Utah Department of Health & Human Services

Utah All Payer Claims Database (APCD) data user manual

January 2024

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Revision history

Date	Description	Author(s)
January 2020	Initial draft	Petersen & Scott
February 2021	Minor edits	Petersen
March 2022	Introduction sections added and edits to available data section	Scott
January 2024	Introduction (Health Data Committee) section edits and lookup tables edits to be aligned with the DSG 4.1 changes	Qing

Introduction

The Utah Health Data Committee (HDC) is composed of 15 members appointed by the governor. The HDC was created in 1990 by § 26-33a, (re-codified to Title 26B, Chapter 8, Part 5 as of 5/3/23) Utah Health Data Authority Act. The committee is currently staffed by the Utah Department of Health and Human Services Office of Health Care Statistics Program (OHCS) which manages the Utah All Payer Claims Database (APCD).

Utah Administrative Rule (R428-2 and R428-15) requires all Utah carriers that cover 2,500 or more (20,000 or more for stand-alone dental carriers) Utah residents to submit information to the Utah APCD. Four different file types are submitted: eligibility, medical, pharmacy, and provider. These files contain information on patient demographics and eligibility, services or medications received, financial elements, diagnoses and claim specific elements, and provider information.

Data submissions by the carriers are based on claim adjudication dates. As such, the database is constantly updated as new claims are adjudicated and submitted to the Utah APCD. Data accuracy relies on the completeness of the claims submitted. Continuous efforts are made to further data completeness and accuracy.

You may obtain information on how to submit a data request and view associated pricing from the OHCS website at: https://stats.health.utah.gov/about-the-data/data-series/. Make sure that all required fields and documents are submitted to ensure timely processing of the data request. Additional information regarding the APCD is available on the OHCS website at: https://stats.health.utah.gov/about/frequently-asked-questions/. Additional inquiries can be submitted to healthcarestat@utah.gov.

Data processing and quality

Data submission

The DHHS OHCS maintains and publishes the Utah Healthcare APCD data submission guide on its website. Data suppliers submit all files using specifications in the data submission guide.

System edits

The data are validated through a process of automated editing and report verification. Each record is subjected to a series of edits that check for validity, consistency, completeness, and conformity with the definitions specified in the Utah Healthcare APCD data submission guide. Files that fail edit checks are required to provide justification or be resubmitted by the data supplier for correction.

Missing values

When dealing with unknown values, it is important to distinguish between systematic omission by the data supplier (for payers that were granted reporting exemption for particular data elements or which had systematic coding problems that deemed the entire data from the payer unusable) and non-systematic omission (random coding errors, invalid codes, etc.). While systematic omission creates potential bias, non-systematic omission is assumed to occur randomly. The user is advised to conduct a thorough analysis of any data sets received to ensure completeness and usability of the data.

Patient confidentiality

The committee has taken steps to make sure that no individual patient can be identified from the limited use data sets. Patient's age, physician specialty, and payers are grouped. Data requests for Medicaid data must be approved by both OHCS and Medicaid. Data requests for CMS Medicare data go through a separate approval process.

Citation

Any statistical reporting or analysis based on the data shall cite the source as the following:

Utah All Payer Claims Database. Utah Health Data Committee Office of Health Care Statistic Program. Utah Department of Health and Human Services. Salt Lake City, Utah, 2012-2023.

Available data

There are 3 basic tables in the Utah APCD:

- DIM_MEMBER—contains basic, unchanging member demographic information;
- FACT_MEMBER_MONTHS—contains basic insurance plan information at the month level; and
- FACT_SERVICES—contains basic claims information at the claim-line level.

The basic connection between the 3 tables is the MEMBER_KEY_HASHED.

DIM_MEMBER

Member-level variables.

