

## Disclaimer

The following report(s) provides findings from an FDA-initiated query using Sentinel. While Sentinel queries may be undertaken to assess potential medical product safety risks, they may also be initiated for various other reasons. Some examples include determining a rate or count of an identified health outcome of interest, examining medical product use, exploring the feasibility of future, more detailed analyses within Sentinel, and seeking to better understand Sentinel capabilities.

Data obtained through Sentinel are intended to complement other types of evidence such as preclinical studies, clinical trials, postmarket studies, and adverse event reports, all of which are used by FDA to inform regulatory decisions regarding medical product safety. The information contained in this report is provided as part of FDA's commitment to place knowledge acquired from Sentinel in the public domain as soon as possible. Any public health actions taken by FDA regarding products involved in Sentinel queries will continue to be communicated through existing channels.

FDA wants to emphasize that the fact that FDA has initiated a query involving a medical product and is reporting findings related to that query does not mean that FDA is suggesting health care practitioners should change their prescribing practices for the medical product or that patients taking the medical product should stop using it. Patients who have questions about the use of an identified medical product should contact their health care practitioners.

The following report contains a description of the request, request specifications, and results from the modular program run(s).

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## Overview for Request: cder\_mpl1p\_wp096 (Report 1 of 2)

**Request ID:** cder\_mpl1p\_wp096

**Request Description:** The goal of this query was to characterize the capture of well-known confounding characteristics in the Sentinel Distributed Database (SDD).

**Sentinel Routine Querying Module:** Cohort Identification and Descriptive Analysis (CIDA) module, version 14.0.1

**Data Source:** We distributed this request to 14 Sentinel Data Partners on December 9, 2024. The study period included available data from January 1, 2010 to December 31, 2023. Please see Appendix A for a list of dates of available data for each Data Partner. This is report one out of two and includes data from all 14 Sentinel Data Partners, out of which, four Data Partners impute race.

**Study Design:** This request was designed to describe cohorts with prevalent and incident confounding conditions; diagnosis codes for a Body Mass Index (BMI) range; and non-missing values for race and imputed race. Except for the non-missing race and imputed race cohorts, the number of qualifying occurrences (episodes) of the cohort-defining variables were stratified by calendar year, age group \* calendar year, and sex \* calendar year. For the non-missing race and imputed race cohorts, individuals in each race/imputed race category were stratified by sex and age.

This is a Type One request in the Query Request Package (QRP) documentation.

### Cohort Defining Conditions:

**Group One:** Separate prevalent and incident cohorts were identified for occurrences of codes for the following conditions: obesity, overweight, smoking, alcohol abuse or dependence, drug abuse or dependence, coronary artery bypass grafting (CABG) or percutaneous transluminal coronary angioplasty (PTCA), and sudden cardiac arrest. Conditions were defined using International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Current Procedural Terminology (CPT), Healthcare Common Procedure Coding System (HCPCS), and National Drug Codes (NDC). Please see Appendix B for a list of ICD-9-CM, ICD-10-CM, and ICD-10-PCS codes; Appendix C for a list of generic and brand names of medical products; and Appendix D for a list of ICD-10-PCS, CPT, and HCPCS codes used to define these cohorts.

**Group Two:** Separate cohorts were identified for all occurrences of any ICD-9-CM or ICD-10-CM diagnosis codes that indicates any range of BMI, a range of BMI classified as obesity, and a range of BMI classified as overweight. Please see Appendix B for a list of ICD-9-CM and ICD-10-CM codes used to define these cohorts.

**Group Three:** Separate cohorts of members with non-missing values for reported race and imputed race between January 1, 2020 and December 31, 2021 were identified.

For all cohorts except Group Three, the dates of all qualifying occurrences of cohort-defining codes in claims data served as index dates. For Group Three (race cohorts), the dates of the earliest encounter between January 1, 2020 and December 31, 2021 served as the index dates.

## Overview for Request: cder\_mpl1p\_wp096 (Report 1 of 2)

### **Cohort Eligibility Criteria:**

Individuals were required to be continuously enrolled in plans with medical and drug coverage for at least 365 days prior to the index dates, during which gaps in coverage of up to 45 days were allowed. For the incident cohorts, episodes with evidence of the cohort defining condition in the 365 days prior to the index date were not considered valid. The following age groups were included: 0-17, 18-43, 44-64, and 65+ years.

**Individual Characteristics:** The following characteristics were assessed for unique individuals in each cohort on their first valid index date: sex, race, imputed race, and Hispanic origin. Age and the year of cohort entry were assessed on each valid index date.

Please refer to Appendices E through H for the specifications of parameters used in this request, baseline characteristics used in this request, and design diagrams.

**Limitations:** Algorithms used to define exposures and inclusion criteria are imperfect; thus, misclassification is possible. Therefore, data should be interpreted with this limitation in mind.

**Notes:** Please contact the Sentinel Operations Center ([info@sentinelssystem.org](mailto:info@sentinelssystem.org)) for questions and to provide comments/suggestions for future enhancements to this document. For more information on Sentinel's routine querying modules, please refer to the documentation (<https://dev.sentinelssystem.org/projects/SENTINEL/repos/sentinel-routine-querying-tool-documentation/browse>).

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**Glossary of Terms for Analyses Using  
Cohort Identification and Descriptive Analysis (CIDA) Module\***

**Amount Supplied** - number of units (pills, tablets, vials) dispensed. Net amount per NDC per dispensing.

**Blackout Period** - number of days at the beginning of a treatment episode that events are to be ignored. If an event occurs during the blackout period, the episode is excluded.

**Care Setting** - type of medical encounter or facility where the exposure, event, or condition code was recorded. Possible care settings include: Inpatient Hospital Stay (IP), Non-Acute Institutional Stay (IS), Emergency Department (ED), Ambulatory Visit (AV), and Other Ambulatory Visit (OA). For laboratory results, possible care settings include: Emergency Department (E), Home (H), Inpatient (I), Outpatient (O), or Unknown or Missing (U). The Care Setting, along with the Principal Diagnosis Indicator (PDX), forms the Care Setting/PDX parameter.

**Ambulatory Visit (AV)** - includes visits at outpatient clinics, same-day surgeries, urgent care visits, and other same-day ambulatory hospital encounters, but excludes emergency department encounters.

**Emergency Department (ED)** - includes ED encounters that become inpatient stays (in which case inpatient stays would be a separate encounter). Excludes urgent care visits.

**Inpatient Hospital Stay (IP)** - includes all inpatient stays, same-day hospital discharges, hospital transfers, and acute hospital care where the discharge is after the admission date.

**Non-Acute Institutional Stay (IS)** - includes hospice, skilled nursing facility (SNF), rehab center, nursing home, residential, overnight non-hospital dialysis and other non-hospital stays.

**Other Ambulatory Visit (OA)** - includes other non overnight AV encounters such as hospice visits, home health visits, skilled nursing facility visits, other non-hospital visits, as well as telemedicine, telephone and email consultations.

**Charlson/Elixhauser Combined Comorbidity Score** - calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (e.g., in the 183 days prior to index).

**Code Days** - the minimum number of times the diagnosis must be found during the evaluation period in order to fulfill the algorithm to identify the corresponding patient characteristic.

**Cohort Definition (drug/exposure)** - indicates how the cohort will be defined: 01: Cohort includes only the first valid treatment episode during the query period; 02: Cohort includes all valid treatment episodes during the query period; 03: Cohort includes all valid treatment episodes during the query period until an event occurs.

**Computed Start Marketing Date** - represents the first observed dispensing date among all valid users within a GROUP (scenario) within each Data Partner site.

**Days Supplied** - number of days supplied for all dispensings in qualifying treatment episodes.

**Eligible Members** - number of members eligible for an incident treatment episode (defined by the drug/exposure and event washout periods) with drug and medical coverage during the query period.

**Enrollment Gap** - number of days allowed between two consecutive enrollment periods without breaking a "continuously enrolled" sequence.

**Episodes** - treatment episodes; length of episode is determined by days supplied in one dispensing or consecutive dispensings bridged by the episode gap.

**Episode Gap** - number of days allowed between two (or more) consecutive exposures (dispensings/procedures) to be considered the same treatment episode.

**Event Deduplication** - specifies how events are counted by the Modular Program (MP) algorithm: 0: Counts all occurrences of a health outcome of interest (HOI) during an exposure episode; 1: de-duplicates occurrences of the same HOI code and code type on the same day; 2: de-duplicates occurrences of the same HOI group on the same day (e.g., de-duplicates at the group level).

**Exposure Episode Length** - number of days after exposure initiation that is considered "exposed time."

**Exposure Extension Period** - number of days post treatment period in which the outcomes/events are counted for a treatment episode. Extensions are added after any episode gaps have been bridged.

**Lookback Period** - number of days wherein a member is required to have evidence of pre-existing condition (diagnosis/procedure/drug dispensing).

**Maximum Episode Duration** - truncates exposure episodes after a requester-specified number of exposed days. Applied after any gaps are bridged and extension days added to the length of the exposure episode.

**Member-Years** - sum of all days of enrollment with medical and drug coverage in the query period preceded by an exposure washout period all divided by 365.25.

**Minimum Days Supplied** - specifies a minimum number of days in length of the days supplied for the episode to be considered.

**Minimum Episode Duration** - specifies a minimum number of days in length of the episode for it to be considered. Applied after any gaps are bridged and extension days added to the length of the exposure episode.

**Monitoring Period** - used to define time periods of interest for both sequential analysis and simple cohort characterization requests.

**Principal Diagnosis (PDX)** - diagnosis or condition established to be chiefly responsible for admission of the patient to the hospital. 'P' = principal diagnosis, 'S' = secondary diagnosis, 'X' = unspecified diagnosis, '.' = blank. Along with the Care Setting values, forms the Caresetting/PDX parameter.

**Query Period** - period in which the modular program looks for exposures and outcomes of interest.

**Switch Evaluation Step Value** - value used to differentiate evaluation step. Each switch pattern can support up to 2 evaluation steps (0 = switch pattern evaluation start; 1 = first evaluation; 2 = second evaluation).

**Switch Gap Inclusion Indicator** - indicator for whether gaps in treatment episodes that are included in a switch episode will be counted as part of the switch episode duration.

**Switch Pattern Cohort Inclusion Date** - indicates which date to use for inclusion into the switch pattern cohort of interest as well as optionally as the index date of the treatment episode initiating the switch pattern. Valid options are the product approval date, product marketing date, other requester defined date, or computed start marketing date.

**Switch Pattern Cohort Inclusion Strategy** - indicates how the switch pattern cohort inclusion date will be used: 01: used only as a switch cohort entry date. First treatment episode dispensing date is used as index for computing time to first switch; 02: used as switch cohort entry date and as initial switch step index date for computing time to first switch.

**Treatment Episode Truncation Indicator** - indicates whether the exposure episode will be truncated at the occurrence of a requester-specified code.

**Washout Period (drug/exposure)** - number of days a user is required to have no evidence of prior exposure (drug dispensing/procedure) and continuous drug and medical coverage prior to an incident treatment episode.

**Washout Period (event/outcome)** - number of days a user is required to have no evidence of a prior event (procedure/diagnosis) and continuous drug and medical coverage prior to an incident treatment episode.

**Years at Risk** - number of days supplied plus any episode gaps and exposure extension periods all divided by 365.25.

\*All terms may not be used in this report

**Table 1a. Aggregated Characteristics of Incident Obesity and Prevalent Obesity in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Incident Obesity		Prevalent Obesity	
Patient Characteristics <sup>1</sup>	Number	Percent	Number	Percent
Unique patients	41,808,406	100.0%	48,379,256	100.0%
Episodes	62,961,256	100.0%	316,262,801	100.0%
Demographic Characteristics	Mean	Deviation	Mean	Deviation
Age (years)	50.3	15.9	58	14.4
Age	Number	Percent	Number	Percent
0-17 years	9,648,562	15.3%	17,712,736	5.6%
18-43 years	13,357,566	21.2%	52,948,650	16.7%
44-64 years	17,280,182	27.4%	98,102,309	31.0%
≥ 65 years	22,674,946	36.0%	147,499,106	46.6%
Sex				
Female	24,192,599	57.9%	28,222,613	58.3%
Male	17,615,807	42.1%	20,156,643	41.7%
Race <sup>2</sup>				
American Indian or Alaska Native	259,113	0.6%	287,499	0.6%
Asian	675,302	1.6%	743,231	1.5%
Black or African American	5,098,247	12.2%	6,080,928	12.6%
Multi-racial	316,977	0.8%	362,532	0.7%
Native Hawaiian or Other Pacific Islander	107,175	0.3%	121,298	0.3%
Unknown	14,754,740	35.3%	16,913,898	35.0%
White	20,596,852	49.3%	23,869,870	49.3%
Hispanic Origin <sup>2</sup>				
Yes	4,552,086	10.9%	5,006,258	10.3%
No	25,065,865	60.0%	28,880,780	59.7%
Unknown	12,190,455	29.2%	14,492,218	30.0%
Year				
2010	748,283	1.2%	2,122,375	0.7%
2011	1,751,803	2.8%	6,607,460	2.1%
2012	2,033,790	3.2%	7,960,352	2.5%
2013	2,319,235	3.7%	9,562,900	3.0%
2014	2,835,665	4.5%	12,219,264	3.9%
2015	3,670,833	5.8%	16,041,708	5.1%
2016	4,613,543	7.3%	21,318,100	6.7%
2017	6,269,491	10.0%	29,111,667	9.2%
2018	7,044,257	11.2%	34,421,523	10.9%
2019	7,114,361	11.3%	37,124,507	11.7%



**Table 1a. Aggregated Characteristics of Incident Obesity and Prevalent Obesity in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Incident Obesity		Prevalent Obesity	
	Number	Percent	Number	Percent
2020	6,881,625	10.9%	34,580,403	10.9%
2021	8,628,575	13.7%	40,775,423	12.9%
2022	4,514,456	7.2%	31,395,616	9.9%
2023	4,535,339	7.2%	33,021,503	10.4%

<sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and Hispanic origin which are based on total number of unique patients.

<sup>2</sup>Race and Hispanic status are typically populated using self-report data from source and are classified as "Unknown" if not reported or provided.

