VERMONT BLUEPRINT FOR HEALTH EVALUATION METHODS

Supplement to the Vermont Blueprint for Health 2019 Annual Report

January 2020

VERMONT Blueprint for Health

ONPOINT Health Data

VERMONT DEPARTMENT OF VERMONT HEALTH ACCESS

BLUEPRINT FOR HEALTH YEAR-END EVALUATION METHODOLOGY FOR CALENDAR YEAR 2018 DATA

The purpose of this report is to provide documentation on the analytic methods used in the annual evaluation of the Vermont Blueprint for Health initiative. For the 2019 annual report to the Vermont General Assembly on the status of the Blueprint for Health program, the Blueprint team used a similar method to the 2018 annual report.

Current Blueprint Evaluation
As the Blueprint program expanded to incorporate the majority of primary care practices in the state, the potential pool of members for a comparison group declined. Therefore, the current evaluation design moved away from a difference-in-difference by stage of program approach to a descriptive statistics review of outcomes over a series of cross-sectional snapshots between 2008 and 2018. Additionally, the evaluation expanded to include almost all members represented in the all-payer claims database, stratified in different ways, including by primary care attribution. Specifically, the three groups included those attributed to Blueprint Patient-Centered Medical Homes (PCMHs), those attributed to other primary care settings, and everyone else (meaning those who did not have claims data indicating they received primary care services). In summary, the 2019 Annual Report evaluation section includes:

- Eleven years (2008-2018) of all-payer data including commercial, Medicaid, Medicare; however, most analyses focus on the years 2013 to 2018 since 2013 was the year the Blueprint attributed population and practice count began to slow in their growth.
- Serial, cross-sectional study design.
- Blueprint PCMH providers identified by practice rosters supplied by Blueprint.
- Consistent member attribution-to-practice methodology applied by Onpoint.
- Analysis of the full population as available in Vermont Health Care Uniform Reporting and Evaluation System (VHCURES), with exclusions identified below.
- Reporting by three primary care sub-populations: 1) members with Blueprint primary care attribution, 2) members with non-Blueprint primary care attribution, and 3) members with no primary care attribution.
- Exclusion of plans subject to ERISA to adjust for data loss resulting from the 2016 Supreme Court decision *Gobeille vs Liberty Mutual Insurance Company.*
- Risk-adjusted rates to control differences between primary care attribution groups, age, gender, payer, and health status.

These methods and the evaluation design were developed by Onpoint and Blueprint staff over time. This ongoing evolution will continue to align with the dynamic nature of the program, Vermont's health care system, and available data sources.

BLUEPRINT MEMBER YEAR SELECTION

The Blueprint analytic dataset was developed from eligibility member month records submitted by payers and processed in VHCURES. Members were assigned by year to primary payers according to the most recent record within the measurement year. Other selections and exclusions are made and used in virtually all Blueprint reporting and analyses to ensure consistency in membership.

Members excluded due to incomplete enrollment data include:

- Members with no medical eligibility coverage (e.g., pharmacy coverage only).
- A member with a commercial payer as primary insurer age 65 or more (likely missing Medicare Part A data for the member)
- A member with Medicaid as primary insurer age 65 or more
- A member with Medicare supplemental as primary insurer
- A member with behavioral health carve-outs (e.g., CIGNA or United Behavioral Health) as primary insurer

A member less than one year of age is also excluded due to unusual costs and claims often being bundled with the mother's claims.

ATTRIBUTION TO PRIMARY CARE

Once the member dataset (organized by year and payer) is developed, Onpoint runs a standard primary care attribution process on VHCURES data to assign each member to a primary care provider for each calendar year. The attribution algorithm is based on the Center for Medicare and Medicaid Services (CMS) list of Evaluation and Management (E&M) codes, incorporates the Blueprint-supplied PCMH roster information, and assigns members based on the plurality of their visits.

Blueprint PCMHs are identified in the Blueprint roster by the calendar year in which the practice was scored and recognized by the National Committee for Quality Assurance (NCQA). Each Blueprint practice has a VT number (e.g., VT001, VT002). Since no statewide provider roster for all primary care practices exists in Vermont, members not attributed to a Blueprint PCMH are identified using the same process and E&M codes for visits to providers with a primary care specialty (e.g., general practice, pediatrics, family practice, internal medicine, etc.). The generic practice "code" for these non-Blueprint attributed members is "VT999". More information on this process is available in the document entitled, "*Blueprint Primary Care Practice Attribution"* found on the Blueprint website under "Implementation Materials". Members without the relevant E&M codes are categorized as "no attribution to primary care".

CALENDAR YEAR PARTICIPANTS, COMPARISONS, & EXCLUSIONS

Upon member attribution to a primary care provider, additional exclusions are made to member records for the following reasons:

A. The member was attributed to an organization, but the member's Blueprint practice could not be determined due to limitations in the payer-submitted data. This is a relatively small percentage of members and they are excluded from this, and other, Blueprint reports
B. The member's primary payer was a self-insured plan subject to ERISA, except for BCBSVT, who has been providing voluntary submissions of self-insured data.

The table below provides a calendar year summary of members for Blueprint practice attribution, other primary care attribution, and no primary care attribution groups. It is important to understand these results in the context of the Blueprint program evolution. In the initial years, Blueprint consisted of only six practices and you'll note a significant increase in practices during 2011 and 2012.