Variable name	Description
MEMBER_KEY_HASHED	Unique OHCS created member ID
MI_PERSON_KEY_HASHED	Unique longitudinal person identifier
MEM_GENDER	Member gender M—Male F—Female U—Unknown
MEM_RACE	Member race. See [Lookup Table B-1.D](#b-1d-race-codes)
MEM_ETHNICITY	Member ethnicity. See [Lookup Table B-1.E](#b-1e-ethnicity-codes)
MEM_DOB	Member date of birth
MEM_DOB_YEAR	Member year of birth
MEM_START_DATE	Member start date
MEM_START_YEAR	Member start year
MEM_END_DATE	Member end date
MEM_END_YEAR	Member end year
MEM_CITY	Member city
MEM_COUNTY	Member county
MEM_STATE	Member state

Variable name	Description
MEM_ZIP	Member ZIP code
CMS_MEDICARE_FLAG	Flag identifying Medicare (Parts A, B, & D) data (additional approval needed) 0—Non CMS Medicare member 1—CMS Medicare member
MEDICAID_FLAG	Flag identifying Medicaid data (additional approval needed) 0—Non Medicaid member 1—Medicaid member (FFS or ACO)

FACT_MEMBER_MONTHS

Member-month level variables.

Variable name	Description
MEMBER_KEY_HASHED	Unique OHCS created member ID
MEMBER_MONTH_START_DATE	Member month start date
FIRST_DAY_ELIGIBLE	First day eligible
LAST_DAY_ELIGIBLE	Last day eligible
QTY_MM_MD	Variable indicating member month medical eligibility
QTY_MM_RX	Variable indicating member month pharmacy eligibility
QTY_MM_DN	Variable indicating member month dental eligibility
PRIMARY_INSURANCE_INDICATOR	Primary insurance indicator Y—Yes, primary insurance N—No, secondary or tertiary insurance
INSURANCE_TYPE_CODE	Insurance type code. See [Lookup Table B-1.A](#b-1a-insurance-type)
COVERAGE_LEVEL	Coverage level. See [Lookup Table B-1.B](#b-1b-coverage-level-code)
COVERAGE_TYPE	Coverage type. See [Lookup Table B-1.M](#b-1m-coverage-type-code)
MEDICAL_COVERAGE	Y—Yes N—No

PRESCRIPTION_DRUG_COVERAGE	Y—Yes N—No
DENTAL_COVERAGE	Y—Yes N—No
PAYER_LOB	Payer line of business
RISK_BASIS	Risk basis S—Self-insured F—Fully insured
MARKET_CATEGORY_CODE	Market category. See [Lookup Table B-1.C](#b-1c-market-category-codes)
EXCHANGE_OFFERING	Identifies whether a policy was purchased through the Utah Health Benefits Exchange (UBHE). Y—Commercial small or non-group QHP purchased through the exchange N—Commercial small or non-group QHP purchased outside the exchange U—Not applicable (plan/product is not offered in the commercial small or non-group market)
GROUP_SIZE	Code indicating group size consistent with Utah Insurance law and regulation A—1 B—2 to 50 C—51 to 100 D—100+
HIGH_DEDUCTIBLE_HSA	Y—Plan is high deductible/HSA eligible N—Plan is not high deductible/HSA eligible
METALLIC_VALUE	Metal level (percentage of actuarial value) per federal regulations. See [Lookup Table B-1.N](#b-1n-metal-level-codes)
GROUP_NAME	Group name
RELATION_DET_DESC	Member relationship with the subscriber. Member's relationship to insured—payers map their available codes to those listed in [Lookup Table B-1.L](#b-1l-relationship-codes)

COUNTY	Member's residential county
SMALL_HEALTH_AREA	Small health area
STATE_HOUSE_DISTRICT	State House district
STATE_SENATE_DISTRICT	State Senate district
CMS_MEDICARE_FLAG	Flag identifying Medicare (Parts A, B, and D) data (additional approval needed) 0—Non-CMS Medicare member 1—CMS Medicare member
MEDICAID_FLAG	Flag identifying Medicaid data (additional approval needed) 0—Non-Medicaid member 1—Medicaid member (FFS or ACO)

FACT_SERVICES

Claim-level variables. Some of these variables are "normalized" into lookup tables for storage efficiency purposes but are listed here for completeness.