**Table 1b. Aggregated Characteristics of Incident Overweight and Prevalent Overweight in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Incident Overweight		Prevalent Overweight	
Patient Characteristics <sup>1</sup>	Number	Percent	Number	Percent
Unique patients	24,525,780	100.0%	26,351,868	100.0%
Episodes	32,452,570	100.0%	91,347,478	100.0%
Demographic Characteristics	Mean	Standard Deviation	Mean	Standard Deviation
Age (years)	53.6	16.3	61.6	14.6
Age	Number	Percent	Number	Percent
0-17 years	5,155,657	15.9%	6,985,067	7.6%
18-43 years	5,223,686	16.1%	10,611,268	11.6%
44-64 years	7,252,595	22.3%	19,420,592	21.3%
≥ 65 years	14,820,632	45.7%	54,330,551	59.5%
Sex				
Female	13,363,116	54.5%	14,350,232	54.5%
Male	11,162,664	45.5%	12,001,636	45.5%
Race <sup>2</sup>				
American Indian or Alaska Native	94,624	0.4%	98,835	0.4%
Asian	660,205	2.7%	712,512	2.7%
Black or African American	2,376,474	9.7%	2,570,045	9.8%
Multi-racial	177,403	0.7%	190,056	0.7%
Native Hawaiian or Other Pacific Islander	61,028	0.2%	67,419	0.3%
Unknown	8,026,163	32.7%	8,629,745	32.7%
White	13,129,883	53.5%	14,083,256	53.4%
Hispanic Origin <sup>2</sup>				
Yes	2,284,726	9.3%	2,411,632	9.2%
No	15,177,101	61.9%	16,196,494	61.5%
Unknown	7,063,953	28.8%	7,743,742	29.4%
Year				
2010	136,080	0.4%	213,949	0.2%
2011	351,189	1.1%	562,951	0.6%
2012	540,976	1.7%	1,009,124	1.1%
2013	757,300	2.3%	1,585,129	1.7%
2014	1,105,410	3.4%	2,472,538	2.7%
2015	1,661,011	5.1%	3,837,849	4.2%
2016	2,360,162	7.3%	5,853,028	6.4%
2017	3,439,218	10.6%	8,870,231	9.7%
2018	4,004,380	12.3%	11,228,763	12.3%
2019	4,125,158	12.7%	12,301,982	13.5%

**Table 1b. Aggregated Characteristics of Incident Overweight and Prevalent Overweight in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Incident Overweight		Prevalent Overweight	
	Number	Percent	Number	Percent
2020	3,580,069	11.0%	10,225,227	11.2%
2021	4,412,709	13.6%	11,969,351	13.1%
2022	2,938,644	9.1%	10,358,067	11.3%
2023	3,040,264	9.4%	10,859,289	11.9%

<sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and Hispanic origin which are based on total number of unique patients.

<sup>2</sup>Race and Hispanic status are typically populated using self-report data from source and are classified as "Unknown" if not reported or provided.

**Table 1c. Aggregated Characteristics of Incident Smoking and Prevalent Smoking in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Incident Smoking		Prevalent Smoking	
Patient Characteristics <sup>1</sup>	Number	Percent	Number	Percent
Unique patients	40,664,965	100.0%	46,526,773	100.0%
Episodes	63,427,747	100.0%	307,530,400	100.0%
Demographic Characteristics	Mean	Standard Deviation	Mean	Standard Deviation
Age (years)	59.6	14.5	61.9	13.9
Age	Number	Percent	Number	Percent
0-17 years	1,778,636	2.8%	2,764,831	0.9%
18-43 years	12,930,248	20.4%	48,112,561	15.6%
44-64 years	17,066,166	26.9%	98,477,550	32.0%
≥ 65 years	31,652,697	49.9%	158,175,458	51.4%
Sex				
Female	20,416,148	50.2%	23,406,542	50.3%
Male	20,248,817	49.8%	23,120,231	49.7%
Race <sup>2</sup>				
American Indian or Alaska Native	300,289	0.7%	341,807	0.7%
Asian	683,240	1.7%	747,305	1.6%
Black or African American	4,407,174	10.8%	5,217,833	11.2%
Multi-racial	220,891	0.5%	245,618	0.5%
Native Hawaiian or Other Pacific Islander	92,196	0.2%	103,650	0.2%
Unknown	9,981,295	24.5%	11,318,444	24.3%
White	24,979,880	61.4%	28,552,116	61.4%
Hispanic Origin <sup>2</sup>				
Yes	1,796,548	4.4%	1,993,307	4.3%
No	28,941,696	71.2%	33,078,094	71.1%
Unknown	9,926,721	24.4%	11,455,372	24.6%
Year				
2010	878,718	1.4%	2,119,045	0.7%
2011	2,390,006	3.8%	8,253,797	2.7%
2012	2,708,061	4.3%	9,902,093	3.2%
2013	2,984,761	4.7%	11,699,685	3.8%
2014	3,646,470	5.7%	14,670,353	4.8%
2015	4,391,424	6.9%	18,286,217	5.9%
2016	5,261,178	8.3%	24,434,420	7.9%
2017	6,280,205	9.9%	30,296,214	9.9%
2018	6,670,481	10.5%	33,638,742	10.9%
2019	6,742,942	10.6%	35,798,207	11.6%

**Table 1c. Aggregated Characteristics of Incident Smoking and Prevalent Smoking in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Incident Smoking		Prevalent Smoking	
	Number	Percent	Number	Percent
2020	5,914,530	9.3%	32,278,967	10.5%
2021	6,981,824	11.0%	34,533,664	11.2%
2022	4,357,502	6.9%	25,859,923	8.4%
2023	4,219,645	6.7%	25,759,073	8.4%

<sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and Hispanic origin which are based on total number of unique patients.

<sup>2</sup>Race and Hispanic status are typically populated using self-report data from source and are classified as "Unknown" if not reported or provided.

**Table 1d. Aggregated Characteristics of Incident Alcohol Abuse or Dependence and Prevalent Alcohol Abuse or Dependence in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Incident Alcohol Abuse or Dependence		Prevalent Alcohol Abuse or Dependence	
Patient Characteristics <sup>1</sup>	Number	Percent	Number	Percent
Unique patients	8,161,856	100.0%	9,343,054	100.0%
Episodes	10,133,623	100.0%	101,699,694	100.0%
Demographic Characteristics	Mean	Standard Deviation	Mean	Standard Deviation
Age (years)	52.8	15	50.1	13.7
Age	Number	Percent	Number	Percent
0-17 years	294,122	2.9%	1,939,010	1.9%
18-43 years	3,068,099	30.3%	35,058,298	34.5%
44-64 years	3,563,911	35.2%	44,594,548	43.8%
≥ 65 years	3,207,491	31.7%	20,107,838	19.8%
Sex				
Female	3,213,646	39.4%	3,604,726	38.6%
Male	4,948,210	60.6%	5,738,328	61.4%
Race <sup>2</sup>				
American Indian or Alaska Native	148,469	1.8%	177,881	1.9%
Asian	104,916	1.3%	115,297	1.2%
Black or African American	1,054,333	12.9%	1,218,258	13.0%
Multi-racial	48,746	0.6%	54,809	0.6%
Native Hawaiian or Other Pacific Islander	17,234	0.2%	19,884	0.2%
Unknown	2,213,801	27.1%	2,518,474	27.0%
White	4,574,357	56.0%	5,238,451	56.1%
Hispanic Origin <sup>2</sup>				
Yes	516,401	6.3%	588,507	6.3%
No	5,651,193	69.2%	6,481,306	69.4%
Unknown	1,994,262	24.4%	2,273,241	24.3%
Year				
2010	158,623	1.6%	864,111	0.8%
2011	399,590	3.9%	2,737,937	2.7%
2012	422,166	4.2%	2,984,929	2.9%
2013	441,151	4.4%	3,218,125	3.2%
2014	487,845	4.8%	3,576,978	3.5%
2015	622,731	6.1%	4,635,297	4.6%
2016	770,896	7.6%	6,821,894	6.7%
2017	1,001,129	9.9%	10,595,862	10.4%
2018	1,111,400	11.0%	12,478,370	12.3%
2019	1,120,825	11.1%	13,418,038	13.2%
2020	1,055,701	10.4%	13,847,409	13.6%
2021	1,228,915	12.1%	15,979,491	15.7%
2022	625,978	6.2%	5,219,621	5.1%
2023	686,673	6.8%	5,321,632	5.2%

<sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and Hispanic origin which are based on total number of unique patients.

<sup>2</sup>Race and Hispanic status are typically populated using self-report data from source and are classified as "Unknown" if not reported or provided.

**Table 1e. Aggregated Characteristics of Incident Drug Abuse or Dependence and Prevalent Drug Abuse or Dependence in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Incident Drug Abuse or Dependence		Prevalent Drug Abuse or Dependence	
Patient Characteristics <sup>1</sup>	Number	Percent	Number	Percent
Unique patients	8,826,792	100.0%	9,721,582	100.0%
Episodes	10,838,956	100.0%	66,477,840	100.0%
Demographic Characteristics	Mean	Standard Deviation	Mean	Standard Deviation
Age (years)	47	15.2	43.1	14
Age	Number	Percent	Number	Percent
0-17 years	596,075	5.5%	3,227,446	4.9%
18-43 years	4,333,305	40.0%	33,376,839	50.2%
44-64 years	3,711,280	34.2%	22,923,634	34.5%
≥ 65 years	2,198,296	20.3%	6,949,921	10.5%
Sex				
Female	4,393,678	49.8%	4,782,640	49.2%
Male	4,433,114	50.2%	4,938,942	50.8%
Race <sup>2</sup>				
American Indian or Alaska Native	132,705	1.5%	146,359	1.5%
Asian	89,749	1.0%	97,567	1.0%
Black or African American	1,423,919	16.1%	1,584,039	16.3%
Multi-racial	59,200	0.7%	64,964	0.7%
Native Hawaiian or Other Pacific Islander	23,444	0.3%	26,093	0.3%
Unknown	2,100,174	23.8%	2,315,341	23.8%
White	4,997,601	56.6%	5,487,219	56.4%
Hispanic Origin <sup>2</sup>				
Yes	661,772	7.5%	725,681	7.5%
No	6,492,433	73.6%	7,145,117	73.5%
Unknown	1,672,587	18.9%	1,850,784	19.0%
Year				
2010	134,505	1.2%	494,754	0.7%
2011	397,191	3.7%	1,947,583	2.9%
2012	434,188	4.0%	2,234,753	3.4%
2013	461,485	4.3%	2,465,723	3.7%
2014	527,389	4.9%	2,713,121	4.1%
2015	688,081	6.3%	3,250,239	4.9%
2016	748,843	6.9%	4,190,510	6.3%
2017	1,118,012	10.3%	6,972,399	10.5%
2018	1,275,995	11.8%	8,534,824	12.8%
2019	1,295,293	12.0%	9,177,536	13.8%

**Table 1e. Aggregated Characteristics of Incident Drug Abuse or Dependence and Prevalent Drug Abuse or Dependence in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Incident Drug Abuse or Dependence		Prevalent Drug Abuse or Dependence	
	Number	Percent	Number	Percent
2020	1,231,800	11.4%	9,254,771	13.9%
2021	1,444,633	13.3%	10,174,771	15.3%
2022	549,864	5.1%	2,638,563	4.0%
2023	531,677	4.9%	2,428,293	3.7%

<sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and Hispanic origin which are based on total number of unique patients.

<sup>2</sup>Race and Hispanic status are typically populated using self-report data from source and are classified as "Unknown" if not reported or provided.



**Table 1f. Aggregated Characteristics of Incident History of Coronary Artery Bypass Grafting (CABG) or Percutaneous Transluminal Coronary Angioplasty (PTCA) and Prevalent History of CABG or PTCA in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Incident History of CABG or PTCA		Prevalent History of CABG or PTCA	
Patient Characteristics <sup>1</sup>	Number	Percent	Number	Percent
Unique patients	8,019,614	100.0%	9,095,604	100.0%
Episodes	13,582,256	100.0%	103,308,717	100.0%
Demographic Characteristics	Mean	Standard Deviation	Mean	Standard Deviation
Age (years)	73.9	9.9	73.9	9.4
Age	Number	Percent	Number	Percent
0-17 years	5,922	0.0%	9,534	0.0%
18-43 years	133,329	1.0%	708,876	0.7%
44-64 years	2,178,569	16.0%	14,533,445	14.1%
≥ 65 years	11,264,436	82.9%	88,056,862	85.2%
Sex				
Female	2,964,404	37.0%	3,306,747	36.4%
Male	5,055,210	63.0%	5,788,857	63.6%
Race <sup>2</sup>				
American Indian or Alaska Native	37,786	0.5%	42,857	0.5%
Asian	133,023	1.7%	153,130	1.7%
Black or African American	574,154	7.2%	666,426	7.3%
Multi-racial	15,297	0.2%	17,182	0.2%
Native Hawaiian or Other Pacific Islander	12,662	0.2%	14,990	0.2%
Unknown	1,039,369	13.0%	1,207,286	13.3%
White	6,207,323	77.4%	6,993,733	76.9%
Hispanic Origin <sup>2</sup>				
Yes	164,961	2.1%	190,008	2.1%
No	6,678,299	83.3%	7,512,239	82.6%
Unknown	1,176,354	14.7%	1,393,357	15.3%
Year				
2010	173,107	1.3%	852,704	0.8%
2011	862,191	6.3%	4,814,941	4.7%
2012	844,875	6.2%	5,048,913	4.9%
2013	864,124	6.4%	5,268,210	5.1%
2014	971,133	7.2%	5,998,265	5.8%
2015	1,090,989	8.0%	6,756,392	6.5%
2016	1,170,750	8.6%	8,500,976	8.2%
2017	1,143,765	8.4%	9,241,868	8.9%
2018	1,153,638	8.5%	9,701,698	9.4%
2019	1,183,440	8.7%	10,421,410	10.1%

**Table 1f. Aggregated Characteristics of Incident History of Coronary Artery Bypass Grafting (CABG) or Percutaneous Transluminal Coronary Angioplasty (PTCA) and Prevalent History of CABG or PTCA in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Incident History of CABG or PTCA		Prevalent History of CABG or PTCA	
	Number	Percent	Number	Percent
2020	1,045,668	7.7%	8,828,578	8.5%
2021	1,122,484	8.3%	9,542,580	9.2%
2022	992,096	7.3%	9,122,010	8.8%
2023	963,996	7.1%	9,210,172	8.9%

<sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and Hispanic origin which are based on total number of unique patients.

<sup>2</sup>Race and Hispanic status are typically populated using self-report data from source and are classified as "Unknown" if not reported or provided.

