneficiary enrollment, provider

enrollment, claims payment (fee-for-service), premium payment (prepaid plans) and other functions.

General Exclusions

Not all services received by Medicaid enrollees are captured in these systems. Examples of excluded services are:

- Services beyond the amount, duration and scope of coverage specified in the individual state Medicaid plan.
- Services received during periods when the person is not eligible for Medicaid.
- Services paid by other payers (including Medicare, private insurance, self-pay and block-granted programs). MSIS/T-MSIS and MAX data may include services normally covered by other insurers when service use exceeds the amount, duration and scope of coverage by the other insurer.
- Services provided at no charge, such as free screenings or immunizations.

In addition, there are specific Medicaid subpopulations for which service information may be missing or incomplete. This is particularly important for two groups, individuals enrolled in both Medicaid and Medicare (dual enrollees) and persons enrolled in Medicaid prepaid plans (either comprehensive or partial plans), as discussed below.

Dual (Medicaid and Medicare) enrollees

For services that are covered only by Medicaid, the service record should reflect all services delivered and Medicaid payment amounts up to Medicaid payment limits. For services that are covered by both Medicaid and Medicare, Medicaid records may include all services delivered, but Medicaid payment amounts in these records may reflect only co-payment and deductible amounts paid by Medicaid after Medicare has made payments up to its coverage limits. For this reason, average payment amounts per service or per day, as calculated from these records, may substantially understate total payment amounts per service or per day. It is possible that diagnosis and other data elements may be missing on Medicaid dual enrollee service records because of the way in which billing data is transferred between Medicare (carriers and/or intermediaries) and Medicaid. While a systematic analysis of missing code values for all data

elements on crossover claims is not available, the MAX validation reports and data anomalies reports may provide some insight into the completeness of reporting for many of the MAX data elements. These reports contain specific findings for dual enrollees and are available at the MAX web site.

Incomplete reporting probably varies to some extent across Medicare carriers and intermediaries. This is NOT typically a situation where state Medicaid agencies have the missing data elements and fail to provide them in MSIS/T-MSIS reporting. Rather, these data elements may be missing when the bills are transferred from the Medicare carriers and/or intermediaries to the Medicaid state agency. Because states may not have these data elements, they may be unable to provide them to CMS in MSIS/T-MSIS reporting.

In cases where actual Medicare payment exceeds Medicaid payment schedules, Medicaid is not required to pay co-payment amounts. Also, prepaid plans may absorb co-payment amounts for their dual enrollees. Therefore, these Medicaid service records may be missing in MSIS/T-MSIS reporting. This problem may vary across states and over time.

Persons Enrolled in Medicaid Prepaid Managed Care Plans

First, it is necessary to define the two major types of Medicaid prepaid managed care. Data may be missing or incomplete in the MSIS/T-MSIS and MAX files for these types of prepaid plan care:

- Comprehensive coverage as offered by plans such as Health Maintenance Organizations (HMOs) and Health Insuring Organizations (HIOs). These plans typically provide a full array of covered services under the plan. These plans are paid a “premium” before services are delivered. During periods of enrollment in these plans, there should be no fee-for-service claims data for plan enrollees, unless certain classes of services are carved out of plan coverage (e.g. behavioral health services).
- Less than comprehensive coverage as offered by Prepaid Health Plans (PHPs). These plans may offer prepaid coverage for selected groups of services, such as dental care, behavioral health services, prenatal/delivery services, and others. These plans are also

paid a “premium” before services are delivered. An individual may be enrolled in more than one of these plans at any point in time. Services that are not covered by any of these plans should appear in the fee-for-service claim data. Even among similar types of plans, there may be substantial variation in the breadth and depth of service coverage across plans.

In addition to the two major types of plans described above, Primary Care Case Management (PCCM) is a form of managed care that usually involves a small per member per month payment (e.g. \$3) to a primary care provider to manage patient care, under the authority of Section 1915(b). This PCCM payment usually covers only case management services and none of the other services that the patient receives. In most PCCM arrangements, all other services are billed through the fee-for-service system. Some states enroll beneficiaries in PCCM, but only pay the PCCM provider when case management services are delivered to the beneficiary. Other states may pay the PCCM provider whether or not the provider actually performed case management services in the month. In either case, payment for PCCM services may be included with other fee-for-services claims and may not be easily identified as PCCM services. In summary, for PCCM enrollees, the MAX data should include records in the Other Services file for the PCCM case management service (either as a premium payment or fee-for-service record). Services other than case management will usually appear as fee-for-service records in any of the MAX files, according to the usual types of service that appear in each of the MAX services files.

The MSIS/T-MSIS and MAX data may include two types of records for person enrolled in prepaid plans:

- The first type of record is for the premium payment amounts paid by Medicaid to the plan for each enrollee, usually on a monthly basis. This record does not have any direct relationship to services rendered. These types of records may be found in MAX Other Services (OT) files. They are identified by using code values = 20-22. Type of Service = 20 identifies payments made to comprehensive plans (HMOs and HIOs). Type of Service = 21 identifies payments made to less than comprehensive plans (PHPs). Type of Service = 22 identifies payments made to PCCM plans.

- The second type of record is an “encounter” record for services delivered by the prepaid plan. As with administrative data from other payers, “encounter” data reporting from most plans currently lacks the completeness and consistency to support a wide variety of research activities at this time. This can be a greater or lesser problem for data users for several reasons. First, states vary greatly in the overall number and percent of their Medicaid enrollees who are covered by prepaid plans. Second, enrollment in prepaid plans also varies greatly by Medicaid eligibility group. Typically, the percent of adult and child enrollees in prepaid plans is much higher than the percent of aged and disabled enrollees in prepaid plans. This is an important issue that should be carefully considered in the design of many Medicaid research studies.

Users may want to refer to summary statistics that are contained in the Medicaid Managed Care Enrollment Report, published as of June 30 of each year. This report can be accessed on the Web at the following address: <http://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidDataSourcesGenInfo/MdManCrEnrllRep.html>. When using these statistics, users should be careful to subtract counts of persons in PCCM plans from counts of managed care enrollees, reported in this volume, to estimate numbers of enrollees in prepaid plans. As noted above, this is because most PCCM enrollees receive care through the fee-for-service system, but PCCM enrollees are included in statistics published in this report.

Specific Services

Also, there are instances where data users will not have detail on all services provided.

Illustrative examples include:

- Inpatient hospital services include an array of services related to the inpatient stay, such as prescribed drugs, oxygen, blood, etc. Beginning in 1999, MSIS and MAX include data for UB-92 revenue codes in each inpatient hospital record. It may be possible to use these codes to determine if certain types of services were delivered to the patient in a given inpatient hospital stay. However, it may not be possible for data users to identify the level of detail they may desire. For example, it is not possible to identify specific prescribed drugs, by NDC, that were provided to the patient during their inpatient stay. The general rule for inpatient stays is that services provided (and billed for) by the inpatient hospital

will be included in billed amounts on the inpatient hospital claims. Other services, not included on the inpatient hospital claims, such as physician and anesthesiologist services, will be on separate records in the MAX Other Services (OT) file.

- Long-term (LT) care claims may include an array of ancillary services for the long-term care resident. This is known as service “bundling”. Typically, Nursing Facility (NF) claims include over-the-counter drugs, in most states. However, most states do not “bundle” prescribed drugs into their NF claims. NFs may also “bundle” other services, such as physical therapy, into a NF claim if the service was provided by a member of the NF staff.
- Service detail for services provided to pregnant women may be missing from the services files if the women received prenatal care services from a provider when Medicaid made a single payment to the provider for a prenatal care service “package”.

Please see FAQ9718 for information on the change from Maintenance Assistance Status (MAS) and Basis of Eligibility (BOE) designations of eligibility in MSIS to Eligibility Group in T-MSIS. This change could affect the way in which data users are able to identify services delivered to specific populations of interest.

FAQ2461 (Updated 02/21/2018)

To what extent is coding verified and improved for the MAS and BOE classifications contained within the Medicaid Analytic eXtract (MAX) data? How is this done?

States use eligibility information from their MMIS systems to assign MSIS uniform eligibility codes to each Medicaid enrollee. Two MSIS data elements are used for the uniform eligibility codes – the Maintenance Assistance Status (MAS) and the Basis of Eligibility (BOE). States are required to submit a comprehensive eligibility crosswalk or map from their state-specific MMIS codes to MSIS codes, showing what state specific eligibility group information or factors they use from their MMIS systems to decide which MAS and BOE codes enrollees are assigned. Since state MMIS systems are not uniform, states vary in the eligibility information or factors used to assign MAS/BOE code values. Examples include:

- State eligibility group or aid category

- Cash assistance status
- Dual eligibility status
- Waiver status
- Person code
- Scope of benefits code

Attachment 3 to the MSIS Tape Specifications and Data Dictionary provides guidance to states on the eligibility criteria appropriate for each MAS and BOE code.

