



Mathematica
Progress Together

REPORT

Medicaid Analytic Extract HCBS Taxonomy Crosswalks Introduction, 2014

October 28, 2019

Submitted to:

Centers for Medicare & Medicaid Services
7500 Security Blvd.
Mail Stop B2-29-04
Baltimore, MD 21244-1850
Project Officer: Cara Petroski

Submitted by:

Mathematica
1100 1st Street, NE
12th Floor
Washington, DC 20002-4221
Project Director: Susan Williams
Reference Number: 50160.210
Contract Number: HHSM-500-2014-00034I
Task Order: HHSM-500-T0007

This page has been left blank for double-sided copying.

MEDICAID ANALYTIC EXTRACT HCBS TAXONOMY CROSSWALK, 2014

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. Information available through claims data is not always useful for researchers. When states report services provided under Section 1915(c) waivers (that is, HCBS waivers) to the Medicaid Statistical Information System (MSIS), they often use nonspecific type-of-service codes; for example, rather than specifying “private duty nursing” or “personal care,” they label many services as “other services” (code 19). Further complicating analysis is the fact that states choose the procedure codes used to report each service, and may also create unique state-specific codes. Moreover, states that use national standard codes do not always apply them as the standard was intended.

To enable the Centers for Medicare & Medicaid Services (CMS) to monitor the wide range of waivers and waiver services used by states, 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 a waiver taxonomy. The first version of the taxonomy was constructed from literature reviews, expert interviews, and an analysis of service definition information provided by 176 home and community-based 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, piloted by staff from 10 states and one Area Agency on Aging, and reviewed using the procedure codes reported to MSIS in 2008 claim file submissions. A team from Mathematica conducted the MSIS pilot test by applying taxonomy categories to Medicaid claims data and providing feedback to Truven; Mathematica and Truven then submitted a joint revised version of the taxonomy to CMS. Applying the taxonomy to procedure codes, including state-specific procedure codes, gives researchers a consistent system for categorizing waiver claims and understanding services offered where descriptions are not always available. Today, the taxonomy applies to services covered under Section 1915(c) waivers, as well as to the State Plan HCBS benefits authorized by Section 1915(i).

As part of the pilot, an initial HCBS crosswalk was developed to show the relationship between information on claims and the taxonomy of services developed by Truven, for waiver services. The crosswalk mapped national Healthcare Common Procedure Coding System (HCPCS) procedure codes, Current Procedural Terminology (CPT) procedure codes, and state-specific procedure codes to HCBS taxonomy variables. Procedure code modifiers, place-of-service codes, and MSIS and Medicaid Analytic eXtract (MAX) type-of-service codes were also taken into account to further clarify which services were provided in the claims. During the pilot, Mathematica staff also consulted with state staff to gather additional information on the definition of procedure codes that represented a substantial percentage of waiver expenditures. As we updated and revised our crosswalk for MAX 2014, we consulted this documentation from state contacts, sought additional information from states, and searched Internet sources for more information. The taxonomy category and service were applied only to MAX claims data for 1915(c) waiver services. 1915(c) waiver services were identified as claims having a program type equal to 6 (“Home and Community Based Care for Disabled Elderly and Individuals Age 65 and Older”) or 7 (Home and Community Based Care Waiver Services). The crosswalk mapping was applied through an automated program, and the results were reviewed again for quality assurance.

For the MAX 2014 “Other Services (OT)” file, the crosswalk mapping was applied in the following order:

1. **State-Specific** crosswalks are applied first. This ensures the more detailed information obtained from states is accurately mapped, before general national rules are applied by procedure codes. The state-specific crosswalks do not include states that utilize only national

codes or states left out of MAX 2014 due to lags in their MSIS files submissions. After state-specific crosswalks are applied, national procedure codes are mapped to a taxonomy service.

2. The **Case Management Procedure Codes** crosswalk maps all national HCPCS and CPT case management procedure codes to the HCBS taxonomy service and category “case management,” because this is the first service listed in the taxonomy.
3. The **Modifiers and Type-of-Service** crosswalk assigns a taxonomy service to all unmapped procedure codes with one of the listed specific modifiers. For example, any procedure code with the modifier “GO,” which represents “services delivered under an outpatient occupational therapy plan of care,” will be mapped to the HCBS taxonomy service “occupational therapy.”
4. The **National Procedure Codes, Modifiers, Type-of-Service, and Place-of-Service** crosswalk assigns taxonomy services for specific combinations of national procedure codes and modifiers, type-of-service codes, or place-of-service codes. For example, the combination of national procedure code S5150 (“unskilled respite care, not hospice; per 15 minutes”) with the place-of-service code 12 (home) is mapped to the taxonomy service “respite, in-home.”
5. Next, the **National Codes** crosswalk is applied to the remaining unassigned national HCPCS and CPT codes. The remaining claims for S5150, for example, will be mapped to “respite, unspecified,” since their combination of place-of-service and procedure codes did not previously result in a mapping.
6. The **National Code Groups** crosswalk then maps groups of national codes; for example, all HCPCS codes D0000 to D9999 are mapped to “dental services.” We created groups of codes (instead of listing all individual codes) in order to make the crosswalk easier to read. If a procedure code is not included in the crosswalk and does not get a taxonomy service and category applied to the claim, it will be mapped to an unassigned category and service (99999).

As CMS implements the HCBS taxonomy in other Medicaid systems, we expect to see improved reporting and increased standardization across states. Once the HCBS taxonomy is implemented in the Transformed Medicaid Statistical Information System (T-MSIS)—an expansion of MSIS—states will assign services to the taxonomy categories. This process will eliminate the need for the MAX HCBS taxonomy crosswalk. We expect the implementation of the taxonomy in T-MSIS to result in more reliable information, since state staff are more familiar with the types of services offered and how they are reported. The current HCBS taxonomy crosswalk is based almost exclusively on the minimal information available through claims data, which are often incomplete. Outside of claims data, the taxonomy seeks to facilitate a common language across other Medicaid business operations, including the electronic system for 1915(c) waiver applications and waiver expenditure reports.

This page has been left blank for double-sided copying.

Mathematica

Princeton, NJ • Ann Arbor, MI • Cambridge, MA
Chicago, IL • Oakland, CA • Seattle, WA
Tucson, AZ • Woodlawn, MD • Washington, DC

EDI Global, a Mathematica Company

Bukoba, Tanzania • High Wycombe, United Kingdom



Mathematica
Progress Together

mathematica-mpr.com