**Table 1g. Aggregated Characteristics of Incident History of Sudden Cardiac Arrest and Prevalent History of Sudden Cardiac Arrest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Incident History of Sudden Cardiac Arrest		Prevalent History of Sudden Cardiac Arrest	
Patient Characteristics <sup>1</sup>	Number	Percent	Number	Percent
Unique patients	2,836,414	100.0%	2,873,004	100.0%
Episodes	2,975,718	100.00%	9,092,987	100.0%
Demographic Characteristics	Mean	Standard Deviation	Mean	Standard Deviation
Age (years)	70.1	13.8	67.7	14.2
Age	Number	Percent	Number	Percent
0-17 years	31,802	1.1%	142,618	1.6%
18-43 years	183,057	6.2%	639,983	7.0%
44-64 years	680,773	22.9%	2,389,334	26.3%
≥ 65 years	2,080,086	69.9%	5,921,052	65.1%
Sex				
Female	1,315,605	46.4%	1,330,415	46.3%
Male	1,520,809	53.6%	1,542,589	53.7%
Race <sup>2</sup>				
American Indian or Alaska Native	21,668	0.8%	21,910	0.8%
Asian	57,590	2.0%	58,438	2.0%
Black or African American	476,961	16.8%	483,958	16.8%
Multi-racial	4,245	0.1%	4,379	0.2%
Native Hawaiian or Other Pacific Islander	4,867	0.2%	4,953	0.2%
Unknown	374,157	13.2%	381,504	13.3%
White	1,896,926	66.9%	1,917,862	66.8%
Hispanic Origin <sup>2</sup>				
Yes	100,177	3.5%	101,837	3.5%
No	2,396,234	84.5%	2,423,653	84.4%
Unknown	340,003	12.0%	347,514	12.1%
Year				
2010	26,012	0.9%	39,457	0.4%
2011	161,740	5.4%	395,131	4.3%
2012	169,380	5.7%	426,275	4.7%
2013	180,028	6.0%	473,467	5.2%
2014	199,482	6.7%	540,770	5.9%
2015	214,399	7.2%	602,686	6.6%
2016	228,234	7.7%	674,781	7.4%
2017	266,524	9.0%	809,464	8.9%
2018	262,614	8.8%	851,881	9.4%
2019	257,688	8.7%	885,772	9.7%

**Table 1g. Aggregated Characteristics of Incident History of Sudden Cardiac Arrest and Prevalent History of Sudden Cardiac Arrest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Incident History of Sudden Cardiac Arrest		Prevalent History of Sudden Cardiac Arrest	
	Number	Percent	Number	Percent
2020	293,193	9.9%	965,898	10.6%
2021	305,913	10.3%	1,025,612	11.3%
2022	215,511	7.2%	727,955	8.0%
2023	195,000	6.6%	673,838	7.4%

<sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and Hispanic origin which are based on total number of unique patients.

<sup>2</sup>Race and Hispanic status are typically populated using self-report data from source and are classified as "Unknown" if not reported or provided.

**Table 1h. Aggregated Characteristics of Has Non-Missing Value for Reported Race and Has Non-Missing Value for Imputed Race in the Sentinel Distributed Database from January 1, 2020 to December 31, 2021**

	Has Non-Missing Value for Reported Race <sup>1</sup>		Has Non-Missing Value for Imputed Race <sup>2</sup>	
Patient Characteristics	Number	Percent	Number	Percent
Unique patients <sup>3</sup>	118,798,367	100.0%	30,685,551	100.0%
Demographic Characteristics	Mean	Standard Deviation	Mean	Standard Deviation
Age (years) <sup>4</sup>	38.5	17.8	62	14.4
Age <sup>4</sup>	Number	Percent	Number	Percent
0-17 years	37,530,597	31.6%	2,251,403	7.3%
18-43 years	31,393,312	26.4%	3,722,836	12.1%
44-64 years	22,585,658	19.0%	4,680,322	15.3%
≥ 65 years	27,288,800	23.0%	20,030,990	65.3%
Sex				
Female	64,796,598	54.5%	17,043,891	55.5%
Male	54,001,769	45.5%	13,641,660	44.5%
Race <sup>5,6</sup>				
American Indian or Alaska Native	998,044	0.8%	115,186	0.4%
Asian	4,083,528	3.4%	837,513	2.7%
Black or African American	15,410,885	13.0%	2,321,388	7.6%
Multi-racial	1,105,565	0.9%	*****	*****
Native Hawaiian or Other Pacific Islander	391,741	0.3%	*****	*****
Unknown	41,779,145	35.2%	4,728,224	15.4%
White	55,029,459	46.3%	22,683,051	73.9%
Hispanic Origin <sup>5</sup>				
Yes	15,720,063	13.2%	560,068	1.8%
No	72,214,508	60.8%	22,992,026	74.9%
Unknown	30,863,796	26.0%	7,133,457	23.2%
Year				
2020	92,496,475	77.9%	26,837,219	87.5%
2021	26,301,892	22.1%	3,848,332	12.5%

<sup>1</sup>If race is not reported, reported race is classified as "Unknown" which is a non-missing value in the Sentinel Database. The purpose of the "Has non-missing reported race" cohort was to describe all enrollees in the data with at least one encounter qualifying the inclusion criteria during 2020-2021.

<sup>2</sup>Only four DPs impute race; for all other DPs, imputed race data is unavailable. DPs have their own methods of imputing and race may not be imputed for all enrollees. DPs can impute the race of any enrollee, regardless of whether their reported race is "Unknown." As a result, even among DPs that perform imputation, enrollees with any value for reported race may receive any imputed race value, including "Unknown," or may have missing imputed race.

<sup>3</sup>Because there is no timestamp for race documentation, the index date for the race cohorts was the date of the first encounter. Since the race value is same across all subsequent encounters, no episodes were created. The number of unique patients in each cohort served as the denominator for all proportions reported in this table.

<sup>4</sup>Age was assessed on the index date, i.e., the first encounter.

<sup>5</sup>Race and Hispanic status are typically populated using self-report data from source and are classified as "Unknown" if not reported or provided.

<sup>6</sup>This variable reflects reported race for the "Non-missing value for reported race" cohort and imputed race for the "Non-missing value for imputed race"

\*\*\*\*\*Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

**Table 1i. Aggregated Characteristics of Has Diagnosis Code that Indicates a Range of Body Mass Index (BMI)<sup>1</sup> in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Has Diagnosis Code that Indicates a Range of BMI	
Patient Characteristics <sup>2</sup>	Number	Percent
Unique patients	64,912,835	100.0%
Episodes	302,294,401	100.0%
Demographic Characteristics	Mean	Standard Deviation
Age (years)	58.6	15.8
Age	Number	Percent
0-17 years	31,737,297	10.5%
18-43 years	38,134,447	12.6%
44-64 years	70,068,902	23.2%
≥ 65 years	162,353,755	53.7%
Sex		
Female	36,913,930	56.9%
Male	27,998,905	43.1%
Race <sup>3</sup>		
American Indian or Alaska Native	277,748	0.4%
Asian	1,671,015	2.6%
Black or African American	7,338,340	11.3%
Multi-racial	521,428	0.8%
Native Hawaiian or Other Pacific Islander	170,104	0.3%
Unknown	22,104,646	34.1%
White	32,829,554	50.6%
Hispanic Origin <sup>3</sup>		
Yes	6,076,636	9.4%
No	39,192,342	60.4%
Unknown	19,643,857	30.3%
Year		
2010	283,120	0.1%
2011	1,488,553	0.5%
2012	2,774,246	0.9%
2013	4,527,771	1.5%
2014	7,288,668	2.4%
2015	11,591,043	3.8%
2016	18,686,493	6.2%
2017	28,426,013	9.4%
2018	36,767,302	12.2%
2019	41,296,320	13.7%

**Table 1i. Aggregated Characteristics of Has Diagnosis Code that Indicates a Range of Body Mass Index (BMI)<sup>1</sup> in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Has Diagnosis Code that Indicates a Range of BMI	
	Number	Percent
2020	35,683,528	11.8%
2021	42,133,681	13.9%
2022	35,161,625	11.6%
2023	36,186,038	12.0%

<sup>1</sup> All ICD-9 and ICD-10 codes for BMI ranges were assessed. Please refer to Appendix B for a list of codes used.

<sup>2</sup> All metrics are based on total number of episodes per group, except for sex, race, and Hispanic origin which are based on total number of unique patients.

<sup>3</sup> Race and Hispanic status are typically populated using self-report data from source and are classified as "Unknown" if not reported or provided.

**Table 1j. Aggregated Characteristics of Has Diagnosis Code that Indicates a Range of Body Mass Index (BMI) that Classifies as Obesity in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Has Diagnosis Code that Indicates a Range of BMI that Classifies as Obesity	
Patient Characteristics <sup>1</sup>	Number	Percent
Unique patients	32,550,071	100.0%
Episodes	158,501,892	100.0%
Demographic Characteristics	Mean	Standard Deviation
Age (years)	59.4	14.1
Age	Number	Percent
0-17 years	8,418,190	5.3%
18-43 years	22,886,969	14.4%
44-64 years	46,448,525	29.3%
≥ 65 years	80,748,208	50.9%
Sex		
Female	18,909,341	58.1%
Male	13,640,730	41.9%
Race <sup>2</sup>		
American Indian or Alaska Native	167,935	0.5%
Asian	403,283	1.2%
Black or African American	4,025,479	12.4%
Multi-racial	243,410	0.7%
Native Hawaiian or Other Pacific Islander	77,819	0.2%
Unknown	10,381,080	31.9%
White	17,251,065	53.0%
Hispanic Origin <sup>2</sup>		
Yes	2,869,884	8.8%
No	20,271,426	62.3%
Unknown	9,408,761	28.9%
Year		
2010	200,539	0.1%
2011	958,859	0.6%
2012	1,608,132	1.0%
2013	2,481,448	1.6%
2014	3,898,686	2.5%
2015	6,067,782	3.8%
2016	9,858,346	6.2%
2017	14,640,492	9.2%
2018	18,717,095	11.8%
2019	20,909,057	13.2%



**Table 1j. Aggregated Characteristics of Has Diagnosis Code that Indicates a Range of Body Mass Index (BMI) that Classifies as Obesity in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Has Diagnosis Code that Indicates a Range of BMI that Classifies as Obesity	
	Number	Percent
2020	18,431,580	11.6%
2021	22,089,891	13.9%
2022	18,978,285	12.0%
2023	19,661,700	12.4%

<sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and Hispanic origin which are based on total number of unique patients.

<sup>2</sup>Race and Hispanic status are typically populated using self-report data from source and are classified as "Unknown" if not reported or provided.

**Table 1k. Aggregated Characteristics of Has Diagnosis Code that Indicates a Range of Body Mass Index (BMI) that Classifies as Overweight in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

Has Diagnosis Code that Indicates a Range of BMI that Classifies as Overweight		
Patient Characteristics <sup>1</sup>	Number	Percent
Unique patients	20,273,743	100.0%
Episodes	72,367,526	100.0%
Demographic Characteristics	Mean	Standard Deviation
Age (years)	63.3	14.4
Age	Number	Percent
0-17 years	4,656,718	6.4%
18-43 years	7,570,528	10.5%
44-64 years	14,452,110	20.0%
≥ 65 years	45,688,170	63.1%
Sex		
Female	10,911,454	53.8%
Male	9,362,289	46.2%
Race <sup>2</sup>		
American Indian or Alaska Native	64,530	0.3%
Asian	546,188	2.7%
Black or African American	1,952,204	9.6%
Multi-racial	137,634	0.7%
Native Hawaiian or Other Pacific Islander	53,139	0.3%
Unknown	6,259,446	30.9%
White	11,260,602	55.5%
Hispanic Origin <sup>2</sup>		
Yes	1,638,613	8.1%
No	12,823,660	63.3%
Unknown	5,811,470	28.7%
Year		
2010	30,822	0.0%
2011	207,180	0.3%
2012	551,692	0.8%
2013	1,024,013	1.4%
2014	1,741,188	2.4%
2015	2,779,910	3.8%
2016	4,541,753	6.3%
2017	7,020,078	9.7%
2018	9,056,573	12.5%
2019	10,106,755	14.0%

**Table 1k. Aggregated Characteristics of Has Diagnosis Code that Indicates a Range of Body Mass Index (BMI) that Classifies as Overweight in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Has Diagnosis Code that Indicates a Range of BMI that Classifies as Overweight	
	Number	Percent
2020	8,331,427	11.5%
2021	9,659,114	13.3%
2022	8,539,608	11.8%
2023	8,777,413	12.1%

<sup>1</sup>All metrics are based on total number of episodes per group, except for sex, race, and Hispanic origin which are based on total number of unique patients.

<sup>2</sup>Race and Hispanic status are typically populated using self-report data from source and are classified as "Unknown" if not reported or provided.

**Table 2. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
<b>Incident Capture (365-Day Washout) of Confounding Conditions</b>					
<i>Incident obesity</i>	41,808,406	256,076,279	1,632.65	62,961,256	795,549,185.8
<i>Incident overweight</i>	24,525,780	261,059,251	939.47	32,452,570	857,493,944.3
<i>Incident smoking</i>	40,664,965	256,469,018	1,585.57	63,427,747	798,271,369.2
<i>Incident alcohol abuse or dependence</i>	8,161,856	261,760,913	311.81	10,133,623	886,877,176.3
<i>Incident drug abuse or dependence</i>	8,826,792	262,067,942	336.81	10,838,956	886,984,715.0
<i>Incident history of Coronary Arterial Bypass Graft (CABG) or Percutaneous Transluminal Coronary Angioplasty (PTCA)</i>	8,019,614	261,853,815	306.26	13,582,256	877,843,764.3
<i>Incident history of sudden cardiac arrest</i>	2,836,414	262,900,487	107.89	2,975,718	900,812,734.2
<b>Prevalent Capture of Confounding Conditions</b>					
<i>Prevalent obesity</i>	48,379,256	262,961,230	1,839.79	316,262,801	901,917,349.3
<i>Prevalent overweight</i>	26,351,868	262,961,230	1,002.12	91,347,478	901,917,349.3
<i>Prevalent smoking</i>	46,526,773	262,961,230	1,769.34	307,530,400	901,917,349.3
<i>Prevalent alcohol abuse or dependence</i>	9,343,054	262,961,230	355.3	101,699,694	901,917,349.3
<i>Prevalent drug abuse or dependence</i>	9,721,582	262,961,230	369.7	66,477,840	901,917,349.3
<i>Prevalent history of CABG or PTCA</i>	9,095,604	262,961,230	345.89	103,308,717	901,917,349.3
<i>Prevalent history of sudden cardiac arrest</i>	2,873,004	262,961,230	109.26	9,092,987	901,917,349.3
<b>Capture of Other Confounding Covariates</b>					
<i>Has non-missing value for reported race</i>	118,798,367	136,735,309	8,688.20	118,798,367	N/A
<i>Has non-missing value for imputed race</i>	30,685,551	33,230,421	9,234.17	30,685,551	N/A
<i>Has diagnosis code that indicates a range of Body Mass Index (BMI)</i>	64,912,835	262,961,230	2,468.53	302,294,401	901,917,349.3
<i>Has diagnosis code that indicates a range of BMI that classifies as obesity</i>	32,550,071	262,961,230	1,237.83	158,501,892	901,917,349.3
<i>Has diagnosis code that indicates a range of BMI that classifies as overweight</i>	20,273,743	262,961,230	770.98	72,367,526	901,917,349.3

<sup>1</sup>Eligible Members and Member-Years are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period.