Beginning with the FFY 1999 MSIS, CMS reviews the codes and definitions each state intended to use, as well as each state's eligibility crosswalk, to insure that the MAS/BOE codes are assigned appropriately and consistently. Each state's MSIS eligibility crosswalk has to be approved before MSIS files could be submitted. In addition, each quarter of MSIS eligibility data is reviewed by CMS to insure that states follow their eligibility crosswalks. Departures from the crosswalk may cause files to be rejected during MSIS intake review. States are required to update their eligibility crosswalks, as appropriate, and submit any new code values and definitions for review. States are also requested to report whatever state specific eligibility information they use to assign MAS/BOE codes in the 6 byte "Eligibility-Group" data element in MSIS.

Generally, the MAS/BOE values in MSIS correspond to the uniform eligibility groups in MAX. However, because errors sometimes occur in the MSIS MAS/BOE reporting, some recoding may be done as part of the conversion of MSIS data into MAX research files.

Please see FAQ9718 for more information about MAS and BOE in the new MAX files produced using T-MSIS.

FAQ2453 (Update 08/04/2015)

Is it possible to identify Early and Periodic Screening Diagnosis and Treatment (EPSDT) or other preventive services delivered to children in the Medicaid Analytic eXtract (MAX) data?

A feature of Medicaid that is different than many other health insurers is a major emphasis on preventive services for children. In Medicaid, this emphasis is reflected in a “package” of services for children known as Early and Periodic Screening Diagnosis and Treatment (EPSDT) services that must be provided by all state Medicaid programs. This group of services, for individuals under 21 years of age, consists of: a comprehensive health and development assessment; an unclothed physical exam; appropriate immunizations; laboratory tests (including blood lead levels); health education; vision services that, at a minimum, include diagnosis and treatment of defects in vision, including eyeglasses; dental services that, at a minimum, include relief of pain and infections, restoration of teeth, and maintenance of dental health; and hearing services that, at a minimum, include diagnosis and treatment of hearing defects, including hearing aids. Additional services must be provided for individuals under 21 years of age whether or not the services are covered in the state’s Medicaid plan. These services encompass other health care, diagnostic services, treatment, and other measures that are coverable under Medicaid and medically necessary to correct or ameliorate defects and physical and mental illnesses and conditions discovered by the screening services. States must establish distinct periodicity schedules for screening, vision, dental and hearing services. In addition, interperiodic screens must be made available based on medical necessity.

While all of the services described above must be provided, users are warned that there is substantial variation across states in terms of exactly which services are identified as EPSDT services in MSIS reporting. At one extreme, some states report only screening services as EPSDT services. Referrals and treatments are included in MSIS and MAX, but they may not be identified as EPSDT services. At the other extreme, some states identify a wide array of services (including screening, referrals and treatments) as EPSDT services.

Beginning in 1999, MSIS required states to identify EPSDT services by using code value = 1 in the data element “Program-Type”. In MAX, this is MSIS Type of Program code (data element #16 for 1999-2004 and data element #22 for 2005 and later years).

In general, data users should not fully rely on either “Type of Service” or “Program Type” data elements to identify EPSDT or other preventive services delivered to children. Instead, users should identify the list of preventive services they want to study by using procedure (service) codes.

FAQ2437 (Updated 08/04/2015)

Is information on maternal deliveries available in the Medicaid Analytic eXtract (MAX) data?

Utilization and expenditure data for maternal deliveries and newborn care are included in MSIS and MAX data. However, it may be quite difficult to identify correctly all deliveries (whether or not they result in live births) because of the many ways states permit hospitals and other providers to bill for maternal delivery and newborn care. Initial review of the literature indicated that the best way to identify deliveries is through diagnosis coding in inpatient hospital records. Neither procedure coding in inpatient hospital records nor procedure (service) coding in physician records was determined to consistently identify maternal deliveries. In MAX, coding has been added to assist data users:

MAX Inpatient Hospital File

The MAX Inpatient Hospital file includes the data element “recipient delivery code” (data element #40 for 1999-2004) and “delivery code” (data element #48 for 2005 and later years). This data element is coded for each inpatient hospital record in the file. It has a code value, as follows:

- Code value = 0 for all inpatient records that had no indication of a delivery. Hospital records that only have a newborn delivery code and are NOT billed under the mother’s

Medicaid ID are not counted as a 'delivery hospital stay'. Males should have this code value.

- Code value = 1 for inpatient records with an indication of a maternal delivery - Both live and still births identified on the basis of any of the following MAX Inpatient Hospital diagnosis codes - 650.0, 640.0 -676.0 (with a 5th digit of '1' or '2'), or V27.1-V27.9 - appearing in claims for the stay. This value is assigned if any of the claims for this record have an indication of a maternal delivery. This value is set if there is either a combined mother/newborn delivery claim or a maternal only delivery claim.
- Code value = 2 for inpatient records with an indication of a newborn delivery - identified on the basis of any of the following MAX Inpatient Hospital diagnosis codes – V30.-V39. (plus a 4th position value of '0' and any value in the 5th position). This value is assigned only for separate newborn delivery records that are known to contain the mother's Medicaid identifier. Therefore, these records are a subset of all delivery records.

Coding is defined this way because the focus is on identifying women who delivered at least one baby during the year in the MAX Person Summary File. Often, separate newborn claims without the mother's ID cannot be linked to the mother's record. It is also possible that Medicaid only paid for the infant's delivery.

If there are claims identified as a maternal delivery and as a newborn delivery in the set of claims used to produce the MAX record, there are two separate records created in the MAX inpatient hospital file – one for the mother and one for the newborn.

Inpatient hospital diagnosis and procedure codes can be used to determine other information concerning the delivery (e.g. live birth versus stillborn, delivery by caesarian section, normal birth weight versus pre-maturity).

In contrast, there may be some hospital delivery records for the mother only and some that include the newborn as well. For records that include services for the mother and the newborn, it may not be possible, in all cases, to separately identify services delivered to the mother from services delivered to the newborn. This problem may vary by state and hospital.

Users are warned that the total number of delivery records may produce imprecise count of actual deliveries due to both over- and under-reporting. Over-reporting may occur because there may be more than one stay record for the same maternal delivery (e.g. stays for false labor and/or stays for delivery-related complications). This can occur when maternal stays that do not result in a delivery are coded incorrectly. On the other hand, counts of newborn delivery stays (code value = 2 above) may undercount actual deliveries (or children born under Medicaid).

MAX Person Summary File

The MAX Person Summary file includes the data element “delivery code” (data element #82 for 1999-2004 and data element #95 for 2005 and later years). This data element identifies all females for whom there was at least one inpatient hospital record for a stay during which a delivery occurred. It is set to value = 1 for an eligible woman if there was at least one inpatient hospital record in the year that contained a maternal delivery code, as defined above. This data element has value = 0 for an eligible woman if there was no inpatient hospital record in the year that contained a maternal delivery code. This data element should be set value = 0 for males. This data element is intended to identify those women who have had one or more deliveries in the year. Therefore, this data element does not necessarily count the number of deliveries during the year. For example, multiple births or deliveries following multiple pregnancies in the same year will be counted only once. Users may be able to identify multiple births and/or deliveries by using the MAX Inpatient Hospital file.

Caveats

It is important to note that the indicator identifies maternal deliveries in the mother’s Inpatient Hospital and Person Summary File records. In some instances the mother may not be eligible for Medicaid. For example, an undocumented alien may receive emergency care under Medicaid, but not be eligible otherwise. The indicator is set in a MAX Person Summary File record only if there is an inpatient hospital record for mother or for the mother and newborn combined. In these cases, there may be no Medicaid enrollment record for the mother, no inpatient hospital service record for the mother and consequently no MAX Person Summary File record with an indicator of a maternal delivery.

As noted in the response to the question “What are the records that are contained in each of the MAX files?” There are instances where there may be no MSIS enrollment records for some Medicaid service recipients. This may be true for some women who had deliveries. In these cases, there is a MAX Person Summary File for the woman that includes ONLY her Medicaid identification number and delivery indicator in the section of the record on eligibility characteristics.

The method of coding maternal deliveries is based on the predominant method of reporting deliveries in each state. Therefore, coding may be incorrect for claims that have been submitted according to alternative reporting methods that do not conform to the predominant reporting method. We did not have the resources to identify all possible reporting methods used in each state and to provide different coding criteria for each method.

FAQ2451 (Updated 08/04/2015)

How does the Medicaid Analytic eXtract (MAX) accurately and correctly identify program enrollees in Medicaid and CHIP?

This question generally asks if MAX is the “gold standard” for identifying and counting Medicaid and CHIP program enrollees by various characteristics (e.g. age, sex, basis of eligibility, Medicaid/Medicare dual enrollee status, etc.). While there are some flaws in MSIS and MAX data, we believe that these data are of very high quality in terms of correctly identifying Medicaid enrollees. We believe that the MSIS requirements, MAX enhancements and data quality reviews at several levels produce high quality MAX data. However, the MSIS and MAX data are derived from data in MMIS and other state systems and cannot be more complete and consistent than the data originating from those state systems. MSIS requires states to submit data for all Medicaid enrollees and Medicaid expansion Child Health Insurance Program (M-CHIP) enrollees.