Table 1. Distinct member counts by Primary Care Attribution Status, Ages 1+

CALENDAR YEAR	BLUEPRINT-ATTRIBUTED	NON-BLUEPRINT ATTRIBUTED	NO PRIMARY CARE ATTRIBUTION
2008	14,881	323,825	85,311
2009	16,220	352,716	67,072
2010	37,453	336,529	60,436
2011	182,455	193,229	56,539
2012	223,830	148,076	53,827
2013	273,044	110,196	53,588
2014	287,645	118,630	55,129
2015	302,613	112,741	56,052
2016	308,754	112,245	55,706
2017	307,254	103,156	50,111
2018	303,984	106,079	51,833

In order to report results for the opioid use disorder (OUD) treatment groups, the logic first identified those with indications of two OUD diagnoses in the last two years. This group was further divided into those who received medication assisted treatment (MAT) in the past year (the OUD-MAT group) and those who received other substance use disorder treatment services exclusive of MAT (the OUD-Other Treatment group). Detailed description of the selection and categorization criteria list listed in Appendix I.

HEALTH STATUS CATEGORIZATION

Clinical Risk Groups (CRGs) were applied to the VHCURES claims data to determine each member's health status. CRGs are a product of 3M™ Health Information Systems and are used throughout the United States as a method of risk-adjusting populations. The 9 major categories are given below in Table 2. The categories are further grouped in the Blueprint Annual Report and for regression analyses into the five categories listed in column labeled, "Aggregation for Regression Model".

Table 2. CRG Major Health Status Categories

CRG FIRST DIGIT	CRG MAJOR HEALTH STATUS CATEGORIES	EXAMPLES	AGGREGATION FOR REGRESSION MODEL
1	HEALTHY	N/A	Reference Group
2	HISTORY OF SIGNIFICANT ACUTE DISEASE	Acute ear, nose, or throat illness	Acute or Minor Chronic
3	SINGLE MINOR CHRONIC DISEASE	Minor chronic joint	Acute or Minor Chronic
4	MINOR CHRONIC DISEASE IN MULTIPLE ORGAN SYSTEMS	Minor chronic joint and migraine	Moderate Chronic
5	SINGLE DOMINANT OR MODERATE CHRONIC DISEASE	Diabetes	Moderate Chronic
6	Significant chronic disease in multiple organ systems	Diabetes and hypertension	Significant Chronic
7	Dominant chronic disease in 3 or more organ systems	CHF, diabetes, and COPD	Significant Chronic
8	Dominant, metastatic, and complicated malignancies	Malignant breast cancer	Cancer or Catastrophic
9	Catastrophic conditions	HIV, cystic fibrosis, muscular dystrophy, quadriplegia	Cancer or Catastrophic

REPORTING

Onpoint reported the following analysis categories for the full population available in VHCURES, except with above listed exceptions, by primary care attribution groups, by payer type, for women age 15-44, and for Medicaid members categorized as having an OUD and receiving treatment. Reporting categories included:

- Demographics
- Utilization (crude and risk adjusted)
- Total Care Relative Resource Value™ (TCRRV) (crude and risk adjusted)
- Quality (crude)
- Expenditures (crude and risk adjusted)

Results were delivered to Blueprint in an iterative manner via Sharepoint.

ADJUSTING EXPENDITURES FOR INFLATION

Expenditure measures were adjusted for inflation. Using the St. Louis Fed's (https://fred.stlouisfed.org) GDP implicit price deflator, inflation factors are calculated for each calendar year, indexed so that the factor for 2018 is 1. Within each year, all expenditure measures are multiplied by that year's factor in order to create inflation-adjusted expenditures.

ACCOUNTING FOR ALTERNATIVE PAYMENTS

Blueprint investment payments

Blueprint PCMH, Community Health Team, Women's Health Initiative, and Spoke Staff payments were provided from the Blueprint team for inclusion in total and subcategory expenditure reporting. The Blueprint payments provided by the Blueprint team are listed below in Table 3. Each payment was assigned a population (e.g., commercial Blueprint population for the commercial PCMH investment). Table 3 lists the population for each investment payment.

The amount was applied for the given population in the given year proportionally by H.S.A. at the individual level. Table 3 lists the population for each investment payment. For example, if 30% of the commercial Blueprint population in 2018 resided in the Burlington H.S.A, then 30% of the Blueprint PCMH and CHT payments in 2018 were applied to members in the Burlington H.S.A.

Table 3. Blueprint investment payments and applied population

INVESTMENT PAYMENT	APPLIED POPULATION
All Comm. PCMH Annual	Commercial Blueprint attributed
All Comm. CHT Annual	Commercial Blueprint attributed
Medicaid PCMH Annual	Medicaid Blueprint attributed

INVESTMENT PAYMENT	APPLIED POPULATION
Medicaid CHT Annual	Medicaid Blueprint attributed
Blueprint Funding from ADAP for MH Specialist Annual	Medicaid Blueprint attributed
Medicaid Spoke Annual	Medicaid MAT analysis group, 18+
Medicaid WHI CHT Annual	Medicaid women 15-44
Medicaid WHI One-Time Annual	Medicaid women 15-44
WHI Spec. & PCMH Practice Payments	Medicaid women 15-44
Medicare PCMH Annual	Medicare Blueprint attributed
Medicare CHT Annual	Medicare Blueprint attributed
Medicare SASH Annual	Medicare full population

Reporting of Medicaid Next Generation Capitated Expenditures

A capitated payment reference file for Medicaid ACO members in 2017 and 2018 was provided from the Blueprint team. This file was linked to the VHCURES data using hashed and encrypted identifiers such as birth date, last name, first name, gender, and zip code.

The linkage uses various levels:
Level 1. Last name, first name, dob, zip, gender
Level 2. Last name, first name, dob
Level 3. Last name, gender, DOB
Level 4. First name, last name, gender, zip code
Level 5. Last name, gender, parts of DOB

For 2017 ACO data, 29,099/29,106 unique recipient ids sent in the reference file were linked to the claims data, yielding a linkage rate of 99.79%.

For 2018 ACO data, 42,488/42,578 unique recipient ids sent in the reference file were linked to the claims data, yielding a linkage rate of 99.98%.