N/A, Not Applicable

**Table 3. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
<b>Incident Capture (365-Day Washout) of Confounding Conditions</b>					
<i>Incident obesity</i>					
2010	748,283	31,939,395	234.28	748,283	25,904,765.6
2011	1,751,803	46,721,727	374.94	1,751,803	38,949,901.7
2012	2,033,790	50,051,094	406.34	2,033,790	38,858,789.3
2013	2,319,235	47,022,320	493.22	2,319,235	39,000,522.1
2014	2,835,665	51,683,121	548.66	2,835,665	42,576,570.4
2015	3,670,833	63,369,341	579.28	3,670,833	51,862,088.9
2016	4,613,543	102,426,783	450.42	4,613,543	60,842,344.7
2017	6,269,491	96,769,298	647.88	6,269,491	77,968,926.4
2018	7,044,257	101,905,444	691.25	7,044,257	81,732,150.7
2019	7,114,361	100,039,333	711.16	7,114,361	80,075,812.2
2020	6,881,625	112,760,313	610.29	6,881,625	84,273,392.6
2021	8,628,575	111,208,708	775.89	8,628,575	92,785,721.7
2022	4,514,456	51,703,318	873.15	4,514,456	41,332,896.4
2023	4,535,339	49,120,945	923.3	4,535,339	39,385,303.1
<i>Incident overweight</i>					
2010	136,080	32,344,974	42.07	136,080	26,741,854.8
2011	351,189	47,740,827	73.56	351,189	40,998,454.2
2012	540,976	51,426,993	105.19	540,976	41,145,983.1
2013	757,300	48,425,707	156.38	757,300	41,541,305.9
2014	1,105,410	53,446,989	206.82	1,105,410	45,579,684.9
2015	1,661,011	65,624,482	253.11	1,661,011	55,510,214.8
2016	2,360,162	106,748,014	221.1	2,360,162	65,176,564.2
2017	3,439,218	100,529,334	342.11	3,439,218	83,603,859.8
2018	4,004,380	106,267,139	376.82	4,004,380	88,040,535.8
2019	4,125,158	104,762,390	393.76	4,125,158	86,726,403.0
2020	3,580,069	118,231,848	302.8	3,580,069	91,356,320.4
2021	4,412,709	116,331,974	379.32	4,412,709	100,853,725.0
2022	2,938,644	55,592,962	528.6	2,938,644	46,082,614.3
2023	3,040,264	53,102,847	572.52	3,040,264	44,136,424.3
<i>Incident smoking</i>					
2010	878,718	31,847,875	275.91	878,718	25,748,003.1
2011	2,390,006	46,173,721	517.61	2,390,006	37,597,074.4
2012	2,708,061	49,453,216	547.6	2,708,061	37,861,180.5

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	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2013	2,984,761	46,487,740	642.05	2,984,761	38,012,900.9
2014	3,646,470	51,199,182	712.21	3,646,470	41,555,724.5
2015	4,391,424	62,934,966	697.77	4,391,424	50,985,749.6
2016	5,261,178	102,053,387	515.53	5,261,178	59,778,915.9
2017	6,280,205	96,421,647	651.33	6,280,205	77,556,308.4
2018	6,670,481	102,128,188	653.15	6,670,481	82,211,553.2
2019	6,742,942	100,741,903	669.33	6,742,942	81,241,011.0
2020	5,914,530	113,804,341	519.71	5,914,530	85,923,208.2
2021	6,981,824	112,662,160	619.71	6,981,824	95,553,580.4
2022	4,357,502	53,323,164	817.19	4,357,502	42,965,752.4
2023	4,219,645	50,929,669	828.52	4,219,645	41,280,406.8
<i>Incident alcohol abuse or dependence</i>					
2010	158,623	32,292,203	49.12	158,623	26,686,211.4
2011	399,590	47,560,622	84.02	399,590	40,771,690.7
2012	422,166	51,300,978	82.29	422,166	41,067,631.6
2013	441,151	48,389,066	91.17	441,151	41,700,126.1
2014	487,845	53,553,468	91.09	487,845	46,103,635.9
2015	622,731	65,908,139	94.48	622,731	56,524,002.0
2016	770,896	107,642,707	71.62	770,896	66,790,671.8
2017	1,001,129	101,431,684	98.7	1,001,129	86,209,546.0
2018	1,111,400	107,710,834	103.18	1,111,400	91,722,357.8
2019	1,120,825	106,506,700	105.24	1,120,825	90,969,595.8
2020	1,055,701	120,155,564	87.86	1,055,701	95,495,953.4
2021	1,228,915	117,784,988	104.34	1,228,915	104,920,944.6
2022	625,978	57,497,276	108.87	625,978	49,912,023.9
2023	686,673	55,046,132	124.75	686,673	48,002,785.2
<i>Incident drug abuse or dependence</i>					
2010	134,505	32,320,517	41.62	134,505	26,732,937.2
2011	397,191	47,596,432	83.45	397,191	40,800,280.4
2012	434,188	51,332,756	84.58	434,188	41,074,783.4
2013	461,485	48,409,770	95.33	461,485	41,694,293.6
2014	527,389	53,579,351	98.43	527,389	46,090,062.2
2015	688,081	65,917,732	104.38	688,081	56,443,639.6
2016	748,843	107,705,719	69.53	748,843	66,796,685.6
2017	1,118,012	101,565,155	110.08	1,118,012	86,241,281.8

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	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2018	1,275,995	107,821,931	118.34	1,275,995	91,676,381.1
2019	1,295,293	106,605,082	121.5	1,295,293	90,899,620.7
2020	1,231,800	120,205,608	102.47	1,231,800	95,385,751.0
2021	1,444,633	117,882,977	122.55	1,444,633	104,777,475.3
2022	549,864	57,659,536	95.36	549,864	50,099,424.2
2023	531,677	55,241,634	96.25	531,677	48,272,098.9
<i>Incident history of Coronary Arterial Bypass Graft (CABG) or Percutaneous Transluminal Coronary Angioplasty (PTCA)</i>					
2010	173,107	32,255,851	53.67	173,107	26,622,525.7
2011	862,191	47,183,693	182.73	862,191	40,049,254.0
2012	844,875	50,791,908	166.34	844,875	40,273,498.5
2013	864,124	47,931,833	180.28	864,124	40,896,464.0
2014	971,133	53,040,753	183.09	971,133	45,193,231.6
2015	1,090,989	65,432,513	166.73	1,090,989	55,691,734.8
2016	1,170,750	107,466,127	108.94	1,170,750	65,964,692.6
2017	1,143,765	101,009,733	113.23	1,143,765	85,645,267.5
2018	1,153,638	107,319,180	107.5	1,153,638	91,239,772.3
2019	1,183,440	106,115,850	111.52	1,183,440	90,490,848.8
2020	1,045,668	119,863,190	87.24	1,045,668	95,102,807.2
2021	1,122,484	117,517,339	95.52	1,122,484	104,744,649.6
2022	992,096	56,760,741	174.79	992,096	48,877,259.6
2023	963,996	54,350,940	177.37	963,996	47,051,758.2
<i>Incident history of sudden cardiac arrest</i>					
2010	26,012	32,383,943	8.03	26,012	26,871,860.4
2011	161,740	47,808,240	33.83	161,740	41,259,255.4
2012	169,380	51,605,709	32.82	169,380	41,598,307.3
2013	180,028	48,678,386	36.98	180,028	42,262,210.8
2014	199,482	53,876,493	37.03	199,482	46,718,105.6
2015	214,399	66,323,042	32.33	214,399	57,288,330.3
2016	228,234	108,682,054	21	228,234	67,810,819.3
2017	266,524	102,240,825	26.07	266,524	87,620,874.9
2018	262,614	108,612,252	24.18	262,614	93,279,678.8
2019	257,688	107,453,716	23.98	257,688	92,583,085.7
2020	293,193	121,295,518	24.17	293,193	97,147,790.7
2021	305,913	118,763,037	25.76	305,913	106,696,892.4
2022	215,511	57,994,052	37.16	215,511	50,762,428.5

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2023	195,000	55,567,173	35.09	195,000	48,913,093.9
<b>Prevalent Capture of Confounding Conditions</b>					
<i>Prevalent obesity</i>					
2010	1,045,982	32,387,095	322.96	2,122,375	26,881,489.0
2011	2,606,152	47,822,082	544.97	6,607,460	41,306,316.9
2012	3,093,422	51,626,134	599.2	7,960,352	41,649,996.1
2013	3,668,240	48,696,270	753.29	9,562,900	42,318,091.1
2014	4,637,816	53,897,345	860.49	12,219,264	46,781,066.8
2015	6,100,235	66,348,574	919.42	16,041,708	57,359,930.4
2016	7,811,007	108,728,602	718.39	21,318,100	67,892,314.3
2017	10,794,779	102,278,950	1,055.43	29,111,667	87,725,639.5
2018	12,648,577	108,654,928	1,164.11	34,421,523	93,390,315.7
2019	13,349,764	107,497,478	1,241.87	37,124,507	92,690,319.3
2020	13,037,567	121,352,531	1,074.35	34,580,403	97,258,429.9
2021	15,130,435	118,810,716	1,273.49	40,775,423	106,812,941.3
2022	10,025,166	58,033,492	1,727.48	31,395,616	50,850,192.8
2023	10,235,021	55,606,037	1,840.63	33,021,503	49,000,306.2
<i>Prevalent overweight</i>					
2010	155,164	32,387,095	47.91	213,949	26,881,489.0
2011	394,076	47,822,082	82.4	562,951	41,306,316.9
2012	633,578	51,626,134	122.72	1,009,124	41,649,996.1
2013	945,070	48,696,270	194.07	1,585,129	42,318,091.1
2014	1,428,887	53,897,345	265.11	2,472,538	46,781,066.8
2015	2,192,582	66,348,574	330.46	3,837,849	57,359,930.4
2016	3,175,453	108,728,602	292.05	5,853,028	67,892,314.3
2017	4,767,722	102,278,950	466.15	8,870,231	87,725,639.5
2018	5,863,393	108,654,928	539.63	11,228,763	93,390,315.7
2019	6,278,578	107,497,478	584.07	12,301,982	92,690,319.3
2020	5,619,451	121,352,531	463.07	10,225,227	97,258,429.9
2021	6,405,661	118,810,716	539.15	11,969,351	106,812,941.3
2022	4,952,945	58,033,492	853.46	10,358,067	50,850,192.8
2023	5,122,564	55,606,037	921.22	10,859,289	49,000,306.2
<i>Prevalent smoking</i>					
2010	1,204,680	32,387,095	371.96	2,119,045	26,881,489.0
2011	3,640,262	47,822,082	761.21	8,253,797	41,306,316.9



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2012	4,183,049	51,626,134	810.26	9,902,093	41,649,996.1
2013	4,746,360	48,696,270	974.69	11,699,685	42,318,091.1
2014	5,824,027	53,897,345	1,080.58	14,670,353	46,781,066.8
2015	7,124,887	66,348,574	1,073.86	18,286,217	57,359,930.4
2016	8,889,990	108,728,602	817.63	24,434,420	67,892,314.3
2017	10,951,595	102,278,950	1,070.76	30,296,214	87,725,639.5
2018	11,905,225	108,654,928	1,095.69	33,638,742	93,390,315.7
2019	12,212,689	107,497,478	1,136.09	35,798,207	92,690,319.3
2020	11,170,874	121,352,531	920.53	32,278,967	97,258,429.9
2021	12,081,327	118,810,716	1,016.85	34,533,664	106,812,941.3
2022	8,353,660	58,033,492	1,439.45	25,859,923	50,850,192.8
2023	8,227,257	55,606,037	1,479.56	25,759,073	49,000,306.2
<i>Prevalent alcohol abuse or dependence</i>					
2010	215,173	32,387,095	66.44	864,111	26,881,489.0
2011	590,556	47,822,082	123.49	2,737,937	41,306,316.9
2012	632,740	51,626,134	122.56	2,984,929	41,649,996.1
2013	671,119	48,696,270	137.82	3,218,125	42,318,091.1
2014	743,872	53,897,345	138.02	3,576,978	46,781,066.8
2015	942,605	66,348,574	142.07	4,635,297	57,359,930.4
2016	1,192,784	108,728,602	109.7	6,821,894	67,892,314.3
2017	1,614,386	102,278,950	157.84	10,595,862	87,725,639.5
2018	1,804,692	108,654,928	166.09	12,478,370	93,390,315.7
2019	1,857,405	107,497,478	172.79	13,418,038	92,690,319.3
2020	1,823,154	121,352,531	150.24	13,847,409	97,258,429.9
2021	2,045,938	118,810,716	172.2	15,979,491	106,812,941.3
2022	1,046,049	58,033,492	180.25	5,219,621	50,850,192.8
2023	1,128,216	55,606,037	202.89	5,321,632	49,000,306.2
<i>Prevalent drug abuse or dependence</i>					
2010	169,949	32,387,095	52.47	494,754	26,881,489.0
2011	555,614	47,822,082	116.18	1,947,583	41,306,316.9
2012	621,254	51,626,134	120.34	2,234,753	41,649,996.1
2013	668,564	48,696,270	137.29	2,465,723	42,318,091.1
2014	755,015	53,897,345	140.08	2,713,121	46,781,066.8
2015	978,086	66,348,574	147.42	3,250,239	57,359,930.4
2016	1,044,893	108,728,602	96.1	4,190,510	67,892,314.3

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2017	1,579,436	102,278,950	154.42	6,972,399	87,725,639.5
2018	1,824,617	108,654,928	167.93	8,534,824	93,390,315.7
2019	1,894,924	107,497,478	176.28	9,177,536	92,690,319.3
2020	1,874,073	121,352,531	154.43	9,254,771	97,258,429.9
2021	2,135,678	118,810,716	179.75	10,174,771	106,812,941.3
2022	812,629	58,033,492	140.03	2,638,563	50,850,192.8
2023	785,130	55,606,037	141.2	2,428,293	49,000,306.2
<i>Prevalent history of CABG or PTCA</i>					
2010	277,785	32,387,095	85.77	852,704	26,881,489.0
2011	1,420,290	47,822,082	296.99	4,814,941	41,306,316.9
2012	1,486,415	51,626,134	287.92	5,048,913	41,649,996.1
2013	1,535,794	48,696,270	315.38	5,268,210	42,318,091.1
2014	1,724,698	53,897,345	320	5,998,265	46,781,066.8
2015	1,897,385	66,348,574	285.97	6,756,392	57,359,930.4
2016	2,156,896	108,728,602	198.37	8,500,976	67,892,314.3
2017	2,282,657	102,278,950	223.18	9,241,868	87,725,639.5
2018	2,354,321	108,654,928	216.68	9,701,698	93,390,315.7
2019	2,427,715	107,497,478	225.84	10,421,410	92,690,319.3
2020	2,247,539	121,352,531	185.21	8,828,578	97,258,429.9
2021	2,279,717	118,810,716	191.88	9,542,580	106,812,941.3
2022	2,139,342	58,033,492	368.64	9,122,010	50,850,192.8
2023	2,104,828	55,606,037	378.53	9,210,172	49,000,306.2
<i>Prevalent history of sudden cardiac arrest</i>					
2010	27,233	32,387,095	8.41	39,457	26,881,489.0
2011	169,168	47,822,082	35.37	395,131	41,306,316.9
2012	178,246	51,626,134	34.53	426,275	41,649,996.1
2013	190,563	48,696,270	39.13	473,467	42,318,091.1
2014	212,304	53,897,345	39.39	540,770	46,781,066.8
2015	230,054	66,348,574	34.67	602,686	57,359,930.4
2016	246,698	108,728,602	22.69	674,781	67,892,314.3
2017	289,805	102,278,950	28.33	809,464	87,725,639.5
2018	289,169	108,654,928	26.61	851,881	93,390,315.7
2019	286,282	107,497,478	26.63	885,772	92,690,319.3
2020	323,289	121,352,531	26.64	965,898	97,258,429.9
2021	337,099	118,810,716	28.37	1,025,612	106,812,941.3