States are given the option to report eligibility data for separate stand-alone CHIP (S-CHIP) enrollees in MSIS. Some of the States that have S-CHIP programs have elected to provide

enrollment data on at least some of their S-CHIP enrollees in MSIS. Data users can determine which States are submitting enrollment for at least some of their S-CHIP enrollees by examining the MAX validation reports for the Person Summary file. States report aggregate statistics for CHIP enrollees in the State Enrollment Data System (SEDS).

Unique Identifiers

MSIS requirements for state reporting are that each program enrollee should be assigned one and only one Medicaid Identifier (ID) that is permanent for the life of the enrollee. The state may choose to use either the person's Social Security Number (SSN) or a state assigned ID as the unique ID. If the state chooses to use a state assigned ID, SSN must still be reported. If the state chooses to use SSN as the unique ID, the state must report a temporary ID that is assigned by the state while application is being made to SSA for a permanent SSN. This is a recurring issue for newborns who do not receive SSNs immediately at birth. For newborns and any other enrollees who are assigned temporary IDs, the state must submit both temporary ID and SSN on a quarterly eligibility record for the person so that the temporary ID and the SSN can be cross-referenced for the same enrollee. In MAX, temporary IDs (from MSIS quarterly submissions) are replaced with permanent SSNs for all quarters of the calendar year. This may be a problem if there is only a temporary ID for all quarters of the calendar year and a permanent SSN has not yet been reported in MSIS.

MSIS quarterly eligibility submissions include both correction records for prior quarters and retroactive eligibility determinations. These records are reported in MSIS for the quarters in which the transactions occurred. The MAX processing moves these records into the proper time sequence to show actual months of enrollment for each month in the calendar year.

Identifying Dual Enrollees

MSIS reporting of dual enrollment (Medicare and Medicaid) has been challenging for several reasons. Some states have identified a large percentage of dual enrollees as unknown by type of dual status (e.g. QMB +, QMB only, SLMB +, SLMB only, etc.). Also, a few states have reported no dual enrollees as having full Medicaid coverage. In contrast, it is expected that > 85% of dual enrollees in every state should have full Medicaid coverage. One state did not

identify any dual enrollees in Fiscal 1999. The Center for Medicaid and State Operations is working with states to improve the quality of these data for 2003 and later years. MAX enrollment data have been linked to the Medicare Enrollment Database (EDB) to verify and improve identification of dual enrollees.

Specific Issues

The reality of MSIS reporting does entail some inconsistencies in state reported data. To the extent possible these problems are addressed in MAX production, as follows:

- State assigned IDs may be unique within a single state, but, by chance, two different states could assign the same ID to different persons. Likewise, an individual may move from state to state, resulting in two different state assigned IDs for the same person. These problems are not currently resolved in MSIS or MAX because data files are created for individual states. However, the problems are easily resolved in MSIS and MAX for multi-state analyses for most enrollees by using the enrollee's SSN rather than the state assigned ID.
- Despite the requirements to assign a permanent ID to a person for life, some states that choose the option to use state assigned IDs do re-enumerate their enrollees on occasion. Whenever it is determined that such re-enumerations occur, a cross-reference file is requested from the state that is used in MAX to create a consistent ID for each unique enrollee over time. SSNs are used to assist in this process. Wherever possible, this problem is resolved in MAX. When it is not possible to resolve the problem in MAX, the MAX anomaly reports contain helpful information for data users.
- For some dual enrollees, some spouses incorrectly report the Medicare Claim Account Number (CAN) from an account on which they receive auxiliary benefits (as a spouse, widow, child, etc.) as their own SSN. For example, a spouse will report her husband's SSN as though it were her SSN. The MAX process of linking to the Medicare Enrollment Data Base (EDB) is a two-step process that resolves most of these errors.
- States generally report SSNs for a very high percentage of their program enrollees. For 1999, across all states, about 92.5 percent of enrollment records contain SSNs. Excluding California, 95.5 percent of enrollment records contain SSNs. For California, the percentage was about 78 percent of California's 7.3 million enrollees. There may be

various reasons why SSN is not reported for some Medicaid enrollees in MSIS. The largest group without SSNs is probably undocumented aliens, many of whom may receive only emergency care from Medicaid. This is particularly the case for Medicaid in California. There is no reasonable way to resolve the problem of missing SSNs in either in MSIS or in MAX.

FAQ2433 (Updated 08/04/2015)

In the Medicaid Analytic eXtract (MAX) data, is it possible to distinguish among the four CFR entitlement groups mapped into the MAX Eligibility Group, value = 11 for aged cash-assistance enrollees?

The MAX Eligibility group is reported in data elements #30 and #40 in the MAX 2005-2009 Person Summary File and data elements #21 and #34 in the MAX 1999-2004 Person Summary File. The MAX Eligibility Group combines two MSIS data elements – Maintenance Assistance Status (MAS) and Basis of Eligibility (BOE). Attachment 3 (Comprehensive Eligibility Crosswalk) to the Medicaid Statistical Information System (MSIS) File Specifications and Data Dictionary (available at <http://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MSIS/Downloads/msisdd2010.pdf>) provides information to states on how to map eligibility groups defined in the Code of Federal Regulations (CFR) into each MAS/BOE code pair. There are four groups of people entitled to Medicaid in the CFR that states should map into the MAS/BOE pair that represents MAX Uniform Eligibility Code value = 11.

In T-MSIS data, MAS/BOE is being phased out and states are being required to submit T-MSIS Eligibility Group instead. This change may confound mapping of aged cash-assistance enrollees.

It may or may not be possible for users to identify the specific CFR eligibility citations for individual enrollees on a state-by-state basis. States vary in terms of the detail that is identified in their individual eligibility mapping factors reported in MSIS data element “Eligibility Group” and captured in the MAX data element “State Specific Eligibility Code” (data elements #29 and #39 in the MAX 2005-2009 Person Summary File and data elements #20 and #33 in the MAX

1999-2004 Person Summary File). If a user had access to the state-supplied definitions for those factors and there was sufficient detail in the factors, the user could identify the specific condition (citation) that was behind the mapping to the MSIS MAS/BOE category. Users should be warned that this could be a complex, tedious task that may not produce the desired results for all states.

FAQ2915 (Updated 02/21/2018)

How has the quality of Medicaid Analytic eXtract (MAX) data changed over the years and what is the quality now?

First, there has been a great deal of effort expended to improve the parent MSIS data and MAX data in recent years. There are a number of initiatives under way currently with the MAX-PDQ contract to enhance quality improvement. Having said this, there are several dimensions in answering this question:

Data Quality in State Systems

First, it is important to recognize that the MAX data have their origins in state Medicaid Management Information Systems (MMISs) that have been designed to meet the specific requirements of each state. The purpose of each state MMIS system is to operate the Medicaid program in that state (e.g. enroll persons in Medicaid, pay claims for fee-for-service providers, enroll providers, etc.). The bulk of the standards for these systems are operational in nature and do not specify standard definitions of data element and standard code values in state MMIS systems. The source data for MSIS and MAX are a by-product of these operating systems. Quality is generally higher for data elements that are required for transactions or subject to audit. Examples include paid amounts for fee-for-service (FFS) claims and DRGs for hospital care when a state reimburses hospital care using a DRG-based payment system. Lower quality could be expected for other data elements that are not subject to audit, such as zip code of residence. Quality for a particular data element may vary from state to state and within a state over time (particularly when Fiscal Agent changes occur). In terms of service utilization, data quality is typically much higher for services delivered under FFS than for services delivered under prepaid

plans. It is true that HIPAA is making changes to state systems, but those changes will take time and it is unlikely that they will result in complete standardization of data.

Data Quality Efforts in MSIS

CMS requires that states extract and recode data from their MMIS systems into standard MSIS definitions according to a document promulgated by CMSO known as the "Medicaid Statistical Information System – Tape Specifications and Data Dictionary". Copies of this document are available on the CMS web site at: www.cms.gov/MSIS/Downloads/msisdd2010.pdf. The dictionary includes error tolerances for each data element. CMS intake processing activities set error condition codes for each data element. Based on the extent of errors found within each MSIS file submitted by a state, the file may either pass or fail CMS acceptance testing. If a file fails, the state must make corrections until the file passes acceptance testing.

Because state participation in MSIS was voluntary prior to FY 1999, only 38 states submitted the data for FY 1998. For data submissions prior to FY 1999, CMS resources were limited to answer questions from states or provide technical assistance as states attempted to comply with MSIS requirements.

Beginning with FY 1999, MSIS participation was mandated for all states. CMS increased resources for the MSIS intake effort, resulting in several enhancements:

- The MSIS Data Dictionary was expanded to add new data elements, revised definitions and expanded code values for existing data elements;
- All states were required to provide CMS with a detailed "application" package which provided CMS with a wealth of information about the unique features of each state's Medicaid system (e.g. hospital payment methods - DRGs, claims adjustments methods, managed care plan names linked to plan identifying numbers, explanations of state-defined service codes, crosswalks of state eligibility codes and type of service codes to MSIS standard codes and provider specialty codes);
- CMS contracted with Mathematica Policy Research (MPR) to review the application packages, to determine the degree to which submitted data are consistent with information provided in the application, to review submitted data according to the

tolerance criteria and other standards and to assist states to make corrections when data files fail acceptance testing; and

- Through CMS's contract, MPR has also developed two types of products for CMS that document data quality on a state by state basis: MSIS state data validation reports and an MSIS data "anomalies" report.