Variable name	Description
MEMBER_KEY_HASHED	Unique OHCS created member ID
ADM_DATE_INT	Admission date (displayed as an integer)
ADM_DATE_YEAR	Admission year
DIS_DATE_INT	Discharge date (displayed as an integer)
DIS_DATE_YEAR	Discharge year
PAID_DATE_INT	Date paid (displayed as an integer)
PAID_DATE_YEAR	Year in which service rendered was paid/adjudicated
SERVICE_MONTH_START_DATE	Service month start date
SERVICE_START_YEAR	Year in which service rendered began
FROM_DATE_INT	First date of service for this service line (displayed as an integer)
FROM_YEAR	Year in which service rendered ended
TO_DATE	Last date of service for this service line
TO_DATE_YEAR	Year of last date of service for this service line
AMT_ALLOWED	Allowed/negotiated/contracted amount

Variable name	Description
AMT_BILLED	Charge/billed amount
AMT_COINS	The mutually exclusive coinsurance amount the member is liable for
AMT_COPAY	The fixed dollar amount for which the individual is responsible
AMT_DEDUCT	The amount the member is liable for that goes toward member's deductible
AMT_MEMBER	The amount of non-premium payments (coinsurance + copay + deductible)
AMT_PAID	Amount paid by the insurance plan
AMT_PREPAID	For capitated services, the fee for service equivalent amount
AMT_RX_DISP_FEE	The amount that the pharmacist charged to dispense the drug
CLAIM_PAID_STATUS	Claim paid status (primary, secondary, reversal, etc.). See [Lookup Table B-1.H](#b-1h-claim-status)
RATE_RX_INGR_COST	The cost of the ingredients contained in the drug
ADM_SRC	Admission source code defined by National Uniform Billing Committee
ADM_TYPE	Admission type code defined by National Uniform Billing Committee
CAPITATED_SERVICE_INDICATOR	Capitated service indicator Y—services are paid under a capitated arrangement N—services are not paid under a capitated arrangement U—unknown
CLAIM_ID_KEY	Milliman created claim ID
CLAIM_IN_NETWORK_NAME	Indicator flag specifying if the service is deemed "in network." (available 2020 & onward) N—No Y—Yes L—Leased network
DIS_STAT	Discharge status code. See [Lookup table B-1.F](#b-1f-discharge-status)

Variable name	Description
DRG_CODE	MS-DRG Code
DRG_TYPE	DRG type (Always MS-DRG)
FORM_TYPE	Identifies the type of claim (U—Facility, H—Professional, A—Dental, D—Pharmacy)
ICD_DIAG_01	ICD Diagnosis code 1
ICD_DIAG_01_TYPE	ICD Diagnosis code 1 type (ICD-9-CM or ICD-10-CM) 9—This claim contains ICD-9-CM codes 0—This claim contains ICD-10-CM and ICD-10-PCS codes
ICD_DIAG_02	"
ICD_DIAG_02_TYPE	"
ICD_DIAG_03	"
ICD_DIAG_03_TYPE	"
ICD_DIAG_04	"
ICD_DIAG_04_TYPE	"
ICD_DIAG_05	"
ICD_DIAG_05_TYPE	"
ICD_DIAG_06	"
ICD_DIAG_06_TYPE	"
ICD_DIAG_07	"
ICD_DIAG_07_TYPE	"
ICD_DIAG_08	"
ICD_DIAG_08_TYPE	"
ICD_DIAG_09	"
ICD_DIAG_09_TYPE	"
ICD_DIAG_10	"
ICD_DIAG_10_TYPE	"
ICD_PROC_01	ICD Procedure code 1
ICD_PROC_01_TYPE	ICD Procedure code 1 type (ICD-9-CM or ICD-10-PCS) 9—This claim contains ICD-9-CM codes 0—This claim contains ICD-10-CM and ICD-10-PCS codes
ICD_PROC_02	"
ICD_PROC_02_TYPE	"

Variable name	Description
ICD_PROC_03	"
ICD_PROC_03_TYPE	"
ICD_PROC_04	"
ICD_PROC_04_TYPE	"
MDC_CODE	Major diagnostic category.
PRESENT_ON_ADMISSION	See [Lookup Table B-1.I](#b-1i-present-on-admission-codes)
PROC_CODE	HCPCS/CPT Code
PROC_MOD1	HCPCS/CPT Code Modifier 1
PROC_MOD2	HCPCS/CPT Code Modifier 2
PROC_MOD3	HCPCS/CPT Code Modifier 3
PROC_MOD4	HCPCS/CPT Code Modifier 4
REV_CODE	Revenue code defined by National Uniform Billing Committee
SERVICE_LINE	Line number for this service. The line counter begins with 1 and is incremented by 1 for each additional service line of a claim
QTY_SVC_UNITS	Service units
UNIT_OF_MEASURE	Measurement unit DA—Days MJ—Minutes UN—Units other standard ANSI values may be used with prior approval from OHCS.
QTY_RX_DAYS_SUPPLY	The number of days the drug will last if taken at the prescribed dose
RX_COMPOUND_IND	Compound drug indicator N—Non-compound drug Y—Compound drug U—Non-specified drug compound
RX_DAW	Dispensed as written code. See [Lookup Table B-1.J](#b-1j-dispense-as-written-codes)
RX_NDC_CODE	National Drug Code