Medicaid capitated expenditures were incorporated into attributed members' total cost of care, which was then averaged across the expenditures for the population under analysis, e.g., primary care group populations, OUD treatment populations, etc.

The expenditures were inflated and weighted by the average ACO Medicaid membership in the given year. The average ACO Medicaid membership was calculated for these members as the count of months per member divided by 12 from the capitated payment reference file. Note that these amounts may differ from those in the standard member year file.

Reporting of Medicare expenditures to include Medicare reduction amounts in 2018

In order to report Medicare expenditures appropriately, reduction amounts for claims in 2018 were included as part of total expenditures.

Reduction amounts are essentially a fee for service equivalency value – they are dollar amounts that were reduced to zero by CMS as CMS considers them part of the capitated payment to the ACO. In order to appropriately represent cost for health care services, these reduction amounts were added back in.

Reduction amounts were identified on claims by pulling in the line other applied amounts for L codes, and the claim value amount for Q1 codes from the Medicare companion table in the VHCURES extract.

Reporting of Medicare shared savings settlement amount
Using input from the Blueprint and Green Mountain Care Board teams, the 2018 Medicare shared savings settlement amount of $5,568,578, was included in the total expenditures measure. This sum was allocated for Medicare members proportionally to the following HSAs: Barre, Bennington, Brattleboro, Burlington, Middlebury, Springfield, and St. Albans.

REPORTING EXPENDITURES

Crude and Risk-Adjusted
Crude average annual total expenditures were calculated by summing up all expenditures and dividing the sum by the total average patients. The same approach was applied to subcategories of expenditures, such as inpatient, retail pharmacy, or alternative payments so that all subcategories per member per year expenditures summed to the total per member per year expenditure. Of note, the annual report analysis did not deduct $1.5 million returned to Medicaid based on the end-of-year reconciliation of payments, which would have reduced the average per member per year expenditures calculated for the full population by $4.

To understand trends over time, analysis included both a percent change from 2013 to 2018 and compounded annual growth between those years.

RISK-ADJUSTED RATE TRENDS

Outcome measures used in the trend analysis were selected based on input from Blueprint staff. They include expenditures (e.g., total, inpatient facility), utilization (e.g., inpatient, emergency department, primary care), and quality measures (e.g., percent of visits with 30-day follow-up after discharge from ED for mental illness). Detailed definitions of these measures can be found in the profile documentation on the Blueprint website.

Prior to risk adjusting expenditures, outliers were capped at the 99th percentile. Crude expenditures were not capped at the 99th percentile.

The risk adjustment methodology is identical to the methodology used in the Blueprint profiles with exception of a few minor differences in risk adjustment variables—since this analysis combines the entire population and does not separate pediatric members from adults. (http://blueprintforhealth.vermont.gov/community-health-profiles/community-health-profiles-methodology)

Model and Adjustment Variables:

$$\begin{aligned} Outcome\ Measure \\ &= age|gender + major\ payer + CRG + maternity + chonic + dual\ eligible \\ &+ disabled + esrd \end{aligned}$$

Outcome measures that represent counts of visits/services used an adjustment model based on a Poisson distribution. Outcome measures representing expenditure or TCRRV data used an adjustment model based on a Normal distribution.

The risk adjustment process outputs a person-level file including the member's risk-adjusted-rate and various covariates from which the results are summarized.

MEASURE SPECIFICATIONS

Expenditure, utilization, and quality measures were calculated following the methodology outlined in the Blueprint Profile Supporting Documents, available here. Specifications follow national standards, with minor deviations in some instances due to limitations in the data available. Deviations are identified in the profile methodology.

Total Care Relative Resource Value™ (TCRRV) Health Partners' measure is a measurement of resource use across multiple services and is weighted based on the intensity of the resources used in each service. For example, a single surgery would have greater impact than multiple office visits. More information on the methodology employed in this measure is available here.

APPENDIX I: SELECTION CRITERIA FOR IDENTIFYING INDIVIDUALS CATEGORIZED AS HAVING AN OPIOID USE DISORDER

The following describes the process by which VHCURES data is analyzed to identify the Medicaid population categorized as having an opioid use disorder.

Step 1.) Identification of those with opioid use disorders

1. AGE: Members are between 18 and 64 years old.
2. PAYER TYPE: Members are drawn from
   a. Medicaid eligibility data: includes members with full Medicaid coverage based on eligibility aid categories.
   b. Medicare eligibility data: includes members who are Medicare-Medicaid dual eligible. Dual eligible members are identified in the Medicare eligibility data as those members with a dual eligibility code of 1, 2, 3, 4, 5, 6, or 8.
3. LONG TERM CARE EXCLUSION: Members are excluded if they spend 100 days or more institutionalized in a long-term care facility within an analysis year. The exclusion applies to the analysis year and any subsequent analysis year.

Long-term care claims are identified as claims meeting one or more of the following criteria:

   a. The claim contains a category of service code between 501 and 608 (inclusive)
   b. The claim contains a type of bill code of 21, 22, 65, 66, or 67
   c. The claim's rendering provider has a primary specialty code of 317400000X, 311Z00000X, 311500000X, 314000000X, 315P00000X, or 313M00000X

Any date that falls between the admit date and discharge date (inclusive) is counted as a day in a long-term care institution.