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2022	243,439	58,033,492	41.95	727,955	50,850,192.8
2023	223,361	55,606,037	40.17	673,838	49,000,306.2

**Capture of Other Confounding Covariates**

*Has diagnosis code that indicates a range of Body Mass Index (BMI)*

2010	206,880	32,387,095	63.88	283,120	26,881,489.0
2011	939,763	47,822,082	196.51	1,488,553	41,306,316.9
2012	1,553,738	51,626,134	300.96	2,774,246	41,649,996.1
2013	2,407,125	48,696,270	494.31	4,527,771	42,318,091.1
2014	3,730,589	53,897,345	692.17	7,288,668	46,781,066.8
2015	5,889,271	66,348,574	887.63	11,591,043	57,359,930.4
2016	8,944,329	108,728,602	822.63	18,686,493	67,892,314.3
2017	13,503,074	102,278,950	1,320.22	28,426,013	87,725,639.5
2018	16,962,681	108,654,928	1,561.15	36,767,302	93,390,315.7
2019	18,625,851	107,497,478	1,732.68	41,296,320	92,690,319.3
2020	17,590,965	121,352,531	1,449.58	35,683,528	97,258,429.9
2021	20,174,033	118,810,716	1,698.00	42,133,681	106,812,941.3
2022	14,510,616	58,033,492	2,500.39	35,161,625	50,850,192.8
2023	14,728,563	55,606,037	2,648.73	36,186,038	49,000,306.2

*Has diagnosis code that indicates a range of BMI that classifies as obesity*

2010	136,925	32,387,095	42.28	200,539	26,881,489.0
2011	574,168	47,822,082	120.06	958,859	41,306,316.9
2012	892,937	51,626,134	172.96	1,608,132	41,649,996.1
2013	1,312,151	48,696,270	269.46	2,481,448	42,318,091.1
2014	1,966,168	53,897,345	364.8	3,898,686	46,781,066.8
2015	2,989,311	66,348,574	450.55	6,067,782	57,359,930.4
2016	4,520,198	108,728,602	415.73	9,858,346	67,892,314.3
2017	6,615,340	102,278,950	646.79	14,640,492	87,725,639.5
2018	8,166,556	108,654,928	751.6	18,717,095	93,390,315.7
2019	8,845,925	107,497,478	822.9	20,909,057	92,690,319.3
2020	8,364,293	121,352,531	689.26	18,431,580	97,258,429.9
2021	9,781,491	118,810,716	823.28	22,089,891	106,812,941.3
2022	7,437,567	58,033,492	1,281.60	18,978,285	50,850,192.8
2023	7,593,076	55,606,037	1,365.51	19,661,700	49,000,306.2

*Has diagnosis code that indicates a range of BMI that classifies as overweight*

2010	25,347	32,387,095	7.83	30,822	26,881,489.0
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**Table 3. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2011	153,466	47,822,082	32.09	207,180	41,306,316.9
2012	332,286	51,626,134	64.36	551,692	41,649,996.1
2013	586,039	48,696,270	120.35	1,024,013	42,318,091.1
2014	969,468	53,897,345	179.87	1,741,188	46,781,066.8
2015	1,533,250	66,348,574	231.09	2,779,910	57,359,930.4
2016	2,391,996	108,728,602	220	4,541,753	67,892,314.3
2017	3,654,723	102,278,950	357.33	7,020,078	87,725,639.5
2018	4,610,227	108,654,928	424.3	9,056,573	93,390,315.7
2019	5,058,385	107,497,478	470.56	10,106,755	92,690,319.3
2020	4,545,221	121,352,531	374.55	8,331,427	97,258,429.9
2021	5,121,283	118,810,716	431.05	9,659,114	106,812,941.3
2022	4,092,335	58,033,492	705.17	8,539,608	50,850,192.8
2023	4,171,748	55,606,037	750.23	8,777,413	49,000,306.2

<sup>1</sup>Eligible Members and Member-Years are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period.

**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
<b>Incident Capture (365-Day Washout) of Confounding Conditions</b>					
<i>Incident obesity</i>					
<i>0-17 years</i>					
2010	60,381	7,511,539	80.38	60,381	5,964,566.4
2011	66,135	7,102,121	93.12	66,135	5,642,514.3
2012	69,443	7,208,393	96.34	69,443	5,349,365.2
2013	77,011	6,533,599	117.87	77,011	5,193,854.0
2014	99,172	7,124,014	139.21	99,172	5,670,698.2
2015	290,979	13,614,282	213.73	290,979	11,085,843.3
2016	521,900	33,017,481	158.07	521,900	16,655,388.9
2017	1,035,397	30,297,855	341.74	1,035,397	24,695,005.2
2018	1,426,920	32,998,819	432.42	1,426,920	26,692,916.9
2019	1,510,354	32,039,327	471.41	1,510,354	25,819,675.4
2020	1,739,006	37,167,187	467.89	1,739,006	28,144,286.8
2021	2,239,715	36,688,539	610.47	2,239,715	31,070,157.9
2022	283,100	6,718,541	421.37	283,100	5,294,420.8
2023	229,049	5,727,726	399.9	229,049	4,509,777.9
<i>18-43 years</i>					
2010	241,905	12,006,596	201.48	241,905	9,016,423.0
2011	333,454	12,518,891	266.36	333,454	9,450,539.7
2012	370,722	13,334,124	278.03	370,722	9,352,512.8
2013	404,140	12,220,523	330.71	404,140	9,222,808.9
2014	474,733	13,147,688	361.08	474,733	9,857,162.4
2015	684,599	16,475,801	415.52	684,599	12,201,465.0
2016	891,092	28,341,416	314.41	891,092	14,250,415.7
2017	1,441,310	27,859,620	517.35	1,441,310	20,412,656.6
2018	1,640,870	29,692,471	552.62	1,640,870	21,747,584.2
2019	1,645,952	29,232,035	563.06	1,645,952	21,450,415.1
2020	1,559,160	33,420,422	466.53	1,559,160	22,644,075.6
2021	2,054,028	34,168,096	601.15	2,054,028	26,918,727.2
2022	794,736	12,758,096	622.93	794,736	9,390,208.7
2023	820,865	11,897,101	689.97	820,865	8,770,934.0
<i>44-64 years</i>					
2010	339,481	10,262,467	330.8	339,481	8,231,125.8
2011	620,673	12,720,125	487.95	620,673	10,204,854.2
2012	703,541	13,217,010	532.3	703,541	9,969,803.3

**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2013	782,031	12,385,550	631.41	782,031	9,863,435.6
2014	917,877	13,290,762	690.61	917,877	10,414,256.7
2015	1,130,962	14,686,927	770.05	1,130,962	11,454,639.1
2016	1,355,244	20,811,524	651.2	1,355,244	12,293,577.8
2017	1,752,906	19,763,002	886.96	1,752,906	15,133,328.1
2018	1,856,469	20,220,213	918.13	1,856,469	15,443,938.8
2019	1,816,735	19,681,519	923.07	1,816,735	15,009,739.6
2020	1,612,045	21,222,050	759.61	1,612,045	15,072,347.2
2021	1,957,664	20,553,585	952.47	1,957,664	16,065,440.7
2022	1,209,486	11,123,878	1,087.29	1,209,486	8,335,994.5
2023	1,225,068	10,429,852	1,174.58	1,225,068	7,806,027.1
<i>≥ 65 years</i>					
2010	106,516	3,109,047	342.6	106,516	2,692,650.4
2011	731,541	15,482,855	472.48	731,541	13,651,993.5
2012	890,084	17,380,975	512.1	890,084	14,187,108.0
2013	1,056,053	16,950,097	623.04	1,056,053	14,720,423.5
2014	1,343,883	19,291,588	696.62	1,343,883	16,634,453.1
2015	1,564,293	20,052,879	780.08	1,564,293	17,120,141.5
2016	1,845,307	21,961,420	840.25	1,845,307	17,642,962.3
2017	2,039,878	21,107,014	966.45	2,039,878	17,727,936.4
2018	2,119,998	21,421,686	989.65	2,119,998	17,847,710.8
2019	2,141,320	21,448,711	998.34	2,141,320	17,795,982.1
2020	1,971,414	23,464,244	840.18	1,971,414	18,412,683.0
2021	2,377,168	22,615,835	1,051.11	2,377,168	18,731,395.8
2022	2,227,134	22,152,760	1,005.35	2,227,134	18,312,272.4
2023	2,260,357	22,048,136	1,025.19	2,260,357	18,298,564.0
<i>Incident overweight</i>					
<i>0-17 years</i>					
2010	30,837	7,526,892	40.97	30,837	5,997,674.7
2011	36,305	7,119,830	50.99	36,305	5,678,086.6
2012	42,532	7,229,986	58.83	42,532	5,385,040.0
2013	51,205	6,553,310	78.14	51,205	5,229,084.8
2014	70,915	7,146,911	99.22	70,915	5,710,446.7
2015	193,183	13,681,593	141.2	193,183	11,219,246.3
2016	326,491	33,483,022	97.51	326,491	16,889,019.6
2017	604,050	30,554,915	197.69	604,050	25,219,992.0

**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2018	743,087	33,362,038	222.73	743,087	27,474,576.7
2019	801,016	32,516,609	246.34	801,016	26,794,721.4
2020	826,848	37,778,480	218.87	826,848	29,368,654.6
2021	1,012,836	37,324,711	271.36	1,012,836	32,646,652.1
2022	225,737	6,795,826	332.17	225,737	5,412,828.1
2023	190,615	5,779,384	329.82	190,615	4,581,867.7
<i>18-43 years</i>					
2010	39,518	12,156,652	32.51	39,518	9,283,937.4
2011	58,441	12,755,916	45.81	58,441	9,851,224.0
2012	82,395	13,626,215	60.47	82,395	9,777,834.1
2013	109,087	12,505,011	87.23	109,087	9,674,306.7
2014	149,685	13,485,186	111	149,685	10,369,801.6
2015	233,706	16,947,072	137.9	233,706	12,910,695.3
2016	334,843	29,558,249	113.28	334,843	15,162,744.7
2017	580,616	28,809,248	201.54	580,616	21,832,109.7
2018	706,052	30,805,291	229.2	706,052	23,374,138.3
2019	727,912	30,388,057	239.54	727,912	23,112,342.0
2020	604,568	34,815,857	173.65	604,568	24,379,108.7
2021	771,731	35,424,661	217.85	771,731	28,992,102.9
2022	397,311	13,408,144	296.32	397,311	10,198,066.4
2023	427,821	12,559,073	340.65	427,821	9,572,887.5
<i>44-64 years</i>					
2010	49,587	10,468,386	47.37	49,587	8,633,944.5
2011	96,940	13,169,372	73.61	96,940	11,004,679.8
2012	146,021	13,791,840	105.87	146,021	10,847,944.5
2013	199,516	12,979,173	153.72	199,516	10,829,493.0
2014	278,183	14,019,947	198.42	278,183	11,534,518.5
2015	402,805	15,592,570	258.33	402,805	12,790,262.1
2016	558,559	22,374,711	249.64	558,559	13,858,364.6
2017	806,558	21,189,766	380.64	806,558	17,091,606.2
2018	916,232	21,834,161	419.63	916,232	17,566,336.7
2019	919,215	21,359,851	430.35	919,215	17,158,730.2
2020	730,444	23,053,506	316.85	730,444	17,195,308.9
2021	877,304	22,209,374	395.02	877,304	18,317,237.9
2022	619,887	12,474,928	496.91	619,887	9,932,513.1
2023	651,344	11,805,373	551.74	651,344	9,412,088.9

**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
<i>≥ 65 years</i>					
2010	16,138	3,174,045	50.84	16,138	2,826,298.2
2011	159,503	15,861,871	100.56	159,503	14,464,463.8
2012	270,028	17,940,361	150.51	270,028	15,135,164.4
2013	397,492	17,533,015	226.71	397,492	15,808,421.4
2014	606,627	20,059,057	302.42	606,627	17,964,918.0
2015	831,317	20,977,822	396.28	831,317	18,590,011.1
2016	1,140,269	23,174,730	492.03	1,140,269	19,266,435.3
2017	1,447,994	22,414,301	646.01	1,447,994	19,460,151.9
2018	1,639,009	22,900,469	715.71	1,639,009	19,625,484.0
2019	1,677,015	23,078,178	726.67	1,677,015	19,660,609.3
2020	1,418,209	25,329,096	559.91	1,418,209	20,413,248.2
2021	1,750,838	24,454,356	715.96	1,750,838	20,897,732.1
2022	1,695,709	24,103,911	703.5	1,695,709	20,539,206.6
2023	1,770,484	24,077,449	735.33	1,770,484	20,569,580.1
<i>Incident smoking</i>					
<i>0-17 years</i>					
2010	11,468	7,528,681	15.23	11,468	6,015,831.8
2011	11,061	7,124,107	15.53	11,061	5,703,607.2
2012	11,198	7,239,070	15.47	11,198	5,416,486.0
2013	9,959	6,561,876	15.18	9,959	5,268,647.3
2014	11,524	7,160,585	16.09	11,524	5,766,626.6
2015	45,963	13,713,929	33.52	45,963	11,373,689.4
2016	139,354	33,721,496	41.32	139,354	17,077,902.4
2017	251,333	30,614,332	82.1	251,333	25,567,124.3
2018	305,278	33,442,555	91.28	305,278	27,909,417.3
2019	335,091	32,612,468	102.75	335,091	27,287,269.5
2020	264,802	37,923,235	69.83	264,802	29,937,155.8
2021	309,441	37,440,712	82.65	309,441	33,382,069.9
2022	45,200	6,858,574	65.9	45,200	5,618,727.2
2023	26,964	5,835,703	46.21	26,964	4,758,667.9
<i>18-43 years</i>					
2010	296,415	11,955,673	247.93	296,415	8,946,152.9
2011	423,372	12,410,074	341.15	423,372	9,295,509.3
2012	451,832	13,210,728	342.02	451,832	9,198,130.2
2013	455,551	12,116,740	375.97	455,551	9,091,566.1