Variable name	Description
RX_NDC_PROD_NAME	The name of the drug associated with the unique product identifier for drugs
RX_REFILLS	Prescription refills is the count of times the prescription has been filled. See [Lookup Table B-1.O](#b-1o-rx-refills-codes)
RX_UNIT_OF_MEASURE	Pharmacy measurement unit. See [Lookup Table B-1.K](#b-1k-drug-unit-of-measure)
AREA_CAVITY	Area of Oral Cavity Code as maintained by the American Dental Association
TOOTH_NUMBER	Tooth number or letter identification
TOOTH_SURFACE	Tooth surface identification
INSURANCE_TYPE_CODE_CLAIM	Insurance product type code for a claim. See [Lookup Table B-1.A](#b-1a-insurance-type)
BILL_PROV_NPI	Billing provider NPI
BILL_PROV_ORG_NAME	Billing provider organization name (Linked from NPPES)
BILL_PROV_TAX	Billing provider primary taxonomy (Linked from NPPES)
PHARM_CITY	Pharmacy city
PHARM_STATE	Pharmacy state
PHARM_STREET_ADDR	Pharmacy street address
PHARM_ZIP	Pharmacy ZIP code
POS_LABEL	Place of service
SRVC_PROV_CITY	Service provider city
SRVC_PROV_STATE	Service provider state
SRVC_PROV_ZIP	Service provider ZIP code
UB_BILL_TYPE_CLASS	Classification of Bill Type Code. See [Lookup Table B-1.G](#b-1g-type-of-bill)
UB_BILL_TYPE_FACILITY_TYPE	Identifies the type of facility based on UB Bill Type Code Clinic Skilled nursing Intermediate care Hospital Religious non-medical health care institutions

Variable name	Description
	Special facility Home health
UB_BILL_LABEL	Bill type code as defined by National Uniform Billing Committee
CMS_MEDICARE_FLAG	Flag identifying Medicare (Parts A, B, and D) data (additional approval needed) 0—Non-CMS Medicare member 1—CMS Medicare member
MEDICAID_FLAG	Flag identifying Medicaid data (additional approval needed) 0—Non-Medicaid member 1—Medicaid member (FFS or ACO)
FINAL_STATE_FLAG	Final state flag (final version of claim line) 0—Not final state of claim line 1—Final state of claim line
KEEP_FLAG	Keep flag (indicates paid or reversed line) 0—Claim line should not be used for analysis 1—Claim line may be used for analysis

B-1 Lookup tables

B-1.A Insurance type

Code	Description
17	Dental
20	Dental Medicaid plan
CI	Commercial insurance company
DM	Dental maintenance prganization (DMO)
EP	Exclusive provider organization (EPO)
FH	Federal Employees Health Benefits Program (HMO)
FP	Federal Employees Health Benefits Program (PPO)
IN	Indemnity insurance
HM	Health maintenance organization (HMO)
HN	Health maintenance organization (HMO) Medicare Advantage/Medicare Part C
MA	Medicare Part A (not to be used for commercial plans)
MB	Medicare Part B (not to be used for commercial plans)
MC	Medicaid fee for service (FFS)
MD	Medicare Part D
MO	Medicaid accountable care organization (ACO)
MP	Medicare primary (not to be used for commercial plans)
MT	Medicaid Children's Health Insurance Program (CHIP)
OF	Other federal
PR	Preferred provider organization (PPO)
PS	Point of service (POS)
QM	Qualified Medicare Beneficiary (QMB)
SP	Medicare supplemental (Medi-gap) plan
TV	Title V I
ZZ	Mutually defined (Use code ZZ when type of insurance is unknown)