Data Quality Efforts in SMRF and MAX

For SMRF data production (prior to CY 1998), there were significant activities to validate state mapping of their state-specific eligibility and TOS codes into standard MSIS codes. Remapping was done when errors and inconsistencies were discovered. Because the unit of observation for SMRF services is the "final action event" (e.g. hospital stay, visit, prescription, etc.), it was necessary to develop state-specific claims adjustment methods to combine interim claims (originals, voids and adjustments). A number of other data quality checks were also implemented. Finally, an overall assessment of the quality of SMRF data was conducted through a review of SMRF validation reports. Whenever possible, SMRF files were reprocessed to fix problems judged to be significant by the MAX development team.

Beginning with CY 1999 data, the MAX process has built upon and expanded the existing SMRF data quality effort. In addition, expanded review and validation of the MSIS data submitted by states, initiated for Fiscal 1999, has eliminated some problems that would previously have been discovered downstream in the SMRF validation process. In many instances, data are resubmitted by states to eliminate problems. However, it should be noted that there are some data problems in the data as it is submitted by states that cannot be fixed. In these instances, neither the state is able to correct the problem nor can the MAX development team devise a reasonable fix to correct the problem. In these instances, MAX production includes data anomalies reports on an annual basis (similar to that developed for MSIS).

How can I determine who is living in a long-term care facility (either nursing facility or other type of long-term care facility) using Medicaid Analytic eXtract (MAX) claims or enrollment data?

Neither the eligibility nor the claims data include a specific indicator to identify enrollees living in a nursing facility or other type of long-term care facility. Likewise, there is no specific indicator to identify enrollees living in the community who may have short “episodes” in a long-term care facility.

However, it is possible to make some inferences based on an examination of services received in long-term care institutions using service records that are reported in the MSIS and MAX long-term care (LT) files, for the following types of services (TOS):

TOS = 02 – mental hospital services for the aged,

TOS = 04 – inpatient psychiatric facility services for individuals under the age of 21,

TOS = 05 – inpatient care facility (ICF) for the mentally retarded, and

TOS = 07 – nursing facility (NF) services – all other.

Medicaid does not provide coverage of services for persons between 21 and 65 years of age who reside in mental institutions. These institutions are known as Institutions for Mental Disease (IMDs). However, states are required to provide short-term acute care for mental illnesses in general hospitals for all enrollees. The mentally ill between 21 and 65 years of age may receive Medicaid services that do not specialize in mental health care, such as nursing facilities. Because of this, many mentally ill enrollees reside in non-psychiatric facilities.

FAQ2443 (Updated 08/04/2015)

Is information on the various Medicaid waiver programs available? Where can this information be found?

Information on various Medicaid waiver programs are available at:

<http://www.medicaid.gov/State-Resource-Center/Medicaid-State-Technical-Assistance/Health->

[Homes-Technical-Assistance/Downloads/At-a-glance-medicaid-Authorities.pdf](#). This web page has links to descriptions of the 1115, 1915(b), 1915(c) (also known as 2176) and 1915(b)(c) combination waivers.

FAQ2463 (Updated 08/04/2015)

Is it possible to identify pregnant women in the Medicaid Analytic eXtract (MAX) data?

Unfortunately, there is no reliable way to identify all pregnant women in either MSIS or MAX data. Pregnant women cannot be reliably identified from MSIS Basis of Eligibility (BOE) or Maintenance Assistance Status (MAS) groups that are used to create MAX uniform eligibility codes. Also, there is no reliable way to identify all of these women in claims data because of alternative ways in which providers can bill for prenatal care (e.g. global billing). It is possible to identify some pregnant women using service codes in claims data and working backward from the date of birth of the newborn. There may be a number of problems with this approach, including the enrollment of mothers and newborns in prepaid plans. As noted elsewhere, reporting of encounter records for persons in prepaid plans is incomplete at this time.

FAQ2449 (Updated 08/04/2015)

How can dual Medicare and Medicaid enrollees with selected diagnoses, procedures and/or medical conditions be accurately identified in the Medicaid Analytic eXtract (MAX) data?

The answer to this question depends on the fact that Medicare is the first payer for covered Part A, B and D services for dual enrollees. A user should link MAX enrollment data with Medicare enrollment data for these enrollees, then access Medicare and Medicaid service (claims) records for the enrollee from both systems to identify completely selected diagnoses, procedures and/or medical conditions for the enrollee. For dual enrollees, data from MAX are not likely to identify fully all of the diagnoses, procedures and/or medical conditions for that enrollee. For data housed in the Medicare Chronic Condition Warehouse, a number of chronic health conditions are identified.

Can program enrollees with specific illnesses or medical conditions be identified in the Medicaid Analytic eXtract (MAX) data?

Users must remember that the MSIS and MAX data are extracts from state Medicaid data systems used for eligibility and claims payment administrative systems. As such, these data do not directly identify persons with specific illnesses or medical conditions. Instead, users should develop a set of criteria to identify a catchment group of individuals who may have the illness or medical condition. The criteria may include specific diagnoses, procedures, prescription drugs or services that were provided to the person. Users should be careful to develop the criteria in a way that casts a “broad net” of possible individuals for the study population. The idea is to develop criteria that include all possible individuals, even those who may marginally meet the criteria. Once a set of initial criteria is developed and run against the data, users should examine profiles of the selected individuals to determine if the criteria should be refined to remove some individuals from the study population.

For criteria related to diagnosis codes, users should consider: ICD-9-CM

- With regard to diagnoses, users should consider whether they want to select persons based on all diagnoses reported or just on the principal diagnosis, given that states may vary in how they determine which diagnosis to report as the principal diagnosis.
- Users should be aware of the potential for under-reporting of some diagnoses.
- Users may want to use the MAX Validation Tables to examine the percent of records containing primary diagnosis codes of length 3, 4 or 5.
- Users should be aware that diagnosis codes for persons in nursing facilities and other institutions may not be up-to-date or complete.

For criteria related to inpatient hospital procedures, users should consider that states are not required to use a single standard coding system. Different systems (e.g. ICD-9-CM and CPT-4) may be in use even within a single state.

For criteria related to outpatient procedure (service) codes, users should know that some states are required to use standardized coding (Level 1 – CPT codes and Level 2 – HCPCS codes) for most ambulatory services. States also use Level 3 state-defined (state-specific) codes in both standard and non-standard formats. There are two standard formats: (1) ANNNN where A has an alpha value of W-Z and N is numeric or (2) AANN where A is alpha and N is numeric. However, states sometimes use non-standard formats for state-specific codes. States also use UB-92 codes for services billed on UB-92 forms (e.g. hospital outpatient services). The procedure (service) code modifier may be useful to provide more information about services provided that relate to a procedure (e.g. assistance in surgery). However, users should exercise care not to over-count services delivered. For example, there may be a single surgery with more than one service record for the surgery (e.g. a physician record for the surgery and a second record for assistance in that surgery).

Data users may also want to consider the use of prescribed drugs as indicators of selected conditions. Users should note that injectable drugs that are administered by a medical provider will be found in the MAX OT file.

Using claims-based criteria to identify a catchment group in this way has some important limitations for some groups of Medicaid enrollees. For persons enrolled in prepaid managed care plans, reporting of “encounter” data reporting from most plans has been judged to lack the completeness and consistency to support a wide variety of research activities at this time. Also, claims data for dual Medicaid and Medicare enrollees may be missing diagnosis and/or procedure codes. This may result from Medicare’s role as the primary payer of care for dual enrollees. In addition, details on service utilization may not be available for all women receiving prenatal care. Users should review the response to the Question “Can I obtain a complete view of all health services delivered to Medicaid enrollees by using the MAX data?” for more details.

Even with regard to the same illness or medical conditions, not all users may agree on the criteria. For example, not all researchers studying diabetes will want to select the exact same set of diagnosis codes. For some types of research, users may want to consider if they want to

identify a study population by defining a sentinel event (e.g. diagnosis of asthma by a physician) and then identify a “window” of time before or after the event to examine services delivered. Users should also consider whether they simply want to examine services for only the illness or medical condition (e.g. diabetes care) or whether they want to examine all services provided to individuals who have the illness or medical condition (e.g. all services to persons who have diabetes). These considerations may result in different record selection criteria based on the user’s specific research questions.

Users should be reminded that MSIS and MAX data contain records of services provided to Medicaid enrollees up to the amount, duration and scope of coverage provided by each State Medicaid agency. If the services were covered by another payer (e.g. Medicare, Veteran’s Administration, out-of-pocket, block grants, or Ryan White coverage for HIV/AIDS patients), some services used by Medicaid enrollees with the target illness (or condition) may not be included in the MAX data. Therefore, some Medicaid enrollees with the target illness (or condition) may not be identified as having the target illness (or condition) by using the MAX data.