**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2014	521,015	13,071,988	398.57	521,015	9,759,085.4
2015	743,484	16,383,118	453.81	743,484	12,080,674.5
2016	1,012,228	27,986,387	361.69	1,012,228	13,962,670.7
2017	1,508,465	27,649,513	545.57	1,508,465	20,163,863.4
2018	1,661,276	29,585,843	561.51	1,661,276	21,632,051.6
2019	1,640,580	29,241,832	561.04	1,640,580	21,484,227.4
2020	1,471,263	33,508,330	439.07	1,471,263	22,702,882.6
2021	1,820,217	34,456,862	528.26	1,820,217	27,236,714.2
2022	488,546	13,202,137	370.05	488,546	9,955,684.9
2023	436,004	12,433,461	350.67	436,004	9,464,201.5
<i>44-64 years</i>					
2010	398,910	10,221,232	390.28	398,910	8,158,550.0
2011	795,195	12,481,472	637.1	795,195	9,831,128.1
2012	846,366	12,953,411	653.39	846,366	9,629,699.7
2013	881,080	12,140,915	725.71	881,080	9,553,977.5
2014	994,210	13,075,915	760.34	994,210	10,160,448.2
2015	1,195,210	14,484,833	825.15	1,195,210	11,231,598.8
2016	1,399,255	20,414,930	685.41	1,399,255	12,009,495.8
2017	1,743,711	19,536,231	892.55	1,743,711	14,891,461.0
2018	1,841,937	20,131,716	914.94	1,841,937	15,355,933.7
2019	1,812,750	19,711,921	919.62	1,812,750	15,067,759.4
2020	1,557,823	21,289,838	731.72	1,557,823	15,153,096.1
2021	1,804,545	20,754,710	869.46	1,804,545	16,324,343.6
2022	917,079	11,737,230	781.34	917,079	9,104,911.0
2023	878,095	11,164,408	786.51	878,095	8,720,452.9
<i>≥ 65 years</i>					
2010	171,925	3,090,667	556.27	171,925	2,627,468.4
2011	1,160,378	15,242,365	761.28	1,160,378	12,766,829.8
2012	1,398,665	17,126,140	816.68	1,398,665	13,616,864.6
2013	1,638,171	16,726,544	979.38	1,638,171	14,098,710.0
2014	2,119,721	19,058,919	1,112.19	2,119,721	15,869,564.3
2015	2,406,767	19,821,388	1,214.23	2,406,767	16,299,786.9
2016	2,710,341	21,646,181	1,252.11	2,710,341	16,728,847.1
2017	2,776,696	20,920,274	1,327.28	2,776,696	16,933,859.7
2018	2,861,990	21,466,004	1,333.27	2,861,990	17,314,150.6
2019	2,954,521	21,623,500	1,366.35	2,954,521	17,401,754.6

**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2020	2,620,642	23,694,843	1,106.00	2,620,642	18,130,073.6
2021	3,047,621	22,953,669	1,327.73	3,047,621	18,610,452.7
2022	2,906,677	22,640,352	1,283.85	2,906,677	18,286,429.3
2023	2,878,582	22,549,040	1,276.59	2,878,582	18,337,084.4

*Incident alcohol abuse or dependence*

*0-17 years*

2010	7,946	7,530,529	10.55	7,946	6,018,094.6
2011	7,585	7,125,850	10.64	7,585	5,705,886.7
2012	7,105	7,240,948	9.81	7,105	5,419,188.0
2013	6,300	6,563,856	9.6	6,300	5,271,537.8
2014	6,640	7,162,534	9.27	6,640	5,770,010.0
2015	14,990	13,719,279	10.93	14,990	11,386,631.0
2016	24,016	33,863,750	7.09	24,016	17,171,789.6
2017	39,987	30,689,686	13.03	39,987	25,783,461.6
2018	43,520	33,550,806	12.97	43,520	28,204,252.3
2019	45,156	32,727,726	13.8	45,156	27,605,390.8
2020	38,094	38,056,034	10.01	38,094	30,270,249.9
2021	39,402	37,524,272	10.5	39,402	33,670,007.4
2022	6,859	6,876,916	9.97	6,859	5,665,492.0
2023	6,522	5,846,891	11.15	6,522	4,783,768.4

*18-43 years*

2010	64,302	12,132,773	53	64,302	9,249,966.2
2011	98,577	12,710,403	77.56	98,577	9,782,483.8
2012	103,312	13,582,200	76.06	103,312	9,719,674.1
2013	104,280	12,475,213	83.59	104,280	9,643,062.0
2014	110,636	13,471,961	82.12	110,636	10,375,161.1
2015	158,933	16,937,874	93.83	158,933	12,944,919.8
2016	222,851	29,533,973	75.46	222,851	15,205,664.9
2017	346,564	28,794,050	120.36	346,564	21,952,575.3
2018	391,991	30,857,324	127.03	391,991	23,639,744.1
2019	391,009	30,466,169	128.34	391,009	23,444,997.0
2020	374,772	34,869,608	107.48	374,772	24,655,429.9
2021	466,125	35,417,864	131.61	466,125	29,200,656.4
2022	117,416	13,574,764	86.5	117,416	10,550,199.4
2023	117,331	12,735,206	92.13	117,331	9,942,009.4

*44-64 years*

**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2010	65,212	10,441,159	62.46	65,212	8,603,113.1
2011	160,932	13,067,079	123.16	160,932	10,863,627.3
2012	167,685	13,690,345	122.48	167,685	10,729,291.5
2013	172,612	12,900,831	133.8	172,612	10,764,213.6
2014	184,519	13,972,321	132.06	184,519	11,543,955.8
2015	234,098	15,565,697	150.39	234,098	12,871,114.3
2016	279,352	22,371,750	124.87	279,352	14,036,152.9
2017	369,062	21,254,289	173.64	369,062	17,419,224.2
2018	404,883	22,014,542	183.92	404,883	18,103,345.2
2019	398,271	21,597,860	184.4	398,271	17,794,563.2
2020	364,788	23,280,552	156.69	364,788	17,746,699.7
2021	409,185	22,332,987	183.22	409,185	18,783,913.0
2022	173,549	12,807,233	135.51	173,549	10,589,639.8
2023	179,763	12,156,426	147.87	179,763	10,093,375.6
<i>≥ 65 years</i>					
2010	21,163	3,165,501	66.86	21,163	2,815,037.5
2011	132,496	15,814,900	83.78	132,496	14,419,692.9
2012	144,064	17,942,729	80.29	144,064	15,199,478.0
2013	157,959	17,592,907	89.79	157,959	16,021,312.8
2014	186,050	20,216,203	92.03	186,050	18,414,508.9
2015	214,710	21,275,007	100.92	214,710	19,321,336.8
2016	244,677	23,741,977	103.06	244,677	20,377,064.4
2017	245,516	23,181,445	105.91	245,516	21,054,284.8
2018	271,006	23,997,615	112.93	271,006	21,775,016.2
2019	286,389	24,380,911	117.46	286,389	22,124,644.9
2020	278,047	26,778,027	103.83	278,047	22,823,573.9
2021	314,203	25,673,533	122.38	314,203	23,266,367.8
2022	328,154	25,494,918	128.71	328,154	23,106,692.7
2023	383,057	25,492,985	150.26	383,057	23,183,631.8
<i>Incident drug abuse or dependence</i>					
<i>0-17 years</i>					
2010	15,746	7,526,325	20.92	15,746	6,010,647.8
2011	15,446	7,121,038	21.69	15,446	5,697,853.0
2012	15,093	7,235,372	20.86	15,093	5,410,923.7
2013	13,865	6,558,572	21.14	13,865	5,263,151.3
2014	15,267	7,156,803	21.33	15,267	5,760,732.3

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	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2015	35,079	13,706,911	25.59	35,079	11,363,189.4
2016	46,891	33,829,556	13.86	46,891	17,140,732.0
2017	74,344	30,671,360	24.24	74,344	25,749,573.8
2018	85,036	33,529,505	25.36	85,036	28,163,500.7
2019	89,501	32,706,293	27.37	89,501	27,562,692.3
2020	77,782	38,028,491	20.45	77,782	30,223,726.3
2021	87,878	37,505,414	23.43	87,878	33,626,358.4
2022	13,943	6,873,111	20.29	13,943	5,658,954.5
2023	10,204	5,843,806	17.46	10,204	4,779,361.3
<i>18-43 years</i>					
2010	61,882	12,132,357	51.01	61,882	9,253,917.1
2011	124,885	12,681,667	98.48	124,885	9,739,825.5
2012	135,118	13,542,672	99.77	135,118	9,663,064.5
2013	140,012	12,432,191	112.62	140,012	9,578,595.4
2014	152,846	13,425,620	113.85	152,846	10,303,111.9
2015	225,544	16,867,460	133.72	225,544	12,829,322.4
2016	293,346	29,365,283	99.9	293,346	15,061,681.2
2017	499,893	28,691,205	174.23	499,893	21,749,797.2
2018	573,788	30,729,844	186.72	573,788	23,387,112.4
2019	574,944	30,329,765	189.56	574,944	23,179,773.3
2020	580,733	34,670,594	167.5	580,733	24,351,649.1
2021	711,312	35,268,754	201.68	711,312	28,834,478.9
2022	138,759	13,563,980	102.3	138,759	10,518,938.7
2023	120,243	12,736,045	94.41	120,243	9,935,831.3
<i>44-64 years</i>					
2010	43,969	10,464,438	42.02	43,969	8,638,921.8
2011	166,691	13,089,451	127.35	166,691	10,873,279.9
2012	181,398	13,708,670	132.32	181,398	10,727,149.7
2013	194,361	12,914,896	150.49	194,361	10,752,480.4
2014	218,925	13,985,185	156.54	218,925	11,522,131.0
2015	264,130	15,585,961	169.47	264,130	12,844,416.6
2016	266,476	22,521,076	118.32	266,476	14,075,882.9
2017	380,275	21,396,990	177.72	380,275	17,526,396.4
2018	427,133	22,154,514	192.8	427,133	18,194,950.5
2019	423,937	21,728,137	195.11	423,937	17,873,003.8
2020	383,046	23,409,883	163.63	383,046	17,819,457.3

**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2021	429,013	22,457,193	191.04	429,013	18,867,322.3
2022	170,816	12,852,720	132.9	170,816	10,625,109.9
2023	161,110	12,207,644	131.97	161,110	10,143,679.5
<i>≥ 65 years</i>					
2010	12,908	3,174,358	40.66	12,908	2,829,450.6
2011	90,169	15,859,407	56.86	90,169	14,489,322.1
2012	102,579	17,998,021	56.99	102,579	15,273,645.5
2013	113,247	17,643,790	64.19	113,247	16,100,066.5
2014	140,351	20,276,153	69.22	140,351	18,504,087.0
2015	163,328	21,336,980	76.55	163,328	19,406,711.2
2016	142,130	23,849,170	59.6	142,130	20,518,389.4
2017	163,500	23,283,429	70.22	163,500	21,215,514.3
2018	190,038	24,103,084	78.84	190,038	21,930,817.5
2019	206,911	24,491,393	84.48	206,911	22,284,151.2
2020	190,239	26,907,215	70.7	190,239	22,990,918.3
2021	216,430	25,797,329	83.9	216,430	23,449,315.8
2022	226,346	25,625,445	88.33	226,346	23,296,421.2
2023	240,120	25,641,187	93.65	240,120	23,413,226.8
<i>Incident history of Coronary Arterial Bypass Graft (CABG) or Percutaneous Transluminal Coronary Angioplasty (PTCA)</i>					
<i>0-17 years</i>					
2010	119	7,534,716	0.16	119	6,025,522.9
2011	101	7,129,652	0.14	101	5,712,826.5
2012	127	7,245,174	0.18	127	5,425,886.5
2013	113	6,567,218	0.17	113	5,277,624.5
2014	116	7,165,821	0.16	116	5,776,112.5
2015	283	13,725,921	0.21	283	11,400,584.1
2016	429	33,896,878	0.13	429	17,195,818.6
2017	602	30,707,637	0.2	602	25,824,318.8
2018	783	33,570,495	0.23	783	28,248,407.9
2019	1,195	32,746,730	0.36	1,195	27,649,934.5
2020	923	38,077,937	0.24	923	30,314,256.9
2021	762	37,539,523	0.2	762	33,710,165.2
2022	196	6,880,169	0.28	196	5,672,233.2
2023	173	5,849,870	0.3	173	4,789,960.1
<i>18-43 years</i>					
2010	3,706	12,170,271	3.05	3,706	9,320,642.3

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2011	8,009	12,772,045	6.27	8,009	9,899,715.0
2012	7,577	13,655,864	5.55	7,577	9,844,439.7
2013	7,364	12,541,737	5.87	7,364	9,770,914.9
2014	7,371	13,543,592	5.44	7,371	10,509,352.5
2015	8,724	17,046,934	5.12	8,724	13,135,053.1
2016	10,537	29,933,490	3.52	10,537	15,496,761.8
2017	12,866	29,091,517	4.42	12,866	22,440,758.7
2018	14,201	31,192,209	4.55	14,201	24,186,986.4
2019	15,367	30,816,845	4.99	15,367	24,006,750.8
2020	14,469	35,303,984	4.1	14,469	25,243,981.7
2021	12,626	35,782,680	3.53	12,626	29,879,272.6
2022	5,531	13,671,469	4.05	5,531	10,707,491.8
2023	4,981	12,831,459	3.88	4,981	10,094,962.0
<i>44-64 years</i>					
2010	66,378	10,432,808	63.62	66,378	8,592,757.3
2011	145,457	13,072,289	111.27	145,457	10,884,682.6
2012	136,941	13,695,041	99.99	136,941	10,760,423.8
2013	135,784	12,915,911	105.13	135,784	10,807,837.5
2014	142,794	13,994,134	102.04	142,794	11,594,826.4
2015	164,287	15,624,388	105.15	164,287	12,974,295.4
2016	188,156	22,618,257	83.19	188,156	14,192,183.1
2017	203,861	21,429,945	95.13	203,861	17,706,145.1
2018	210,277	22,222,274	94.62	210,277	18,436,843.0
2019	206,123	21,816,031	94.48	206,123	18,135,335.9
2020	178,757	23,549,336	75.91	178,757	18,103,228.8
2021	182,617	22,584,284	80.86	182,617	19,185,466.9
2022	112,618	12,848,682	87.65	112,618	10,666,994.1
2023	104,519	12,206,912	85.62	104,519	10,185,637.0
<i>≥ 65 years</i>					
2010	102,904	3,097,750	332.19	102,904	2,683,603.1
2011	708,624	15,365,920	461.17	708,624	13,552,029.9
2012	700,230	17,349,121	403.61	700,230	14,242,748.5
2013	720,863	17,050,172	422.79	720,863	15,040,087.2
2014	820,852	19,606,305	418.67	820,852	17,312,940.2
2015	917,695	20,629,324	444.85	917,695	18,181,802.2
2016	971,628	22,894,730	424.39	971,628	19,079,929.1