B-1.B Coverage level code

Code	Description
CHD	Children only

DEP	Dependents only
ECH	Subscriber and children/dependents
EMP	Subscriber only
ESP	Subscriber and spouse/life partner
FAM	Family
SPC	Spouse/life partner and children/dependents
SPO	Spouse/life partner only

B-1.C Market category codes

Code	Description
IND	Individuals (non-group)
FCH	Individuals on a franchise basis
GCV	Individuals as group conversion policies
GS1	Employers having exactly 1 employee
GS2	Employers having 2 through 9 employees
GS3	Employers having 10 through 25 employees
GS4	Employers having 26 through 50 employees
GLG1	Employers having 51 through 100 employees
GLG2	Employers having 101 through 250 employees
GLG3	Employers having 251 through 500 employees
GLG4	Employers having more than 500 employees
GSA	Small employers through a qualified association trust
OTH	Other types of entities (insurers using this market code shall obtain prior approval)

B-1.D Race codes

Code	Description
R1	American Indian/Alaska Native
R2	Asian
R3	Black/African American
R4	Native Hawaiian or other Pacific Islander
R5	White

R9	Other face
UNKNOW	Unknown/not specified

B-1.E Ethnicity codes

Code	Description
01	Patient is Hispanic/Latino/Spanish
02	Patient is not Hispanic/Latino/Spanish
03	Unknown

B-1.F Discharge status

Discharge status codes are defined and maintained by the National Uniform Billing Committee (NUBC).

B-1.G Type of bill

Type of bill codes are defined and maintained by the National Uniform Billing Committee (NUBC).

B-1.H Claim status

Code	Description
01	Processed as primary
02	Processed as secondary
03	Processed as tertiary
04	Denied
19	Processed as primary, forwarded to additional payer(s)
20	Processed as secondary, forwarded to additional payer(s)
21	Processed as tertiary, forwarded to additional payer(s)
22	Reversal of previous payment
23	Not our claim, forward to additional payer(s)
25	Predetermination pricing only—No payment

B-1.I Present on admission codes

Code	Description
Y	Yes
N	No
U	Unknown
W	Not applicable

B-1.J Dispense as written codes

Code	Description
0	Not dispensed as written
1	Physician dispensed as written
2	Member dispensed as written
3	Pharmacy dispensed as written
4	No generic available
5	Brand dispensed as generic
6	Override
7	Substitution not allowed—brand drug mandated by law
8	Substitution allowed—generic drug not available in marketplace
9	Other

B-1.K Drug unit of measure

Code	Description
EA	Each
F2	International units
GM	Grams
ML	Milliliters
MG	Milligrams
MEQ	Milliequivalent
MM	Millimeter
UG	Microgram
UU	Unit
OT	Other

B-1.L Relationship codes

Code	Description
01	Spouse
04	Grandfather or grandmother
05	Grandson or granddaughter
07	Nephew or niece
10	Foster child
15	Ward
17	Stepson or stepdaughter
18	Self
19	Child
20	Employee/self
21	Unknown
22	Handicapped dependent
23	Sponsored dependent
24	Dependent of a minor dependent
29	Significant other
32	Mother
33	Father
36	Emancipated minor
39	Organ donor
40	Cadaver donor
41	Injured plaintiff
43	Child where insured has no financial responsibility
53	Life partner
G8	Other relationship

B-1.M Coverage type codes

Code	Description
ASW	Self-funded plans administered by a TPA, where the employer has purchased stop-loss, or group excess insurance coverage
ASO	Self-funded plans administered by a TPA, where the employer has not purchased stop-loss, or group excess insurance coverage
STN	Short-term, non-renewable health insurance (COBRA)
UND	Plans underwritten by the insurer (fully insured group and individual policies)
MEW	Associations/trusts and Multiple Employer Welfare Arrangements (MEWA)
OTH	Any other plan (for example—student health plan) insurers using this code shall obtain prior approval

B-1.N Metal level codes

Code	Description
0	Not a QHP or catastrophic plan
1	Catastrophic
2	Bronze
3	Silver
4	Gold
5	Platinum
Blank	Not applicable

B-1.O Rx refills codes

Code	Description
00	New prescription
01 - 99	Refill