Users should also be aware that identifying persons with some illnesses and medical conditions may be fairly direct and the catchment group may include nearly all of the target population. For others, such as persons with HIV/AIDS, identification of the entire population (or even a representative subpopulation) may be much more difficult.

FAQ2439 (Updated 08/04/2015)

To what extent is the same person enrolled in more than one state Medicaid program and what is being done to un-duplicate unique persons?

To address this and related needs, we have designed and implemented a new MAX Enrollee Master (MAXEM) data set that un-duplicates enrollee records both within and across years and within and across states. Two reports have been completed and released. The first report describes the design and development of the MAXEM data for 2005 and 2006. The second

report describes the design and development of the MAXEM data for 2005-2007. While these data sets will not be released to the research community, there is a wealth of information contained in these reports about enrollees with more than one record within a state and across states and enrollment over time. In a given year, the number of duplicate records is a relatively small percent of the total enrolled population. Data from the MAXEM report on 2005-2007 data, titled "Continued Development of the Medicaid Analytic Extract Enrollee Master (MAXEM) File - Final Report, May 27, 2011", shows that a small percentage of MAX Person Summary records within and across the States and the District of Columbia were duplicates in each of the study years. Across all Medicaid eligibility groups and out of about 60 million Person Summary records in each year, the percentages of duplicates were 2.7% in 2005 (1,585,990), 2.5% in 2006 (1,509,611) and 2.2% in 2007 (1,333,841). These overall percentages varied by the major eligibility groups: aged, disabled, child and adults. In all three years, duplicate records among disabled and child enrollees occur at about twice the frequency as they did among aged enrollees and about 50 percent more often than they did among adult enrollees.

FAQ3563 (Updated 08/04/2015)

To what extent are Medicaid Analytic eXtract (MAX) data elements for age group (including ages 65 and over) and eligibility group (including aged) different?

These two data elements provide fundamentally different ways to examine enrollee characteristics, as follows:

Eligible Age Group Code

Enrollee age is computed from the data element "eligible birth date". Coding of enrollee age group is based on the computation of age using date of birth. Age is determined as attained age as of December 31 of the year of the MAX data file in use. Each calculated age is subsequently assigned to one of the ten age groups (codes 0-9) in the data element "eligible age group" (data element #9). Please refer to the MAX Person Summary File data dictionary for the code definitions.

For example, a Medicaid enrollee in the 2007 MAX data file with a date of birth of April 2, 1970 would be assigned an age of 36 years and Age Group Code = 4 (age 21-44). As a second example, any person born in 2007 is reported as age = 0 and Age Group Code = 0 (under age 1) in the 2007 MAX data, because they have not yet attained age 1 as of December 31, 2007.

MAX Uniform Eligibility (Group) Code

This data element should be used to determine the legal basis on which the enrollee was granted Medicaid eligibility. Users should note that these determinations may be made either on a person or a “case” basis. A case may consist of one or more persons who are part of a family or an “economic unit”. Therefore, application of case-based eligibility determinations to each person in the case may appear to be inconsistent to some users. For example, an enrollee’s age and eligibility group may appear to be inconsistent. This data element is created using the MSIS Maintenance Assistance Status (MAS) and the MSIS Basis of Eligibility (BOE) codes. The resulting eligibility group codes are mutually exclusive in that an enrollee may be assigned to only one group in any given month. The MAX eligibility group code identifies the basis on which Medicaid eligibility was determined, regardless of age. It is important to note that:

- Blind and Disabled groups include individuals of any age who were determined to be eligible because of disability. This may include children, adults and persons age 65 and over.
- It is important to note that, unlike Medicare, disabled Medicaid enrollees are not necessarily reclassified as aged enrollees when they attain age 65. This may vary by state.
- There may be individuals who are under age 65 who are correctly identified as aged enrollees according to the MAX eligibility group. This is because a small number of SSI cases may include two or more individuals where the eligibility determination was made on the basis of an individual age 65 or over, but another member of the case is under age 65 (e.g. a 65 year-old individual with a 63 year-old spouse).
- As a result of differences in state approaches for classifying children into BOE groups, researchers wanting to study children should probably use an age sort, instead of the child BOE. Otherwise, some persons under age 21 (or whatever age cutoff is used) in some states will be missed, because they are reported in the adult BOE. This is because states

vary in how they assign non-disabled, non-aged individuals to the child and adult BOEs. Some states assign the BOE of child and adult based on age. That is, they use an age sort, so that all non-disabled persons under age 19 (age 20 or age 21, depending on the state) are counted as children. Then, all the non-disabled persons under age 65 and over age 18 (age 19 or age 20, depending on the state) are counted as adults. In other states, the BOE of child or adult is based on an individual's position in the family unit applying for Medicaid. This generally means that children are reported in the child BOE and parents and caretaker relatives are reported in the adult BOE. With this approach, teenage parents will be reported in the adult BOE, not in the child BOE.

Starting with 2014 data, MAX is using T-MSIS data as input to the MAX production process for some states. This enables the MAX production team to add T-MSIS Eligibility Group to the MAX Person Summary (PS) file data dictionary beginning with 2014. However, states may end reporting of Maintenance Assistance Status (MAS) and Basis of Eligibility (BOE) groups in favor of reporting T-MSIS Eligibility Group. There is no direct one-to-one mapping of codes from one system to another, which may complicate analytic design for some researchers doing longitudinal analyses.

FAQ2431 (Updated 02/21/2018)

To what extent can American Indian or Alaskan Native (AIAN) enrollees be identified in Medicaid Analytic eXtract (MAX)?

MSIS, T-MSIS and MAX capture race and ethnicity (data elements #14-19 in MAX 2005-2009), including identification of AIAN enrollees as reported by State Medicaid agencies in MSIS. However, through comparison to aggregate counts available through the Indian Health Service (IHS), it is believed that there is substantial underreporting of AIAN enrollees in MSIS and MAX. Without actually linking to either IHS Active User data or Tribal Registry data, it is likely that the underreporting will remain in Medicaid. However, data users should maximize their ability to identify AIAN enrollees in Medicaid by using all of the available data elements in MAX to identify AIAN enrollees:

- Race/Ethnicity Code (Data Element #14 in 2005-2009) Value = 3 (American Indian or Alaskan Native), or
- Race – American Indian/Alaskan Native (Data element #17 in 2005-2009), or
- Medicare Race/Ethnicity Code (Data element #21 in 2005-2009) Value = 6 North American Native

The Medicare Race/Ethnicity Code is added to MAX through the link between MAX records and records in the Medicare Enrollment Database (EDB). Reporting of AIAN enrollees in Medicaid should be more complete for dual enrollees (as compared to non-dual enrollees) because code value = 6 refers to the AIAN population and is verified quarterly with data from the IHS. While in most states the inclusion of the Medicare race/ethnicity information should not cause a dramatic difference in the counts of AIAN, in a few states, the inclusion may increase the number of AIAN identified by more than 10 percent for States such as Massachusetts, Rhode Island, and Indiana.

It is unclear if the complete and accurate identification of AIAN enrollees will improve in T-MSIS.

FAQ3561 (Updated 02/21/2018)

Can I identify Medicaid beneficiaries who are eligible due to a waiver program using Medicaid Analytic eXtract (MAX) service (claims) records?

Identifying waiver enrollees through service records has many potential pitfalls. In general, it should be noted that not all states correctly report claims for services provided under waivers. There are at least four major issues:

- (1) Some states may not submit claims for all waiver services,
- (2) Some waiver claims may be included and correctly identified as waiver claims,
- (3) Some waiver claims may be included but not correctly identified as waiver claims, and

(4) At least one state has submitted waiver claims as service tracking claims where claims for more than one person are combined.

Also, not all persons enrolled in waiver programs use waiver services.

For 1999 and later

For MAX 1999 (and later) data, the claims data element “Program Type” has two code values to identify waiver services:

- 6 = Home and Community Based Care for Disabled Elderly and Individuals Age 65 and Older - Section 1915(d)
- 7 = Home and Community Based Care Waiver Services – Section 1915(c)

Attachment 5, Program Type Reference, to the MSIS instructions to states provides definitions for each of these code values: States are to code 1915(d) waivers as type 6 and 1915(c) as type 7 waivers. However, as a practical matter, most states did not differentiate between 1915(c) and 1915(d) waivers. To the extent that states actually reported waiver services in this way, most used only one of the two values (either 6 or 7, regardless of the types of home and community based waivers they had). So, when using the program type variable to identify waiver services, it is best to use both values 6 and 7. It should be noted that this categorization does not identify the specific waiver under which a service is delivered.

As noted above, the reporting of waiver services has been incomplete. There has been improvement, but not all states are reporting waiver services and many states may be including only some of their waiver services in MSIS or only identifying a subset of all waiver services as waiver services via the “Program Type” codes (as of August, 2004). It is hoped that reporting of waiver services will improve in T-MSIS. For reasons that are unclear, some enrollees who are identified as waiver enrollees appear to never receive services through the waiver. There are several possible reasons: services are not reported, services are not identified as waiver services, some enrollees die before they receive any waiver services, or they did not actually use services.