4. DIAGNOSIS FOR OPIOID USE DISORDER (OUD): To receive this flag, a member's claim must indicate one of the following diagnosis codes on two or more separate dates during either the current year or the previous year:
   a. A primary or secondary diagnosis of:

ICD-9 Codes 3040, 30400, 30401, 30402, 30403, 3047, 30470, 30471, 30472, 30473, 3055, 30550, 30551, 30552, 30553,

ICD-10 Codes F11, F111, F1110, F1111, F1112, F11120, F11121, F11122, F11129, F1114, F1115, F11150, F11151, F11159, F1118, F11181, F11182, F11188, F1119, F112, F1120, F1121, F1122, F11220, F11221, F11222, F11229, F1123, F1124, F1125, F11250, F11251, F11259, F1128, F11281, F11282, F11288, F1129, F119, F1190, F1192, F11920, F11921, F11922, F11929, F1193, F1194, F1195, F11950, F11951, F11959, F1198, F11981, F11982, F11988, F1199

   b. Any type of medical claim, including a lab claim, is sufficient. However, the claim must be "paid as primary".

Step 2.) Assignment of members identified as having opioid use disorder to one of three distinct therapeutic categories: MAT exposure, non-MAT OUD treatment exposure, and no OUD treatment exposure.

Note: The three groups partition the set of individuals with OUD. Every individual should be included in one, and only one, therapeutic category per calendar year.

1. Member must qualify for the eligible population, satisfying the criteria described in Step 1, above.
2. MAT Exposure Members: Members must receive at least 1 Hub treatment or at least 1 Spoke treatment within the given calendar year:

   a. HUB Treatment: a Hub treatment is determined by a medical claim which includes the Hub procedure codes (CPT/HCPCS). The Hub procedure codes are: H0020, J0571, J0572, J0573, J0574, J0575, J2315, J3490 (see appendix for descriptions).
   b. SPOKE Treatment: a Spoke treatment is determined by at least one pharmacy claim for MAT-related prescription fills identified by National Drug Codes (NDCs) from the attached Appendix.
3. Non-MAT OUD Treatment Exposure Members: members must receive at least 1 OUD treatment, 0 Hub treatments, and 0 Spoke Treatments within the given calendar year:
   a. Members identified in Step 2.2 are removed from consideration for the non-MAT group.
   b. A non-MAT OUD Treatment is determined by a medical claim that satisfies any of the following criteria:
      i. Contains one of the following revenue codes associated with OUD-related treatment: ‘1002’, ‘1004’, ‘0905’, ‘0906’, ‘0907’
      ii. Contains one of the following procedure codes (CPT/HCPCS) associated with OUD-related treatment: 'G0176’, 'G0177’, 'H0001’, 'H0002’, 'H0004’, 'H0005’, 'H0006’, 'H0014’, 'H0016’, 'H0022’, 'H0028’, 'H0031’, 'H0032’, 'H0036’, 'H0037’, 'H0046’, 'H0047’, 'H2017’, 'H2018’, 'H2019’, 'H2020’, 'H2027’, 'H2033’, 'H2035’, 'H2036’, 'S9475’, 'T1006’, 'T1007’, 'T1011’, 'T1012’, '90801’, '90802’, '90804’, '90805’, '90806’, '90807’, '90808’, '90809’, '90810’, '90811’, '90812’, '90813’, '90814’, '90815’, '90845’, '90846’, '90847’, '90849’, '90853’, '90857’, '90862’, '90875’, '90876’, '90880’, 'H0015’, 'S9480’, 'T1008’, 'H0010’, 'H0011’, 'H0012’, 'H0013’, 'H0018’, 'H0019’, 'T2048’, '90816’, '90817’, '90818’, '90819’, '90821’, '90822’, '90823’, '90834’, '90826’, '90827’, '90828’, '90829’, 'H0017’, 'H2013’, 'H0008’, 'H0009’, 'H0035’, 'S0201’, 'H2034'

4. No OUD Treatment Exposure Members:
   a. Members identified in Steps 2.2 - 2.3 are removed from consideration for the no OUD Treatment Exposure group. All other members are assigned to the No OUD Treatment Exposure group.

Procedure Code for Hub treatments:

PROCEDURE_CODE	**APPLICABLE DATES**	**PROCEDURE_CODE_DESC**
H0020	N/A	ALCOHL&/RX SRVC;METHDONE ADMN&/SRVC
J0571	12/1/2016 to present	BUPRENORPHINE ORAL 1 MG
J0572	12/1/2016 to present	BUPRENORPHINE/NALOXONE ORAL </=TO 3 MG BPN
J0573	12/1/2016 to present	BUPRENORPHNE/NALOXONE ORAL >3 MG BUT </=6 MG BPN
J0574	12/1/2016 to present	BUPRENORPHINE/NLX ORAL >6 MG BUT </=TO 10 MG BPN
J0575	12/1/2016 to present	BUPRENORPHINE/NALOXONE ORAL >10 MG BUPRENORPHINE
J2315	12/1/2016 to present	INJECTION NALTREXONE DEPOT FORM 1 MG

J3490	1/1/2013 to 11/30/2016	UNCLASSIFIED DRUGS

National Drug Codes for Spoke treatments:

NDC	**FORM_CODE**	**PRODUCT_NAME**	**THER_CLASS_DESCRIPTION**
59385001201	FIL	BUNAVAIL	Buprenorphine & Comb.
59385001230	FIL	BUNAVAIL	Buprenorphine & Comb.
59385001401	FIL	BUNAVAIL	Buprenorphine & Comb.
59385001430	FIL	BUNAVAIL	Buprenorphine & Comb.
59385001601	FIL	BUNAVAIL	Buprenorphine & Comb.
59385001630	FIL	BUNAVAIL	Buprenorphine & Comb.
00228315403	TAB	BUPRENORPHINE AND NALOXONE	Buprenorphine & Comb.
00228315503	TAB	BUPRENORPHINE AND NALOXONE	Buprenorphine & Comb.
00406192303	TAB	BUPRENORPHINE AND NALOXONE	Buprenorphine & Comb.
00406192403	TAB	BUPRENORPHINE AND NALOXONE	Buprenorphine & Comb.
42291017430	TAB	BUPRENORPHINE AND NALOXONE	Buprenorphine & Comb.
42291017530	TAB	BUPRENORPHINE AND NALOXONE	Buprenorphine & Comb.
55700018430	TAB	BUPRENORPHINE AND NALOXONE	Buprenorphine & Comb.
00228315567		BUPRENORPHINE-NALOXONE 8 MG-2 MG INNER	NARCOTIC WITHDRAWAL THERAPY AGENTS
00228315403	TAB	BUPRENORPHINE HCL AND NALOXONE HCL	Buprenorphine & Comb.
00228315503	TAB	BUPRENORPHINE HCL AND NALOXONE HCL	Buprenorphine & Comb.
00406192303	TAB	BUPRENORPHINE HCL AND NALOXONE HCL	Buprenorphine & Comb.
00406192403	TAB	BUPRENORPHINE HCL AND NALOXONE HCL	Buprenorphine & Comb.
42291017430	TAB	BUPRENORPHINE HCL AND NALOXONE HCL	Buprenorphine & Comb.
42291017530	TAB	BUPRENORPHINE HCL AND NALOXONE HCL	Buprenorphine & Comb.
00054017613	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
00054017713	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
00093537856	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
00093537956	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
00228315303	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
00228315603	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
00378092393	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
00378092493	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
35356055530	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
35356055630	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
42858050103	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
42858050203	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
43063066706	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
43063075306	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
50383092493	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
50383093093	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
53217024630	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.

54569657800	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
55700030230	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
55700030330	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
62756045983	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
62756046083	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
68258299103	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
68308020230	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
68308020830	TAB	BUPRENORPHINE HYDROCHLORIDE	Buprenorphine & Comb.
54569640800	TAB	BUPRENORPHINE HYDROCHLORIDE/NALOXON	Buprenorphine & Comb.
65162041503	TAB	BUPRENORPHINE HYDROCHLORIDE/NALOXON	Buprenorphine & Comb.
65162041603	TAB	BUPRENORPHINE HYDROCHLORIDE/NALOXON	Buprenorphine & Comb.
00054018813	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
00054018913	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
00093572056	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
00093572156	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
00228315403	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
00228315473	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
00228315503	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
00228315573	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
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00406192403	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
00406802003	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
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42291017530	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
50268014411	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
50268014415	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
50268014511	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
50268014515	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
50383028793	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
50383029493	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
53217013830	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
54569640800	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
55700018430	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
60429058630	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
60429058633	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
60429058730	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
60429058733	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
62756096983	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
62756097083	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
65162041503	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.

65162041603	TAB	BUPRENORPHINE-NALOXONE	Buprenorphine & Comb.
50268014411	TAB	BUPRENORPHINE-NALOXONE AVPAK	Buprenorphine & Comb.
50268014415	TAB	BUPRENORPHINE-NALOXONE AVPAK	Buprenorphine & Comb.
50268014515	TAB	BUPRENORPHINE-NALOXONE AVPAK	Buprenorphine & Comb.
53217013830	TAB	BUPRENORPHINE/NALOXONE	Buprenorphine & Comb.
54569640800	TAB	BUPRENORPHINE/NALOXONE	Buprenorphine & Comb.
65162041503	TAB	BUPRENORPHINE/NALOXONE	Buprenorphine & Comb.
65162041603	TAB	BUPRENORPHINE/NALOXONE	Buprenorphine & Comb.
60429058611		BUPRENORPHINE-NALOXONE 2 MG-0.5MG INNER	NARCOTIC WITHDRAWAL THERAPY AGENTS
60429058711		BUPRENORPHINE-NALOXONE 8 MG-2 MG INNER	NARCOTIC WITHDRAWAL THERAPY AGENTS
58284010014		PROBUPHINE 74.2 MG	NARCOTIC WITHDRAWAL THERAPY AGENTS
12496010001		SUBLOCADE 100 MG/0.5 SDV,OUTER	NARCOTIC WITHDRAWAL THERAPY AGENTS
12496010002		SUBLOCADE 100 MG/0.5 SDV,INNER	NARCOTIC WITHDRAWAL THERAPY AGENTS
12496010005		SUBLOCADE 100 MG/0.5 SDV,INNER	NARCOTIC WITHDRAWAL THERAPY AGENTS
12496030001		SUBLOCADE 300 MG/1.5 SDV,OUTER	NARCOTIC WITHDRAWAL THERAPY AGENTS
12496030002		SUBLOCADE 300 MG/1.5 SDV,INNER	NARCOTIC WITHDRAWAL THERAPY AGENTS
12496030005		SUBLOCADE 300 MG/1.5 SDV,INNER	NARCOTIC WITHDRAWAL THERAPY AGENTS
00490005100	TAB	SUBOXONE	Buprenorphine & Comb.
00490005130	TAB	SUBOXONE	Buprenorphine & Comb.
00490005160	TAB	SUBOXONE	Buprenorphine & Comb.
00490005190	TAB	SUBOXONE	Buprenorphine & Comb.
12496120201	FIL	SUBOXONE	Buprenorphine & Comb.
12496120203	FIL	SUBOXONE	Buprenorphine & Comb.
12496120401	FIL	SUBOXONE	Buprenorphine & Comb.
12496120403	FIL	SUBOXONE	Buprenorphine & Comb.
12496120801	FIL	SUBOXONE	Buprenorphine & Comb.
12496120803	FIL	SUBOXONE	Buprenorphine & Comb.
12496121201	FIL	SUBOXONE	Buprenorphine & Comb.
12496121203	FIL	SUBOXONE	Buprenorphine & Comb.
12496128302	TAB	SUBOXONE	Buprenorphine & Comb.
12496130602	TAB	SUBOXONE	Buprenorphine & Comb.
16590066605	TAB	SUBOXONE	Buprenorphine & Comb.
16590066630	TAB	SUBOXONE	Buprenorphine & Comb.
16590066705	TAB	SUBOXONE	Buprenorphine & Comb.
16590066730	TAB	SUBOXONE	Buprenorphine & Comb.

