

MAX Data Zip File Supporting Documents

1. **SAS Load Statements** - For users of the Statistical Analysis System (SAS), we provide the SAS load statements that can be used for each MAX file.

2. **Data Dictionaries** – We include the data dictionaries for the Inpatient Hospital (IP), Long-Term Care (LT), Other Services (OT), Prescription Drug (RX), and Person Summary (PS) MAX files. From 1999-2004, the data dictionaries did not change. Beginning in 2005, however, the record lengths, variable locations, and data element descriptions changed from year to year. We listed the changes at the beginning of each data dictionary.

Due to issues with the availability of the Social Security Administration (SSA) Death Master File (DMF), the Centers for Medicare and Medicaid Services (CMS) removed the SSA Date of Death from external Medicaid Analytic eXtract (MAX) files (1999-forward) in April 2014. Date of death is still reported in the MAX Personal Summary (PS) file using the Medicaid Statistical Information System (MSIS) Date of Death and Medicare Enrollment Database (EDB) Date of Death. Researchers interested in receiving death record information from state vital statistics offices should contact the National Center for Health Statistics (NCHS) to learn about the National Death Index.

3. **Variable Crosswalk** – Over time, data elements have been added or removed from the MAX files. We recommend that you review the variable crosswalk to get a better understanding of when the changes occurred.

4. **Record Counts** – We include a table showing the number of records in each MAX file. We recommend that you use this table to confirm that you received the correct number of records in your files.

5. **Data Anomalies Reports and Tables** – We review the validation tables (described below) looking for outliers and unexpected changes. We record salient anomalies about the eligibility and the claims data in the data anomalies reports and tables. We recommend that you read the anomalies to determine if the data should be included in your analysis.

6. **Waiver Crosswalk** – Beginning in MAX 2005, we created the waiver crosswalk, which describes each state's Section 1915(b) managed care/freedom of choice waiver, Section 1915(c) Home and Community-Based Services (HCBS) waiver, Section 1915(b)(c) managed

care HCBS waiver, Section 1115 demonstration waiver, and Health Insurance Flexibility and Accountability (HIFA) waiver. For each waiver, we identify the waiver type, waiver identification number in MAX, waiver name from both CMS's and the state's perspective, original CMS approval date, most recent CMS renewal date, expiration date, and whether reporting of the waiver is still ongoing in MAX data. This crosswalk is invaluable to researchers wanting to understand the various waiver authorities active in the state and whom the authorities serve.

7. Managed Care Crosswalk – Beginning in MAX 2009, we created the managed care crosswalk, which identifies each state's managed care plan identification number, plan name, plan type (comprehensive care or prepaid health plan), and whether the plan reported enrollment, capitation payments, and managed care encounter records (claim-like records for managed care services). This crosswalk is invaluable to researchers wanting to understand more about managed care plans and the completeness of their data.

8. HCBS Taxonomy – As states have sought to make home- and community-based services (HCBS) more accessible, researchers have become more interested in understanding service use by, and spending for, those Medicaid beneficiaries who need long-term services and supports (LTSS). Because state Medicaid programs differ in the types of services they offer, and in how they report these services in their data, analyzing HCBS at the national level has been challenging. To enable CMS to monitor the wide range of Section 1915(c) HCBS waiver services and to help researchers approach the study and analysis of waivers in a uniform manner, Truven Health Analytics, formerly known as Thomson Reuters, led the development of an HCBS waiver services taxonomy. The first version of the taxonomy was constructed from literature reviews, expert interviews, and an analysis of service definition information provided by 176 HCBS waivers and nine demonstration grants for community alternatives to Psychiatric Residential Treatment Facilities. This draft taxonomy was tested by a working group of state associations and staff from 10 states and one Area Agency on Aging. Mathematica then conducted a pilot test in which the taxonomy was applied to 2008 MSIS HCBS waiver claims. Through these tests, Mathematica and Truven worked jointly to refine the taxonomy into its current version. The taxonomy includes 18 categories and over 60 services.

9. HCBS Taxonomy Crosswalk – Beginning in MAX 2010, we created the HCBS taxonomy crosswalk, which maps Section 1915 (c) waiver services (program type = 6, 7) in the MAX OT file into the HCBS taxonomy. The crosswalk uses national Healthcare Common Procedure Coding System (HCPCS) procedure codes, Current Procedural Terminology (CPT) procedure codes, state-specific procedure codes, procedure code modifiers, place-of-service codes, and

type-of-service codes to map the services into the new OT data element called HCBS Taxonomy Code for Waivers. The first two characters of the data element correspond to the 18 taxonomy categories and the full five characters uniquely identify each taxonomy service.

10. Validation Specifications (for the Validation Reports) – The validation tables (described below) contain many measures that researchers could find useful for their analysis. In the validation specification document, we defined how each measure in the validation table was created. We recommend that you use this document to better understand the subpopulation and the data element(s) used in the construction of each measure.

11. MAX Validation Reports/Tables - These reports/tables are prepared for each of the 50 states and the District of Columbia. The reports/tables provide a lot of statistics on the data contained in the MAX files, including enrollment, utilization and Medicaid payments. Due to the volume of these reports/tables, they are available through the [MAX Validation Reports/Tables](#) page.