It is possible that waiver services could be identified from state-specific procedure (service) codes that were in use prior to HIPAA implementation (in April, 2004) and sometimes in use after HIPAA implementation. However, this approach would be tedious, resource-intensive and would vary from state to state because codes may vary from state to state and perhaps across years within a state.

In particular, since some services provided through a waiver could also be provided to non-waiver enrollees under state plan provisions (e.g. personal care), using procedure or service codes may not precisely identify waiver recipients.

In summary, it may be very difficult to develop a consistent approach to identify either waiver enrollees or waiver services prior to 1999. Beginning in 1999, the expansion of eligibility codes to include Section 1115 waiver enrollees should improve reporting for these waiver enrollees. Also, addition of the “Program Type” data element should remove some of the ambiguity in MSIS reporting requirements. However, there may still be inconsistencies in the reporting of waiver services. The addition of Waiver Type and Waiver ID data elements in Fiscal 2005 should greatly improve identification of enrollees in Section 1115, 1915(b) and 1915(c) waivers.

FAQ2467 (Updated 02/18/2018)

Is it possible to determine living arrangements for Medicaid and CHIP in enrollees in MSIS, T-MSIS and Medicaid Analytic eXtract (MAX) data?

There are many different types of living arrangements, such as independent living in the community, nursing facilities, congregate living facilities, shelters, dormitories, assisted living facilities, hospice, drug treatment facilities and others. Unfortunately, the Medicaid MSIS and MAX data, derived from MSIS, do not identify living arrangements. However, using Medicaid services delivered to an enrollee, there are some indirect ways to infer living arrangements during some months for some enrollees. For example, from MAX service records it is possible to determine if an enrollee received any of the following services in a given month:

- Nursing Facility (NF) services

- Intermediate Care Facility for the Mentally Retarded (ICF-MR)
- Inpatient Psychiatric Facility for persons under age 21
- Mental Hospital for the Aged
- Home and Community-Based Care waiver services
- Other

T-MSIS and the new data system that will ultimately replace MAX, known as the T-MSIS Analytic Files (TAFs) will capture living arrangements.

FAQ3549 (Updated 02/18/2018)

Are CHIP program enrollees included in MSIS, T-MSIS and Medicaid Analytic eXtract (MAX) and what data are available for these enrollees?

Current MSIS/T-MSIS specifications require States to report CHIP enrollment and services for all Medicaid expansion CHIP (M-CHIP) enrollees. The capture of these data is comparable to that of non-CHIP Medicaid enrollees. By this, we mean that reporting of M-CHIP enrollment and any services provided to M-CHIP enrollees on a fee-for-service basis should be relatively complete and accurate. However, other FAQs discuss limitations and inconsistencies of State reporting of encounter records for persons in prepaid managed care plans. These same limitations and inconsistencies apply to encounter records for M-CHIP enrollees in prepaid managed care plans. In the past, data for separate stand-alone CHIP (S-CHIP) enrollees was limited in MSIS and MAX. States had the option of reporting enrollment for S-CHIP enrollees. Some states reported for all S-CHIP enrollees, others for some S-CHIP enrollees and others for none of their S-CHIP enrollees. In the new T-MSIS system, states are being required to report enrollment and services for all CHIP enrollees.

FAQ3553 (Updated 02/18/2018)

Does Medicaid Analytic eXtract (MAX) data include characteristics of Medicaid and CHIP service providers - e.g. name, address, National Provider Identifier (NPI) and other characteristics?

Unfortunately, MSIS and MAX data do not capture detailed information on provider characteristics at this time. The only information about providers that is captured currently is the State-assigned provider identifier (not directly linkable to other provider characteristics data sources), State-reported provider specialty for some providers and, beginning in Fiscal 2009, the NPI. Through the American Recovery and Reinvestment Act, a number of enhancements are being made to the MAX data. These enhancements include the development of a MAX Provider Characteristics (MAXPC) file, starting with Calendar 2009. This work will produce the first Medicaid/MAX provider characteristics file, but will most likely not provide characteristics on all Medicaid and CHIP providers. This is because the MAXPC file is being populated using a link between the NPI in the MAX claims records and the NPI in the National Plan and Provider Enrollment System (NPES). The issuance of NPIs is typically limited only to medical providers. Non-medical providers (e.g. transportation, many waiver services, etc.) are not usually issued NPIs. For these non-medical providers, we will obtain provider characteristics directly from State Medicaid agencies, to the extent possible, in the short term. In the longer term, CMS has plans to capture Medicaid provider characteristics directly from State Medicaid agencies through expanded MSIS reporting. When those data are captured in MSIS reporting, they will be added to MAX.

FAQ3551 (Updated 08/04/2015)

How reliable is Medicaid Covered Inpatient Days in the MAX Inpatient Hospital (IP) data?

Medicaid Covered Inpatient Days from MAX IP records should be used with caution. In many cases, the Medicaid Covered Inpatient Days data element accurately reflects Length of Stay (LOS), but in some cases Medicaid covered Inpatient Days can be an inaccurate measure of LOS. Here are some selected examples:

- Medicaid Covered Inpatient Days are set to zero for IP crossover records (claims for which both Medicare and Medicaid make payments) for dual Medicare and Medicaid enrollees. This is because Medicare is the first payer. Medicaid pays for only copayment and deductible amounts, as applicable.

- MSIS instructions for Medicaid Covered Inpatient Days state that, if the claim is a combined mother/newborn claim, the days should include both the days for the mother and the newborn. In this instance, the count of covered days could exceed the number of days from beginning to ending dates of service. Also, there would be no easy way to separate days for the mother from days for the newborn.
- For IP records whose Medicaid Covered Inpatient Days data element value is greater than 365, the data element value is recoded to 365. This could occur for very long stays.

For these and other reasons, the claims adjustment process may cause the Medicaid Covered Inpatient Days data element to have a value that is inconsistent with the beginning and ending dates of service. To determine LOS, researchers are urged to calculate the value instead of using Medicaid Covered Inpatient Days. The most accurate calculation is to count the number of days from the beginning date of service to the ending date of service plus one day. There should be no inpatient hospital stays with LOS = 0. If a patient was admitted and discharged on the same day, LOS = 1.

FAQ 7487 (Updated 08/04/15)

In the Medicaid Analytic eXtract (MAX) data, how is the age of an enrollee determined?

For each enrollee "eligible birth date" is reported in MAX data element #11 in the Person Summary File (MAX 2005-2009). For all years of MAX, age is determined as of December 31 of the year. For example, any person born in 2008 is reported as age = 0 in the 2008 MAX data, because they have not yet attained age 1 on or before December 31, 2008.

FAQ2923 (Updated 08/04/2015)

How can different types of dual Medicaid and Medicare enrollees be identified in Medicaid Analytic eXtract (MAX)?

They can be identified using monthly MAX Medicaid dual code (data element #38 in MAX). This data element was added to the MAX Person Summary file data dictionary for 2005, but was not populated for that year, being 9-filled. It is available for data users beginning with 2006.

FAQ3559 (Updated 08/04/2015)

Is it possible to determine if a Medicaid enrollee was served in a long-term facility during a given month or year?

We recommend that users infer service in a long-term care facility on a monthly basis (for one or more of the long-term care TOS values), as follows: (1) If there is one (or more) MAX records for long-term care services for the individual, covering any number of days in the month, assume that the individual resided in that type of institution in the month, and (2) If there were no MAX records for long-term care services for the individual, for any days in the month, assume that the individual did not reside in that type of institution in the month. For a user who plans to conduct analyses spanning several months or the entire year, we recommend that the users separate long-term care residents into two groups:

- The first group could be described as continuous or “fully” institutionalized persons. These are enrollees who had records for long-term care services covering every month of Medicaid enrollment during the year.
- The second group could be described as discontinuous or “intermittently” institutionalized persons. These are enrollees who had records for long-term care services covering at least one month but fewer than the total number of months of Medicaid enrollment during the year.

An alternative approach, to that presented above, might be to count the number of Medicaid covered days, for the type of institution(s), in a month (or year) and compare that day count to the number of days the individual was eligible for Medicaid in a month (or year). This approach is NOT valid. For example, a user might be inclined to say that an individual is: (1) “fully” institutionalized if the number of institutional days is greater than or equal to the number of days

of eligibility, (2) “intermittently” institutionalized if the number of institutional days is greater than zero but less than the number of days of eligibility, or (3) “non-institutionalized” if the number of institutional days is less than or equal to zero. Medicaid long-term care records, as reported in the MAX data, CANNOT support this type of categorization for enrollees. Day counts may vary because an individual has leave days (days the person is not in the institutional facility for a variety of reasons), acute days (days the person has an acute episode involving a hospital stay), or institutional days covered by other payers (e.g. Medicare, private pay, or long-term care insurance). In addition, institutions may submit bills in other ways that create problems in counting institutional days. A hypothetical example may illustrate the problem. Say that a patient was eligible for Medicaid from March 1 through March 31, was institutionalized in facility X from March 5 continuously through March 31 and received facility-based ancillary services (e.g. physical therapy) between March 10 and March 31. The facility may submit two bills: (1) For the per-diem amount, spanning 26 days, and (2) for the ancillary services, spanning 22 days. The total day count for the two claims would be 48, greater than the number of days in the month. If the day field were edited to be less than or equal to 31 days, a data user might assume (incorrectly) that the person was “fully” institutionalized for all of March. There is no sure way to determine which bill was for the per-diem and which bill was for ancillary services. Because of this, there is no reasonable way to resolve this dilemma. So, determining institutional status on the basis of day counts is not advised, because it may not produce valid and consistent results.