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2017	926,436	22,287,584	415.67	926,436	19,674,044.9
2018	928,377	23,066,519	402.48	928,377	20,367,534.9
2019	960,755	23,426,013	410.12	960,755	20,698,827.6
2020	851,519	25,786,699	330.22	851,519	21,441,339.7
2021	926,479	24,807,132	373.47	926,479	21,969,745.0
2022	873,751	24,620,864	354.88	873,751	21,830,540.5
2023	854,323	24,654,870	346.51	854,323	21,981,199.2
<i>Incident history of sudden cardiac arrest</i>					
<i>0-17 years</i>					
2010	474	7,534,577	0.63	474	6,025,342.5
2011	456	7,129,526	0.64	456	5,712,625.0
2012	465	7,245,026	0.64	465	5,425,703.9
2013	490	6,567,083	0.75	490	5,277,409.1
2014	461	7,165,685	0.64	461	5,775,902.0
2015	1,416	13,725,509	1.03	1,416	11,399,921.4
2016	2,549	33,894,869	0.75	2,549	17,194,589.3
2017	4,104	30,706,311	1.34	4,104	25,822,196.7
2018	4,527	33,568,904	1.35	4,527	28,245,904.5
2019	4,647	32,745,282	1.42	4,647	27,647,705.9
2020	4,932	38,076,227	1.3	4,932	30,312,120.3
2021	6,174	37,538,109	1.64	6,174	33,707,272.7
2022	626	6,879,927	0.91	626	5,671,899.4
2023	481	5,849,667	0.82	481	4,789,670.9
<i>18-43 years</i>					
2010	2,125	12,172,830	1.75	2,125	9,324,283.0
2011	6,569	12,777,549	5.14	6,569	9,907,310.2
2012	6,896	13,662,093	5.05	6,896	9,852,271.0
2013	7,090	12,547,278	5.65	7,090	9,778,217.6
2014	7,092	13,549,206	5.23	7,092	10,516,558.8
2015	9,491	17,052,218	5.57	9,491	13,141,807.8
2016	12,772	29,940,440	4.27	12,772	15,504,251.9
2017	20,339	29,097,735	6.99	20,339	22,447,478.8
2018	21,347	31,198,234	6.84	21,347	24,193,459.6
2019	20,591	30,823,143	6.68	20,591	24,014,469.3
2020	25,324	35,310,000	7.17	25,324	25,251,984.8
2021	30,841	35,786,669	8.62	30,841	29,882,246.9

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2022	6,785	13,674,611	4.96	6,785	10,711,184.1
2023	5,795	12,834,165	4.52	5,795	10,098,130.1
<i>44-64 years</i>					
2010	8,839	10,485,043	8.43	8,839	8,683,687.0
2011	34,677	13,195,284	26.28	34,677	11,086,821.6
2012	36,371	13,842,142	26.28	36,371	10,969,946.7
2013	37,710	13,049,003	28.9	37,710	11,016,418.2
2014	40,397	14,134,584	28.58	40,397	11,811,455.8
2015	46,227	15,771,889	29.31	46,227	13,201,707.4
2016	52,495	22,855,123	22.97	52,495	14,461,692.4
2017	69,126	21,638,777	31.95	69,126	18,011,973.2
2018	69,011	22,435,957	30.76	69,011	18,750,229.5
2019	65,716	22,028,999	29.83	65,716	18,445,046.9
2020	75,706	23,774,251	31.84	75,706	18,391,936.3
2021	79,411	22,760,518	34.89	79,411	19,449,331.2
2022	34,907	12,987,798	26.88	34,907	10,853,700.4
2023	30,180	12,334,562	24.47	30,180	10,357,017.1
<i>≥ 65 years</i>					
2010	14,574	3,177,436	45.87	14,574	2,838,548.0
2011	120,038	15,880,175	75.59	120,038	14,552,498.6
2012	125,648	18,029,527	69.69	125,648	15,350,385.7
2013	134,738	17,676,885	76.22	134,738	16,190,165.9
2014	151,532	20,316,341	74.59	151,532	18,614,189.1
2015	157,265	21,388,216	73.53	157,265	19,544,893.6
2016	160,418	23,893,412	67.14	160,418	20,650,285.7
2017	172,955	23,331,074	74.13	172,955	21,339,226.2
2018	167,729	24,167,651	69.4	167,729	22,090,085.3
2019	166,734	24,572,745	67.85	166,734	22,475,863.6
2020	187,231	27,014,981	69.31	187,231	23,191,749.2
2021	189,487	25,897,326	73.17	189,487	23,658,041.6
2022	173,193	25,733,087	67.3	173,193	23,525,644.6
2023	158,544	25,760,289	61.55	158,544	23,668,275.9



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<b>Prevalent Capture of Confounding Conditions</b>					
<i>Prevalent obesity</i>					
<i>0-17 years</i>					
2010	71,287	7,534,754	94.61	103,813	6,025,645.8
2011	79,985	7,129,694	112.19	118,273	5,712,931.6
2012	85,204	7,245,232	117.6	125,734	5,426,017.0
2013	94,687	6,567,262	144.18	139,825	5,277,750.4
2014	121,659	7,165,877	169.78	175,688	5,776,245.6
2015	358,841	13,726,018	261.43	521,266	11,400,863.7
2016	636,550	33,897,316	187.79	923,633	17,196,296.2
2017	1,306,240	30,707,816	425.38	1,959,272	25,824,993.3
2018	1,808,401	33,570,719	538.68	2,632,766	28,249,185.4
2019	1,993,864	32,747,052	608.87	2,871,428	27,650,972.5
2020	2,260,410	38,078,456	593.62	3,085,137	30,315,689.2
2021	2,896,277	37,539,743	771.52	4,088,456	33,711,087.2
2022	381,041	6,880,258	553.82	541,770	5,672,454.1
2023	300,401	5,849,968	513.51	425,675	4,790,177.2
<i>18-43 years</i>					
2010	333,136	12,173,285	273.66	654,314	9,325,316.6
2011	499,495	12,778,747	390.88	1,187,730	9,910,160.2
2012	557,236	13,663,679	407.82	1,339,661	9,855,394.0
2013	620,606	12,548,735	494.56	1,514,312	9,781,599.9
2014	740,704	13,550,743	546.62	1,808,207	10,519,998.5
2015	1,058,842	17,054,339	620.86	2,527,907	13,146,331.2
2016	1,396,955	29,947,337	466.47	3,423,656	15,510,568.8
2017	2,253,056	29,102,496	774.18	5,382,109	22,458,005.9
2018	2,646,241	31,203,689	848.05	6,382,458	24,205,381.2
2019	2,714,709	30,828,516	880.58	6,603,524	24,025,805.4
2020	2,595,664	35,317,635	734.95	6,251,798	25,264,306.3
2021	3,189,538	35,792,472	891.12	7,773,845	29,897,020.7
2022	1,452,410	13,677,250	1,061.92	3,863,926	10,715,629.6
2023	1,505,212	12,836,629	1,172.59	4,235,203	10,102,180.5
<i>44-64 years</i>					
2010	486,698	10,486,545	464.12	996,405	8,687,602.8
2011	978,957	13,199,845	741.64	2,635,299	11,099,318.1
2012	1,125,763	13,848,316	812.92	3,063,149	10,983,579.6

**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2013	1,296,424	13,054,843	993.06	3,569,328	11,031,025.3
2014	1,570,380	14,141,168	1,110.50	4,356,151	11,827,365.7
2015	1,979,927	15,780,209	1,254.69	5,548,345	13,220,385.3
2016	2,444,915	22,872,924	1,068.91	7,189,434	14,483,960.3
2017	3,244,592	21,652,361	1,498.49	9,513,107	18,043,032.5
2018	3,643,736	22,450,919	1,622.98	10,827,580	18,783,426.5
2019	3,717,805	22,043,885	1,686.55	11,235,482	18,476,127.8
2020	3,402,156	23,793,221	1,429.88	10,014,804	18,423,560.3
2021	3,757,997	22,776,085	1,649.97	11,194,216	19,482,348.4
2022	2,749,578	12,998,330	2,115.33	8,724,208	10,871,911.7
2023	2,816,938	12,344,493	2,281.94	9,234,801	10,374,291.4
<i>≥ 65 years</i>					
2010	159,682	3,178,734	502.34	367,843	2,842,923.8
2011	1,061,151	15,889,082	667.85	2,666,158	14,583,907.1
2012	1,341,741	18,043,117	743.63	3,431,808	15,385,005.5
2013	1,676,108	17,688,467	947.57	4,339,435	16,227,715.5
2014	2,230,718	20,330,182	1,097.24	5,879,218	18,657,456.9
2015	2,735,812	21,404,260	1,278.16	7,444,190	19,592,350.2
2016	3,377,600	23,914,591	1,412.36	9,781,377	20,701,489.0
2017	4,050,518	23,351,701	1,734.57	12,257,179	21,399,607.8
2018	4,620,840	24,190,631	1,910.18	14,578,719	22,152,322.6
2019	4,998,191	24,596,886	2,032.04	16,414,073	22,537,413.6
2020	4,847,565	27,045,667	1,792.36	15,228,664	23,254,874.1
2021	5,365,872	25,924,678	2,069.79	17,718,906	23,722,485.0
2022	5,503,306	25,760,788	2,136.31	18,265,712	23,590,197.4
2023	5,677,377	25,788,108	2,201.55	19,125,824	23,733,657.1
<i>Prevalent overweight</i>					
<i>0-17 years</i>					
2010	33,468	7,534,754	44.42	40,683	6,025,645.8
2011	39,587	7,129,694	55.52	47,247	5,712,931.6
2012	46,459	7,245,232	64.12	53,981	5,426,017.0
2013	55,973	6,567,262	85.23	64,677	5,277,750.4
2014	77,521	7,165,877	108.18	88,736	5,776,245.6
2015	210,660	13,726,018	153.47	241,941	11,400,863.7
2016	356,465	33,897,316	105.16	415,327	17,196,296.2
2017	677,266	30,707,816	220.55	819,808	25,824,993.3

**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2018	848,569	33,570,719	252.77	1,043,163	28,249,185.4
2019	920,695	32,747,052	281.15	1,128,023	27,650,972.5
2020	939,239	38,078,456	246.66	1,103,539	30,315,689.2
2021	1,137,735	37,539,743	303.07	1,354,175	33,711,087.2
2022	264,054	6,880,258	383.79	316,064	5,672,454.1
2023	223,027	5,849,968	381.24	267,703	4,790,177.2
<i>18-43 years</i>					
2010	45,103	12,173,285	37.05	63,575	9,325,316.6
2011	66,731	12,778,747	52.22	96,102	9,910,160.2
2012	93,531	13,663,679	68.45	135,895	9,855,394.0
2013	127,102	12,548,735	101.29	186,787	9,781,599.9
2014	177,812	13,550,743	131.22	265,727	10,519,998.5
2015	280,753	17,054,339	164.62	421,720	13,146,331.2
2016	408,134	29,947,337	136.28	638,160	15,510,568.8
2017	722,294	29,102,496	248.19	1,130,133	22,458,005.9
2018	910,802	31,203,689	291.89	1,455,557	24,205,381.2
2019	957,306	30,828,516	310.53	1,540,017	24,025,805.4
2020	813,414	35,317,635	230.31	1,264,880	25,264,306.3
2021	971,268	35,792,472	271.36	1,514,267	29,897,020.7
2022	547,535	13,677,250	400.33	915,229	10,715,629.6
2023	585,686	12,836,629	456.26	983,219	10,102,180.5
<i>44-64 years</i>					
2010	57,929	10,486,545	55.24	82,256	8,687,602.8
2011	111,895	13,199,845	84.77	163,235	11,099,318.1
2012	169,126	13,848,316	122.13	257,893	10,983,579.6
2013	243,077	13,054,843	186.2	387,368	11,031,025.3
2014	350,268	14,141,168	247.69	573,934	11,827,365.7
2015	520,407	15,780,209	329.78	879,854	13,220,385.3
2016	742,178	22,872,924	324.48	1,338,701	14,483,960.3
2017	1,118,354	21,652,361	516.5	2,043,309	18,043,032.5
2018	1,348,770	22,450,919	600.76	2,532,770	18,783,426.5
2019	1,401,953	22,043,885	635.98	2,669,813	18,476,127.8
2020	1,164,166	23,793,221	489.28	2,105,245	18,423,560.3
2021	1,277,435	22,776,085	560.87	2,355,475	19,482,348.4
2022	998,711	12,998,330	768.34	1,956,388	10,871,911.7
2023	1,045,301	12,344,493	846.78	2,074,351	10,374,291.4

**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
<i>≥ 65 years</i>					
2010	18,949	3,178,734	59.61	27,435	2,842,923.8
2011	176,480	15,889,082	111.07	256,367	14,583,907.1
2012	325,621	18,043,117	180.47	561,355	15,385,005.5
2013	520,816	17,688,467	294.44	946,297	16,227,715.5
2014	826,240	20,330,182	406.41	1,544,141	18,657,456.9
2015	1,185,521	21,404,260	553.87	2,294,334	19,592,350.2
2016	1,676,491	23,914,591	701.03	3,460,840	20,701,489.0
2017	2,262,098	23,351,701	968.71	4,876,981	21,399,607.8
2018	2,771,145	24,190,631	1,145.54	6,197,273	22,152,322.6
2019	3,016,183	24,596,886	1,226.25	6,964,129	22,537,413.6
2020	2,716,694	27,045,667	1,004.48	5,751,563	23,254,874.1
2021	3,035,581	25,924,678	1,170.92	6,745,434	23,722,485.0
2022	3,157,075	25,760,788	1,225.54	7,170,386	23,590,197.4
2023	3,283,772	25,788,108	1,273.37	7,534,016	23,733,657.1
<i>Prevalent smoking</i>					
<i>0-17 years</i>					
2010	13,159	7,534,754	17.46	18,330	6,025,645.8
2011	12,630	7,129,694	17.71	18,115	5,712,931.6
2012	12,813	7,245,232	17.68	18,699	5,426,017.0
2013	11,590	6,567,262	17.65	17,231	5,277,750.4
2014	13,222	7,165,877	18.45	20,063	5,776,245.6
2015	50,004	13,726,018	36.43	65,007	11,400,863.7
2016	155,224	33,897,316	45.79	205,113	17,196,296.2
2017	291,993	30,707,816	95.09	375,950	25,824,993.3
2018	365,307	33,570,719	108.82	469,382	28,249,185.4
2019	400,921	32,747,052	122.43	522,949	27,650,972.5
2020	328,706	38,078,456	86.32	421,126	30,315,689.2
2021	367,545	37,539,743	97.91	472,556	33,711,087.2
2022	56,480	6,880,258	82.09	87,246	5,672,454.1
2023	33,184	5,849,968	56.73	53,064	4,790,177.2
<i>18-43 years</i>					
2010	401,255	12,173,285	329.62	657,998	9,325,316.6
2011	652,418	12,778,747	510.55	1,424,986	9,910,160.2
2012	711,712	13,663,679	520.88	1,633,769	9,855,394.0
2013	739,357	12,548,735	589.19	1,789,394	9,781,599.9