16590066790	TAB	SUBOXONE	Buprenorphine & Comb.
23490927003	TAB	SUBOXONE	Buprenorphine & Comb.
23490927006	TAB	SUBOXONE	Buprenorphine & Comb.
23490927009	TAB	SUBOXONE	Buprenorphine & Comb.
35356000407	TAB	SUBOXONE	Buprenorphine & Comb.
35356000430	TAB	SUBOXONE	Buprenorphine & Comb.
43063018407	TAB	SUBOXONE	Buprenorphine & Comb.
43063018430	TAB	SUBOXONE	Buprenorphine & Comb.
49999039507	TAB	SUBOXONE	Buprenorphine & Comb.
49999039515	TAB	SUBOXONE	Buprenorphine & Comb.
49999039530	TAB	SUBOXONE	Buprenorphine & Comb.
52959030430	TAB	SUBOXONE	Buprenorphine & Comb.
52959074930	TAB	SUBOXONE	Buprenorphine & Comb.
54569549600	TAB	SUBOXONE	Buprenorphine & Comb.
54569573900	TAB	SUBOXONE	Buprenorphine & Comb.
54569573901	TAB	SUBOXONE	Buprenorphine & Comb.
54569573902	TAB	SUBOXONE	Buprenorphine & Comb.
54569639900	FIL	SUBOXONE	Buprenorphine & Comb.
54868570700	TAB	SUBOXONE	Buprenorphine & Comb.
54868570701	TAB	SUBOXONE	Buprenorphine & Comb.
54868570702	TAB	SUBOXONE	Buprenorphine & Comb.
54868570703	TAB	SUBOXONE	Buprenorphine & Comb.
54868570704	TAB	SUBOXONE	Buprenorphine & Comb.
54868575000	TAB	SUBOXONE	Buprenorphine & Comb.
55045378403	TAB	SUBOXONE	Buprenorphine & Comb.
55700014730	FIL	SUBOXONE	Buprenorphine & Comb.
55887031204	TAB	SUBOXONE	Buprenorphine & Comb.
55887031215	TAB	SUBOXONE	Buprenorphine & Comb.
63629403401	TAB	SUBOXONE	Buprenorphine & Comb.
63629403402	TAB	SUBOXONE	Buprenorphine & Comb.
63629403403	TAB	SUBOXONE	Buprenorphine & Comb.
63874108403	TAB	SUBOXONE	Buprenorphine & Comb.
63874108503	TAB	SUBOXONE	Buprenorphine & Comb.
66336001530	TAB	SUBOXONE	Buprenorphine & Comb.
66336001630	TAB	SUBOXONE	Buprenorphine & Comb.
68071138003	TAB	SUBOXONE	Buprenorphine & Comb.
68071151003	TAB	SUBOXONE	Buprenorphine & Comb.
68258299903	TAB	SUBOXONE	Buprenorphine & Comb.
12496127802	TAB	SUBUTEX	Buprenorphine & Comb.
12496131002	TAB	SUBUTEX	Buprenorphine & Comb.
49999063830	TAB	SUBUTEX	Buprenorphine & Comb.
49999063930	TAB	SUBUTEX	Buprenorphine & Comb.
63629409201	TAB	SUBUTEX	Buprenorphine & Comb.

63874117303	TAB	SUBUTEX	Buprenorphine & Comb.
63874117403	TAB	SUBUTEX	Buprenorphine & Comb.
63459030042	GER	VIVITROL	Naltrexone
65757030001	GER	VIVITROL	Naltrexone
54123011430	TAB	ZUBSOLV	Buprenorphine & Comb.
54123090730	TAB	ZUBSOLV	Buprenorphine & Comb.
54123091430	TAB	ZUBSOLV	Buprenorphine & Comb.
54123092930	TAB	ZUBSOLV	Buprenorphine & Comb.
54123095730	TAB	ZUBSOLV	Buprenorphine & Comb.
54123098630	TAB	ZUBSOLV	Buprenorphine & Comb.

Diagnosis Codes for the Opioid Use Disorder Flag:

Code System	**Diagnosis Code**	**Diagnosis Description**
ICD10	F11	OPIOID-RELATED DISORDERS
ICD10	F111	OPIOID ABUSE
ICD10	F1110	OPIOID ABUSE UNCOMPLICATED
ICD10	F1111	OPIOID ABUSE IN REMISSION
ICD10	F1112	OPIOID ABUSE WITH INTOXICATION
ICD10	F11120	OPIOID ABUSE WITH INTOXICATION UNCOMPLICATED
ICD10	F11121	OPIOID ABUSE WITH INTOXICATION DELIRIUM
ICD10	F11122	OPIOID ABUSE W/INTOXICATION W/PERCEPTUAL DISTURB
ICD10	F11129	OPIOID ABUSE WITH INTOXICATION UNSPECIFIED
ICD10	F1114	OPIOID ABUSE WITH OPIOID-INDUCED MOOD DISORDER
ICD10	F1115	OPIOID ABUSE WITH OPIOID-INDUCED PSYCHOTIC DISORDER
ICD10	F11150	OPIOID ABUSE W/INDUCD PSYCHOT D/O W/DELUSIONS
ICD10	F11151	OPIOID ABUSE W/INDUCD PSYCHOT D/O W/HALLUCIN
ICD10	F11159	OPIOID ABUSE W/OPIOID-INDUCD PSYCHOT D/O UNS
ICD10	F1118	OPIOID ABUSE WITH OTHER OPIOID DISORDER
ICD10	F11181	OPIOID ABUSE W/OPIOID-INDUCED SEXUAL DYSFUNCTION
ICD10	F11182	OPIOID ABUSE WITH OPIOID-INDUCED SLEEP DISORDER
ICD10	F11188	OPIOID ABUSE WITH OTHER OPIOID-INDUCED DISORDER
ICD10	F1119	OPIOID ABUSE W/UNS OPIOID-INDUCED DISORDER
ICD10	F112	OPIOID DEPENDENCE
ICD10	F1120	OPIOID DEPENDENCE UNCOMPLICATED
ICD10	F1121	OPIOID DEPENDENCE IN REMISSION
ICD10	F1122	OPIOID DEPENDENCE WITH INTOXICATION
ICD10	F11220	OPIOID DEPEND W/ INTOXICATION UNCOMPLICATED
ICD10	F11221	OPIOID DEPEND W/ INTOXICATION DELIRIUM
ICD10	F11222	OPIOID DEPEND W/ INTOXICATION W/PERCEPTUAL DIST
ICD10	F11229	OPIOID DEPEND W/ INTOXICATION UNSPECIFIED
ICD10	F1123	OPIOID DEPENDENCE WITH WITHDRAWAL
ICD10	F1124	OPIOID DEPEND W/INDUCD MOOD DISORDER
ICD10	F1125	OPIOID DEPENDENCE WITH OPIOID-INDUCED PSYCHOTIC DISORDER