FAQ2445 (Updated 08/04/2015)

What information is available on State Medicaid and CHIP program characteristics (e.g. optional eligibility and service coverage, choice of a Medically Needy program, waivers, etc.)?

A new system, known as Medicaid and CHIP Program (MACPro), is being developed to capture detailed information on state Medicaid program characteristics.

FAQ3555 (Updated 02/21/2018)

Can I identify persons who are enrolled in a Medicaid waiver program using the Medicaid Analytic eXtract (MAX) Person Summary File data?

For years 1999-2004

In the MAX files for CY 1999-2004, Personal Summary file data elements known as State Specific Eligibility Code (data elements #20 and #33), contain non-standardized eligibility codes used by each state for eligibility, which may, in some cases, contain information about waiver eligibility. The meaning of these codes varies by state and would require contact with each state to identify the coding during the time period of the eligibility file. Use of this variable is not recommended.

In the MAX Personal Summary file for years 1999-2004, Uniform Eligibility Code (data elements #21 and #34) provide uniform eligibility codes, allowing comparison across states. Code values allow states to identify persons enrolled in Section 1115 demonstrations.

For these years, it is not possible to identify enrollees in home and community based care waivers using the MSIS eligibility file or the eligibility portion of the MAX Person Summary File.

For years 2005 forward

Beginning with MSIS reporting in the first quarter of FY05, states are supposed to report monthly waiver enrollment for each enrollee for up to three waivers per person per month in two new data elements: “Waiver Type” and “Waiver ID”. For example, this allows a state to show that a particular enrollee is: enrolled in a Section 1115 waiver demonstration expansion, is covered under a 1915(b) waiver of state-wideness, and is enrolled in a 1915(c) home and community based waiver.

In Medicaid Analytic eXtract (MAX), how are inpatient hospital stays different from inpatient hospital discharges?

The MAX production team attempts to create final action events by combining original claims, voids, credits and debits submitted by States in MSIS. This is known as the claims adjustment process. The first step in the process is to identify a claims adjustment set, which is defined as a group of claims for the same enrollee, the same provider and the same or overlapping days of service. Once the adjustment claims set is identified, there are rules to combine those records into a single “final action” event record, in this case for the hospital stay. Each inpatient hospital claim contains beginning and ending dates of service. At least one claim in the adjustment set should contain a date of discharge. However, States may sometimes not report all of the claims that should be part of an adjustment set in their MSIS reporting. Therefore, we have created two measures for data users. Hospital stays are those final action event records that may or may not have had a claim with a discharge date in the adjustment set. Hospital discharges are the subset of those final action event records that had a claim with a discharge date in the adjustment set.

FAQ3567 (Updated 08/04/2015)

Using Medicaid Analytic eXtract (MAX), how can a data user determine which Medicaid enrollees have restricted benefits?

The primary way to identify enrollees who have restricted benefits is by using the monthly restricted benefits flag (data element #55 in MAX 2005-2009). In addition, some dual Medicaid and Medicare enrollees have restricted benefits. Using monthly Medicaid dual code (data element #38 in MAX 2006-2009), users can identify specific types of dual enrollees with restricted benefits: QMB only (codes = 01 and 51), SLMB only (codes = 03 and 53), QDWI (codes = 05 and 55), QI-1 (codes = 06 and 56), QI-2 (codes = 07 and 57).

FAQ3557 (Updated 08/04/2015)

Is it possible to identify newborns in the Medicaid Analytic eXtract (MAX) data?

Newborns under age 1 can be identified by using the data element “eligible age group code” (data element #9) and selecting the value = 0 (age under 1).

Identifying newborns more narrowly can be accomplished by using “eligible birth date” to make an age calculation.

In some states, newborns use their mother’s Medicaid ID for the first few months so they can’t be separately identified in the file until they are assigned their own number. This can be a problem especially if they are born near the end of a calendar year and have not yet received their own number by year’s end. In this instance, it may not be possible to track this newborn into the following year.

Some newborns, born to mothers enrolled in Medicaid, may not retain Medicaid enrollment after they become 1 year of age if they are poverty-related enrollees above 133% of the Federal Poverty Level.

FAQ2447 (Update 08/04/2015)

How accurate and complete is the reporting by State Medicaid agencies for Medicaid Analytic eXtract (MAX) data elements?

The MAX Validation Reports and Data Anomalies Reports provide insight into the completeness and accuracy of reporting for many of the MAX data elements. These reports are available on the MAX web site at <http://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidDataSourcesGenInfo/MAXGeneralInformation.html>

FAQ2917 (Updated 08/04/2015)

How good is the quality of encounter records for persons enrolled in prepaid plans (HMOs, HIOs, PHPs, etc.) in the Medicaid Statistical Information System (MSIS) and Medicaid Analytic eXtract (MAX)?

First, enrollment data for persons in prepaid plans should be complete and should identify the months of enrollment in prepaid plans. In addition, “claim” records for premium payments should be complete and consistent. Many Medicaid eligible individuals receive care from both fee-for-service systems and prepaid plans. This is because many Medicaid eligible individuals who are enrolled in comprehensive plans (e.g. Health Maintenance Organizations - HMOs and Health Insuring Organizations - HIOs) often have plan carve-outs for selected services, such as prescription drugs. Also many other Medicaid eligible individuals are enrolled in Prepaid Health Plans - PHPs which cover a limited array of services, such as behavioral health, dental or other services. The record of services provided through fee-for-service providers should be reasonably complete for prepaid plan enrollees. However, the same is not necessarily true for service utilization data provided under prepaid managed care plans and represented by encounter records in each of the four MAX claims files. Although the completeness and quality of reporting of encounter records for these eligible individuals has varied substantially across states and years, it has been improving. Under a previous MAX contract, we provided technical assistance to a number of states to help them improve encounter data reporting in MSIS. Information about that work and related reports can be found [here](#). In addition, several useful reports and issue briefs that analyze the completeness and accuracy of encounter reporting in MSIS are available [here](#). Users should note that these same limitations do not apply for eligible individuals receiving care from Primary Care Case Management (PCCM) plans because care delivered to persons in these plans is usually reimbursed through fee-for-service systems.

FAQ 2457 (Updated 08/04/15)

In reposting FAQ2457, there are two instances where there should be links to specific MAX pages, designated by [here](#) (underlined):

Instance 1 should link to: <http://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidDataSourcesGenInfo/TechnicalAssistance.html>

Instance 2 should link to: <http://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidDataSourcesGenInfo/MedicaidIssueBriefs.html>

How is it possible to identify specific groups of Medicaid enrollees that have been mapped into each of the code values for the Medicaid Analytic eXtract (MAX) Eligibility Groups?

The MAX Eligibility Group codes are reported in data elements #30 and #40 in the MAX 2005-2009 Person Summary File and in data elements #21 and #34 in the MAX 1999-2004 Person Summary File. The MAX Eligibility Group combines MSIS data elements – Maintenance Assistance Status (MAS) and Basis of Eligibility (BOE). The MSIS Tape Specifications and Data Dictionary provide detailed information on specific groups of eligibles that are mapped into the MSIS MAS and BOE codes. These specifications are available on the CMS external web site at address: <http://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MSIS/Downloads/msisdd2010.pdf>. Users should consult Attachment 3- Comprehensive Eligibility Crosswalk.

FAQ2921 (Updated 08/04/2015)

In MAX, is it possible to determine if an enrollee resided in a long-term care facility for an entire calendar year?

There is no foolproof way to determine that a person was or was not institutionalized in a nursing facility, intermediate care facility for the intellectually disabled, inpatient psychiatric hospital for age under 21 or a mental hospital for the aged for the entire year, quarter or month in Medicaid. First, it is not possible using the MAX Person Summary File, which includes only a count of days for each of several institutional indicators (e.g. Data Elements 71-75 in the MAX 2012 PSF Data Dictionary):

- Mental hospital covered days
- Inpatient psych (age < 21) covered days
- ICF-IID covered days

- Nursing facility covered days
- Total LT covered days

It is important for data users to review the user notes for these data elements which state (and are amplified here):

Days may be > 365 for some states and some long-term care facilities. This can happen if the number of covered days for a given month was reported on multiple claims (e.g. a claim for per diem - room and board) payment and a claim for supplemental services payment (e.g. special nutritional services or staff-provided therapy). It is not possible to separately identify per diem claims versus supplemental claims. In creating person summary statistics for each enrollee, we add covered days for multiple claims during the month. For example, a per diem claim for John Doe may span April 10 to April 30 and a supplemental services claim for special nutrition may cover April 14 to April 30. In this example, the total covered days would be 38 for April, but John may not have been institutionalized for all of April. This same pattern could occur for multiple months during a year. So, if days are > 365 , this should alert a data user of the potential over-reporting of the number of covered days. When days are > 365 the user may want to examine long-term (LT) claims records by month to determine a more accurate number of days. Days are set with value ≤ 998 .

Data users could examine several data elements in the LT claims file to develop a definition of institutional status that meets their analytic needs:

- Beginning date of service (data element #39)
- Ending date of service (data element #40)
- Various day counts (data elements #42-46)

Examples of definitions could be built around the dates of services (e.g. starting on the first day of the month and ending on the last day of the month) or using the day counts when the count for any claim in the month is \geq the number of days in the month.

Then, the definition by month could be used to determine status for all twelve months of the year.

However, there are some instances where an enrollee may be fully institutionalized, but day counts are less than the number of days in a month:

- A person is institutionalized during earlier months in a year, but is spending-down private assets or has long-term care insurance and becomes enrolled in Medicaid later in the year
- An enrollee has one or more stays in an inpatient hospital facility during the year and their Medicaid nursing facility bed is not held
- An enrollee is dually enrolled in Medicare and has one or more Medicare-covered hospital stays followed by Medicare-paid Skilled Nursing Facility (SNF) stays during the year
- An enrollee has leave days (e.g. goes home for the Christmas and New Year holiday) and leave days are not reported
- Other

Also, an enrollee may be covered for institutional long-term care services under a managed prepaid plan (about 22 states provide at least some long-term care services under managed prepaid plans) and the state has not submitted managed care encounter records. In this instance, we would not know that the enrollee is institutionalized.

The Community Long-Term Care (CLTC) data elements in the Person Summary File can be used to determine which categories of community based LTC services an enrollee may have received, but not institutional status. You could presume that the enrollee is not institutionalized in months when they received CLTC services, although an enrollee could change status mid-month.

FAQ11958 (Updated 08/04/2015)

Which states have chosen the Medically Needy and related spenddown provisions and other general options as part of their state Medicaid plan?

It is important for data users to understand eligibility options that states have chosen for their individual Medicaid programs. These options affect the size, composition (by aged and other demographic factors), income levels, health status, care needs and utilization levels of the enrolled population, as well as overall expenditures, per enrollee expenditures, per user

expenditures and utilization and expenditures within subgroups of the enrolled population. Information on medically needy and related spenddown provisions, along with other eligibility options, is available in each of the annual MAX Eligibility Anomalies reports, which are available in the ‘downloads’ section of the MAX General Information web page at:

<http://www.cms.gov/Research-Statistics-Data-and-Systems/Computer-Data-and-Systems/MedicaidDataSourcesGenInfo/MAXGeneralInformation.html>.

The MAX Eligibility Anomalies reports can be accessed by opening the zipped file ‘MAX Data [YEAR] General Information’, opening the file

‘ELIGIBILITY_ANOMALY_TABLES_MAX_[YEAR]’ and going to Table 6 (2007-2009) or Table 7 (2010 and later) ‘Other Key Medicaid Eligibility Provisions Related to Uniform Eligibility Group (UEG) Reporting in MAX [YEAR]’. This table provides information on program options selected by each state that might be helpful to researchers trying to understand enrollment in state Medicaid programs. These options include:

- Medicaid Eligibility under Supplemental Security Income (SSI) provisions. There are three options with regard to Medicaid eligibility for SSI cash recipients. Under Section 1634 a state might automatically enroll SSI cash recipients in Medicaid (option 1), or the state might require them to submit a separate application for Medicaid eligibility (option 2). States may also under Section 209(b) choose different and generally more restrictive criteria for enrollment of SSI cash recipients in Medicaid than are applied within the SSI program for cash payments (option 3). Under options 2 and 3, not all SSI cash recipients may become enrolled in Medicaid, so counts of SSI cash recipients reported by SSA may be somewhat higher than counts of SSI cash recipients (MASBOE 11-12) reported by Medicaid for states choosing options 2 and 3.
- State-administered SSI supplemental payments - In most states, SSI recipients receive an additional payment from their state, providing them with a total monthly SSI payment that is higher than the federal SSI payment amount. Most states pay a state-administered SSI supplemental payment to their disabled residents who receive federal SSI cash payments. Each state determines the amount of its supplemental payment and who is entitled to receive it. The amount of the state supplement ranges across the states and often varies for single versus married residents and whether the resident lives in a nursing home, assisted living, or independently. We provide information on state-administered

SSI supplemental payments as a context for researchers who may compare SSI enrollment in MSIS (MASBOE 11-12) to SSI enrollment reported by SSA. Individuals receiving SSI supplemental payments may be counted as cash/SSI recipients in MSIS, but not necessarily by SSA which can result in different counts from the two sources.

- Medically Needy Provisions - If a state chooses the medically needy option it expands eligibility in Medicaid to 133 1/3 percent of the applicable cash standard – generally known as the medically needy income limit. Individuals with incomes below this limit become eligible for Medicaid. Also, if the state chooses to offer the medically needy option, it must also offer spenddown to the medically needy income limit. This means that if income minus medical bills incurred in a month bring an individual below the medically needy income limit, they become eligible for Medicaid.
- States have the option to extend full Medicaid benefits to aged and disabled persons (including nonduals) whose income does not exceed the Federal Poverty Limit (FPL). If a state has implemented an expansion for the aged and disabled, the percent (%) of FPL used for the expansion is noted.
- Special income standard at up to 300 percent of the SSI level for individuals in nursing facilities and other institutions.

Information about spending and enrollment for Medically Needy programs can be found [here](#).

FAQ 12512 (New 08/04/15)

There is an instance above in FAQ 12512 where there should be links to specific web pages, designated by [here](#) (underlined):

It should link to: <https://kaiserfamilyfoundation.files.wordpress.com/2013/01/4096.pdf>

For individuals who are dually enrolled in Medicare and Medicaid and Medicare is the first payer, what is the responsibility of Medicaid programs to pay copayment and deductible amounts?

Medicaid is generally known as the ‘last’ payer. So, if the individual has any other coverage, such as private employer-sponsored coverage, Federal Employee Health Benefits (FEHB),

Veteran's benefits, TRICARE, workman's compensation or any other type of coverage, those insurers must pay prior to Medicaid. Then, Medicaid will pay any remaining copayment or deductible amounts for services covered by the state plan, in that state, but only up to the limit of coverage for that service established by the state. For example, if a physician bills Medicare \$80 for an office visit for a person with only Medicare and Medicaid coverage and the annual deductible limit has been met, Medicare will reimburse 80% of that amount or \$64. If the Medicaid payment schedule for that office visit is \$56, the state is not required to pay because the Medicare reimbursement already exceeds the Medicaid schedule amount. Some states will pay the \$8 difference while others may not. In contrast, if the Medicaid payment schedule for that office visit is \$70, then Medicaid would be required to pay the difference between the Medicare amount and the Medicaid schedule amount, or \$6.

FAQ 12514 (New 08/04/15)

Where can I find information on the details of service coverage, by state, for mandatory and optional Medicaid services?

The Kaiser Family Foundation's State Health Facts website (Go to: <http://www.kff.org/statedata/>, and search on 'Medicaid Services') has a wealth of information on coverage details for mandatory and optional Medicaid services:

- Dental
- Podiatrist
- Psychologist
- Ambulance
- Chiropractor
- Optometrist
- Physician
- Outpatient Hospital
- Personal Care

- Free Standing Birth Centers
- Occupational Therapy
- Physical Therapy
- Nurse Midwife
- Nurse Practitioner
- Diagnosis, Screening and Prevention
- Federally Qualified Health Centers
- Rural Health Clinics
- Home and Community-Based Waivers
- Private Duty Nursing
- Non-Emergency Medical Transportation
- Speech, Hearing and Language Disorders
- Certified Registered Nurse Anesthetists
- Medical/Surgical Services of a Dentist
- Laboratory and X-Ray (outside a Hospital or Clinic)
- Inpatient Hospital (Other than in an Institution for Mental Diseases)
- Rehabilitation for Mental Health and Substance Abuse
- Inpatient Psychiatric Services, under Age 21
- Intermediate Care Facilities for Individuals with Intellectual Disabilities
- Nursing Facilities (Other than in an Institution for Mental Diseases)
- Religious Non-Medical Health Care Institutions and Practitioners
- Home Health (including Nursing Services, Home Health Aides and Medical Supplies/Equipment)
- Freestanding Ambulatory Surgery Centers (Clinic Services by an Organized Facility or Clinic not Part of a Hospital)
- Public Health and Mental Health Clinics (Clinic Services by an Organized Facility or Clinic not Part of a Hospital)
- Inpatient and Nursing Facility Services in Institutions for Mental Disease, Age 65 and Over

For some of these services, detail is also available for prior years: 2010, 2008, 2006, 2004 and 2003. Where possible, choose the appropriate year from this list in the 'timeframe' box.

FAQ 12516 (Updated 8/31/15)