ICD10	F11250	OPIOID DEPEND W/INDUCD PSYCHOTIC D/O W/DELUSIONS
ICD10	F11251	OPIOID DEPEND W/INDUCD PSYCHOTIC D/O W/HALLUC
ICD10	F11259	OPIOID DEPEND W/INDUCD PSYCHOTIC D/O UNS
ICD10	F1128	OPIOID DEPENDENCE WITH OTHER OPIOID-INDUCED DISORDER
ICD10	F11281	OPIOID DEPEND W/INDUCED SEXUAL DYSFUNCTION
ICD10	F11282	OPIOID DEPEND W/OPIOID-INDUCED SLEEP DISORDER
ICD10	F11288	OPIOID DEPEND W/OTH OPIOID-INDUCED DISORDER
ICD10	F1129	OPIOID DEPEND W/UNS OPIOID-INDUCED DISORDER
ICD10	F119	OPIOID USE UNSPECIFIED
ICD10	F1190	OPIOID USE UNSPECIFIED UNCOMPLICATED
ICD10	F1192	OPIOID USE, UNSPECIFIED WITH INTOXICATION
ICD10	F11920	OPIOID USE UNS W/INTOXICATION UNCOMPLICATED
ICD10	F11921	OPIOID USE UNSPECIFIED W/ INTOXICATION DELIRIUM
ICD10	F11922	OPIOID USE UNS W/INTOXICATION W/PERCEPTUAL DIST
ICD10	F11929	OPIOID USE UNS W/INTOXICATION UNSPECIFIED
ICD10	F1193	OPIOID USE UNSPECIFIED WITH WITHDRAWAL
ICD10	F1194	OPIOID USE UNS W/OPIOID-INDUCED MOOD DISORDER
ICD10	F1195	OPIOID USE, UNSPECIFIED WITH OPIOID USE PSYCHOTIC DISORDER
ICD10	F11950	OPIOID USE UNS W/INDUCD PSYCHOT D/O W/DELUSIONS
ICD10	F11951	OPIOID USE UNS W/INDUCD PSYCHOT D/O W/HALLUCIN
ICD10	F11959	OPIOID USE UNS W/OPIOID-INDUCD PSYCHOT D/O UNS
ICD10	F1198	OPIOID USE, UNSPECIFIED WITH OTHE SPECIFIED OPIOID-INDUCED DISORDER
ICD10	F11981	OPIOID USE UNS W/OPIOID-INDUCED SEXUAL DYSFUNCT
ICD10	F11982	OPIOID USE UNS W/OPIOID-INDUCED SLEEP DISORDER
ICD10	F11988	OPIOID USE UNS W/OTHER OPIOID-INDUCED DISORDER
ICD10	F1199	OPIOID USE UNS W/UNS OPIOID-INDUCED DISORDER
ICD9	3040	OPIOID TYPE DEPENDENCE
ICD9	30400	OPIOID TYPE DEPENDENCE UNSPECIFIED
ICD9	30401	OPIOID TYPE DEPENDENCE CONTINUOUS
ICD9	30402	OPIOID TYPE DEPENDENCE EPISODIC
ICD9	30403	OPIOID TYPE DEPENDENCE IN REMISSION
ICD9	3047	COMB OPIOID DRUG WITH ANY OTHER DRUG
ICD9	30470	COMB OPIOID DRUG WITH ANY OTHER DRUG UNSPECIFIED
ICD9	30471	COMB OPIOID DRUG ANY OTH DRUG DEPND CONT
ICD9	30472	COMB OPIOID DRUG ANY OTH DRUG DEPND EPISODIC
ICD9	30473	COMB OPIOID DRUG ANY OTH DRUG DEPND IN REMISSION
ICD9	3055	NON-DEPENDENT ABUSE OF DRUGS, OPIOID ABUSE
ICD9	30550	NONDEP OPIOID ABUSE UNSPEC
ICD9	30551	NONDEP OPIOID ABUSE CONTINUOUS
ICD9	30552	NONDEP OPIOID ABUSE EPISODIC
ICD9	30553	NONDEP OPIOID ABUSE IN REMISSION

Revenue Codes for the Other OUD Treatment Services:

REVENUE_CODE	REVENUE_CODE_DESC
0905	BH/Intensive Outpatient Serv/Psych
0906	BH/Intensive Outpatient Serv/Chem Dep
0907	BH/Community
1002	BH R&B Res/Chem
1004	BH R&B/Halfway House

Procedure Codes for the Other OUD Treatment Services:

PROCEDURE_CODE	PROCEDURE_CODE_DESC
90804	PSYTX OFFICE 20-30 MIN
90807	PSYTX OFF 45-50 MIN W/E&M
90813	INTAC PSYTX 45-50 MIN W/E&M
90818	PSYTX HOSP 45-50 MIN
90816	PSYTX HOSP 20-30 MIN
90822	PSYTX HOSP 75-80 MIN W/E&M
90823	INTAC PSYTX HOSP 20-30 MIN
90809	PSYTX OFF 75-80 W/E&M
90801	PSY DX INTERVIEW
90853	GROUP PSYCHOTHERAPY
90805	PSYTX OFF 20-30 MIN W/E&M
90811	INTAC PSYTX 20-30 W/E&M
90857	INTAC GROUP PSYTX
90810	INTAC PSYTX OFF 20-30 MIN
90845	PSYCHOANALYSIS
90862	MEDICATION MANAGEMENT
90808	PSYTX OFFICE 75-80 MIN
90819	PSYTX HOSP 45-50 MIN W/E&M
90826	INTAC PSYTX HOSP 45-50 MIN
90828	INTAC PSYTX HOSP 75-80 MIN
90806	PSYTX OFF 45-50 MIN
90849	MULTIPLE FAMILY GROUP PSYTX
90880	HYPNOTHERAPY
90812	INTAC PSYTX OFF 45-50 MIN
90815	INTAC PSYTX 75-80 W/E&M
90817	PSYTX HOSP 20-30 MIN W/E&M
90821	PSYTX HOSP 75-80 MIN
90827	INTAC PSYTX HSP 45-50 W/E&M
90829	INTAC PSYTX HSP 75-80 W/E&M
90814	INTAC PSYTX OFF 75-80 MIN
90802	INTAC PSY DX INTERVIEW
H0018	BHVAL HLTH; SHRT-TERM RES PER DIEM
H0035	MENTAL HEALTH PART HOSP TX < 24 HR
G0176	ACTV TX PTS DISABL MENTL HLTH-SESS

H0037	CMTY PSYC SUPPORTIVE TX PROGM-DIEM
H0047	ALCOHOL &OR OTH DRUG ABS SRVC NOS
G0177	TRN&ED PTS DISABL MENTL HLTH-SESS
H0015	ALCOHL&/RX SRVC; INTENSV OP; INTRVN
H0006	ALCOHOL &OR DRUG SRVC; CASE MGMT
H0008	ALCOHL&/RX SRVC;SUB-AC DTOX HOSP IP
H0012	ALCOHL&/RX SRVC; SUB-AC DTOX RES OP
H0016	ALCOHL &OR RX SRVC; MEDICAL/SOMATIC
H0022	ALCOHOL &OR DRUG INTERVEN SERVICE
H0036	CMTY PSYC SUPP TX FCE-TO-FCE-15 MIN
H2019	THERAPEUTIC BEHAVIORAL SRVC 15 MIN
T1012	ALCOHOL&/SBSTNC ABS SRVC SKL DVLP
H2027	PSYCHOEDUCATIONAL SERVICE 15 MIN
H2034	ALC&/RX ABS HALFWAY HOUSE SRVC DIEM
H2036	ALCOHOL &OR OTH DRUG TX PROGM-DIEM
H0031	MENTAL HEALTH ASSESS NON-PHYSICIAN
T2048	BHVAL HLTH; LTC RES W/ROOM&BD-DIEM
H0009	ALCOHL&/RX SRVC; ACUTE DTOX HOSP IP
H2033	MULTISYS THERAPY JUVS PER 15 MIN
H0028	ALCOHL&/RX PREV PROB ID&REF SRVC
H0001	ALCOHOL AND/OR DRUG ASSESSMENT
T1006	ALCOHL&/SBSTNC ABS FAM/COUPLE CNSL
H2013	PSYC HEALTH FACL SERVICE PER DIEM
H2020	THERAPEUTIC BEHAVIORAL SRVC DIEM
H2035	ALCOHOL &OR OTH DRUG TX PROGM-HOUR
H0002	BHVAL HLTH SCR DETRM ADMIS TX PROGM
T1011	Alcohol/Substance Abuse NOC
T1007	ALCOHOL&/SUBSTANCE ABUSE SERVICES
H0005	ALCOHL&/RX SRVC; GRP CNSL CLINICIAN
H0011	ALCOHL&/RX SRVC;AC DTOX RES PROG IP
H0014	ALCOHL &/ RX SRVC; AMB DTOXFICATION
S9480	INTENSIVE OP PSYC SERVICES PER DIEM
H0010	ALCOHL&/RX SRVC; SUB-AC DTOX RES IP
H0013	ALCOHL&/RX SRVC;AC DTOX RES PROG OP
H0017	BHVAL HEALTH; RES W/O ROOM&BD-DIEM
H0032	MENTL HLTH SRVC PLAN DVLP NON-PHYS
S9475	AMB SET SBSTNC ABS TX/DTOX SRVC DAY
H2018	PSYCHOSOCIAL REHAB SRVC PER DIEM
S0201	PART HOSITALIZATN SRVC<24 HR-DIEM
H0046	MENTAL HEALTH SERVICES NOS
H0019	BHVAL HLTH; LNG-TERM RES PER DIEM
T1008	Day Treatment for Individual
H0004	BEHAVIORAL HEALTH CNSL&TX-15 MIN
90875	PSYCHOPHYSIOLOGICAL THERAPY

90876	PSYCHOPHYSIOLOGICAL THERAPY
90834	PSYTX W PT 45 MINUTES
90846	FAMILY PSYTX W/O PT 50 MIN
90847	FAMILY PSYTX W/PT 50 MIN
H2017	PSYCHOSOCIAL REHAB SRVC 15 MINUTES