**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2014	838,634	13,550,743	618.88	2,070,453	10,519,998.5
2015	1,169,330	17,054,339	685.65	2,733,856	13,146,331.2
2016	1,650,624	29,947,337	551.18	3,862,737	15,510,568.8
2017	2,426,223	29,102,496	833.68	5,580,239	22,458,005.9
2018	2,691,438	31,203,689	862.54	6,304,195	24,205,381.2
2019	2,654,867	30,828,516	861.17	6,324,516	24,025,805.4
2020	2,426,395	35,317,635	687.02	5,816,459	25,264,306.3
2021	2,740,825	35,792,472	765.75	6,309,692	29,897,020.7
2022	794,093	13,677,250	580.59	1,968,348	10,715,629.6
2023	684,197	12,836,629	533	1,635,919	10,102,180.5
<i>44-64 years</i>					
2010	559,046	10,486,545	533.11	1,001,128	8,687,602.8
2011	1,331,321	13,199,845	1,008.59	3,324,573	11,099,318.1
2012	1,470,238	13,848,316	1,061.67	3,890,607	10,983,579.6
2013	1,599,539	13,054,843	1,225.25	4,487,353	11,031,025.3
2014	1,830,781	14,141,168	1,294.65	5,294,050	11,827,365.7
2015	2,207,115	15,780,209	1,398.66	6,462,823	13,220,385.3
2016	2,685,695	22,872,924	1,174.18	8,279,137	14,483,960.3
2017	3,392,123	21,652,361	1,566.63	10,398,454	18,043,032.5
2018	3,658,514	22,450,919	1,629.56	11,416,852	18,783,426.5
2019	3,642,702	22,043,885	1,652.48	11,639,856	18,476,127.8
2020	3,254,635	23,793,221	1,367.88	10,143,479	18,423,560.3
2021	3,387,220	22,776,085	1,487.18	10,232,578	19,482,348.4
2022	1,901,393	12,998,330	1,462.80	6,151,481	10,871,911.7
2023	1,800,804	12,344,493	1,458.79	5,755,179	10,374,291.4
<i>≥ 65 years</i>					
2010	235,520	3,178,734	740.92	441,589	2,842,923.8
2011	1,660,533	15,889,082	1,045.08	3,486,123	14,583,907.1
2012	2,008,457	18,043,117	1,113.14	4,359,018	15,385,005.5
2013	2,418,645	17,688,467	1,367.36	5,405,707	16,227,715.5
2014	3,169,524	20,330,182	1,559.02	7,285,787	18,657,456.9
2015	3,732,498	21,404,260	1,743.81	9,024,531	19,592,350.2
2016	4,442,651	23,914,591	1,857.72	12,087,433	20,701,489.0
2017	4,894,397	23,351,701	2,095.95	13,941,571	21,399,607.8
2018	5,247,657	24,190,631	2,169.29	15,448,313	22,152,322.6
2019	5,574,624	24,596,886	2,266.39	17,310,886	22,537,413.6

**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2020	5,215,003	27,045,667	1,928.22	15,897,903	23,254,874.1
2021	5,643,111	25,924,678	2,176.73	17,518,838	23,722,485.0
2022	5,643,202	25,760,788	2,190.62	17,652,848	23,590,197.4
2023	5,750,253	25,788,108	2,229.81	18,314,911	23,733,657.1

*Prevalent alcohol abuse or dependence*

*0-17 years*

2010	9,400	7,534,754	12.48	36,507	6,025,645.8
2011	8,919	7,129,694	12.51	36,849	5,712,931.6
2012	8,414	7,245,232	11.61	33,251	5,426,017.0
2013	7,505	6,567,262	11.43	32,934	5,277,750.4
2014	7,822	7,165,877	10.92	32,515	5,776,245.6
2015	17,613	13,726,018	12.83	80,323	11,400,863.7
2016	28,974	33,897,316	8.55	153,544	17,196,296.2
2017	48,288	30,707,816	15.72	277,822	25,824,993.3
2018	52,854	33,570,719	15.74	313,747	28,249,185.4
2019	54,452	32,747,052	16.63	312,316	27,650,972.5
2020	47,460	38,078,456	12.46	289,982	30,315,689.2
2021	47,609	37,539,743	12.68	269,625	33,711,087.2
2022	8,352	6,880,258	12.14	37,791	5,672,454.1
2023	7,929	5,849,968	13.55	31,804	4,790,177.2

*18-43 years*

2010	82,474	12,173,285	67.75	349,965	9,325,316.6
2011	138,097	12,778,747	108.07	666,015	9,910,160.2
2012	145,474	13,663,679	106.47	714,514	9,855,394.0
2013	148,455	12,548,735	118.3	753,287	9,781,599.9
2014	157,586	13,550,743	116.29	831,075	10,519,998.5
2015	225,906	17,054,339	132.46	1,213,289	13,146,331.2
2016	329,427	29,947,337	110	2,196,125	15,510,568.8
2017	531,627	29,102,496	182.67	3,879,458	22,458,005.9
2018	605,271	31,203,689	193.97	4,720,718	24,205,381.2
2019	619,804	30,828,516	201.05	5,140,855	24,025,805.4
2020	619,783	35,317,635	175.49	5,506,641	25,264,306.3
2021	738,308	35,792,472	206.27	6,800,932	29,897,020.7
2022	184,132	13,677,250	134.63	1,151,490	10,715,629.6
2023	182,982	12,836,629	142.55	1,133,934	10,102,180.5

*44-64 years*

**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2010	93,368	10,486,545	89.04	392,331	8,687,602.8
2011	259,213	13,199,845	196.38	1,336,423	11,099,318.1
2012	275,256	13,848,316	198.76	1,457,414	10,983,579.6
2013	289,220	13,054,843	221.54	1,564,109	11,031,025.3
2014	310,821	14,141,168	219.8	1,680,892	11,827,365.7
2015	392,047	15,780,209	248.44	2,168,709	13,220,385.3
2016	483,585	22,872,924	211.42	3,085,685	14,483,960.3
2017	666,766	21,652,361	307.94	4,909,618	18,043,032.5
2018	735,008	22,450,919	327.38	5,709,920	18,783,426.5
2019	737,106	22,043,885	334.38	6,028,746	18,476,127.8
2020	704,851	23,793,221	296.24	6,049,421	18,423,560.3
2021	757,932	22,776,085	332.78	6,688,321	19,482,348.4
2022	316,625	12,998,330	243.59	1,801,939	10,871,911.7
2023	320,460	12,344,493	259.6	1,721,020	10,374,291.4
<i>≥ 65 years</i>					
2010	31,095	3,178,734	97.82	85,308	2,842,923.8
2011	187,636	15,889,082	118.09	698,650	14,583,907.1
2012	207,196	18,043,117	114.83	779,750	15,385,005.5
2013	229,717	17,688,467	129.87	867,795	16,227,715.5
2014	271,897	20,330,182	133.74	1,032,496	18,657,456.9
2015	312,084	21,404,260	145.8	1,172,976	19,592,350.2
2016	357,488	23,914,591	149.49	1,386,540	20,701,489.0
2017	377,115	23,351,701	161.49	1,528,964	21,399,607.8
2018	422,109	24,190,631	174.49	1,733,985	22,152,322.6
2019	457,236	24,596,886	185.89	1,936,121	22,537,413.6
2020	462,416	27,045,667	170.98	2,001,365	23,254,874.1
2021	515,392	25,924,678	198.8	2,220,613	23,722,485.0
2022	543,336	25,760,788	210.92	2,228,401	23,590,197.4
2023	623,548	25,788,108	241.8	2,434,874	23,733,657.1
<i>Prevalent drug abuse or dependence</i>					
<i>0-17 years</i>					
2010	19,227	7,534,754	25.52	77,280	6,025,645.8
2011	19,151	7,129,694	26.86	85,489	5,712,931.6
2012	18,857	7,245,232	26.03	84,185	5,426,017.0
2013	17,794	6,567,262	27.1	81,935	5,277,750.4
2014	19,309	7,165,877	26.95	83,481	5,776,245.6

**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2015	43,562	13,726,018	31.74	189,490	11,400,863.7
2016	58,867	33,897,316	17.37	293,801	17,196,296.2
2017	90,701	30,707,816	29.54	426,610	25,824,993.3
2018	103,883	33,570,719	30.94	480,404	28,249,185.4
2019	108,406	32,747,052	33.1	474,099	27,650,972.5
2020	97,677	38,078,456	25.65	431,506	30,315,689.2
2021	104,921	37,539,743	27.95	406,819	33,711,087.2
2022	17,310	6,880,258	25.16	65,942	5,672,454.1
2023	13,086	5,849,968	22.37	46,405	4,790,177.2
<i>18-43 years</i>					
2010	80,608	12,173,285	66.22	255,338	9,325,316.6
2011	186,495	12,778,747	145.94	774,235	9,910,160.2
2012	206,620	13,663,679	151.22	906,708	9,855,394.0
2013	217,063	12,548,735	172.98	1,013,307	9,781,599.9
2014	234,926	13,550,743	173.37	1,098,302	10,519,998.5
2015	336,306	17,054,339	197.2	1,355,740	13,146,331.2
2016	436,067	29,947,337	145.61	2,071,096	15,510,568.8
2017	739,633	29,102,496	254.15	3,761,582	22,458,005.9
2018	855,347	31,203,689	274.12	4,608,637	24,205,381.2
2019	878,955	30,828,516	285.11	4,975,736	24,025,805.4
2020	910,293	35,317,635	257.74	5,184,249	25,264,306.3
2021	1,079,817	35,792,472	301.69	5,863,625	29,897,020.7
2022	209,685	13,677,250	153.31	826,555	10,715,629.6
2023	180,056	12,836,629	140.27	681,729	10,102,180.5
<i>44-64 years</i>					
2010	55,844	10,486,545	53.25	136,221	8,687,602.8
2011	246,135	13,199,845	186.47	863,150	11,099,318.1
2012	274,694	13,848,316	198.36	976,991	10,983,579.6
2013	297,180	13,054,843	227.64	1,064,334	11,031,025.3
2014	331,967	14,141,168	234.75	1,158,940	11,827,365.7
2015	399,036	15,780,209	252.87	1,283,374	13,220,385.3
2016	383,324	22,872,924	167.59	1,438,200	14,483,960.3
2017	550,851	21,652,361	254.41	2,305,316	18,043,032.5
2018	627,756	22,450,919	279.61	2,853,709	18,783,426.5
2019	640,310	22,043,885	290.47	3,038,761	18,476,127.8
2020	606,437	23,793,221	254.88	2,931,827	18,423,560.3



**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2021	657,965	22,776,085	288.88	3,104,148	19,482,348.4
2022	269,030	12,998,330	206.97	934,118	10,871,911.7
2023	252,035	12,344,493	204.17	834,545	10,374,291.4
<i>≥ 65 years</i>					
2010	15,376	3,178,734	48.37	25,915	2,842,923.8
2011	107,226	15,889,082	67.48	224,709	14,583,907.1
2012	124,830	18,043,117	69.18	266,869	15,385,005.5
2013	140,651	17,688,467	79.52	306,147	16,227,715.5
2014	173,408	20,330,182	85.3	372,398	18,657,456.9
2015	204,253	21,404,260	95.43	421,635	19,592,350.2
2016	172,046	23,914,591	71.94	387,413	20,701,489.0
2017	206,170	23,351,701	88.29	478,891	21,399,607.8
2018	246,846	24,190,631	102.04	592,074	22,152,322.6
2019	277,441	24,596,886	112.8	688,940	22,537,413.6
2020	270,305	27,045,667	99.94	707,189	23,254,874.1
2021	305,112	25,924,678	117.69	800,179	23,722,485.0
2022	321,570	25,760,788	124.83	811,948	23,590,197.4
2023	344,545	25,788,108	133.61	865,614	23,733,657.1
<i>Prevalent history of Coronary Arterial Bypass Graft (CABG) or Percutaneous Transluminal Coronary Angioplasty (PTCA)</i>					
<i>0-17 years</i>					
2010	126	7,534,754	0.17	194	6,025,645.8
2011	110	7,129,694	0.15	176	5,712,931.6
2012	137	7,245,232	0.19	273	5,426,017.0
2013	121	6,567,262	0.18	190	5,277,750.4
2014	125	7,165,877	0.17	154	5,776,245.6
2015	302	13,726,018	0.22	403	11,400,863.7
2016	466	33,897,316	0.14	966	17,196,296.2
2017	654	30,707,816	0.21	904	25,824,993.3
2018	844	33,570,719	0.25	1,218	28,249,185.4
2019	1,268	32,747,052	0.39	1,601	27,650,972.5
2020	990	38,078,456	0.26	1,233	30,315,689.2
2021	815	37,539,743	0.22	1,370	33,711,087.2
2022	226	6,880,258	0.33	427	5,672,454.1
2023	216	5,849,968	0.37	425	4,790,177.2
<i>18-43 years</i>					
2010	5,384	12,173,285	4.42	16,472	9,325,316.6

**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2011	12,460	12,778,747	9.75	43,514	9,910,160.2
2012	12,474	13,663,679	9.13	43,594	9,855,394.0
2013	12,082	12,548,735	9.63	42,373	9,781,599.9
2014	12,094	13,550,743	8.92	43,679	10,519,998.5
2015	13,597	17,054,339	7.97	48,518	13,146,331.2
2016	16,453	29,947,337	5.49	60,939	15,510,568.8
2017	19,864	29,102,496	6.83	69,344	22,458,005.9
2018	21,481	31,203,689	6.88	74,004	24,205,381.2
2019	22,564	30,828,516	7.32	73,369	24,025,805.4
2020	21,219	35,317,635	6.01	64,250	25,264,306.3
2021	18,638	35,792,472	5.21	61,369	29,897,020.7
2022	9,307	13,677,250	6.8	34,535	10,715,629.6
2023	8,408	12,836,629	6.55	32,916	10,102,180.5
<i>44-64 years</i>					
2010	103,672	10,486,545	98.86	327,420	8,687,602.8
2011	242,725	13,199,845	183.88	811,709	11,099,318.1
2012	243,726	13,848,316	176	823,291	10,983,579.6
2013	243,764	13,054,843	186.72	830,301	11,031,025.3
2014	256,046	14,141,168	181.06	888,969	11,827,365.7
2015	284,136	15,780,209	180.06	998,994	13,220,385.3
2016	334,491	22,872,924	146.24	1,262,522	14,483,960.3
2017	376,155	21,652,361	173.72	1,427,131	18,043,032.5
2018	387,460	22,450,919	172.58	1,462,566	18,783,426.5
2019	381,792	22,043,885	173.2	1,484,317	18,476,127.8
2020	339,452	23,793,221	142.67	1,218,616	18,423,560.3
2021	329,361	22,776,085	144.61	1,227,312	19,482,348.4
2022	228,412	12,998,330	175.72	908,064	10,871,911.7
2023	212,105	12,344,493	171.82	862,233	10,374,291.4
<i>≥ 65 years</i>					
2010	169,706	3,178,734	533.88	508,618	2,842,923.8
2011	1,169,042	15,889,082	735.75	3,959,542	14,583,907.1
2012	1,234,508	18,043,117	684.2	4,181,755	15,385,005.5
2013	1,284,121	17,688,467	725.97	4,395,346	16,227,715.5
2014	1,461,198	20,330,182	718.73	5,065,463	18,657,456.9
2015	1,604,443	21,404,260	749.59	5,708,477	19,592,350.2
2016	1,812,430	23,914,591	757.88	7,176,549	20,701,489.0

**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2017	1,893,350	23,351,701	810.8	7,744,489	21,399,607.8
2018	1,951,892	24,190,631	806.88	8,163,910	22,152,322.6
2019	2,029,617	24,596,886	825.15	8,862,123	22,537,413.6
2020	1,892,530	27,045,667	699.75	7,544,479	23,254,874.1
2021	1,937,491	25,924,678	747.35	8,252,529	23,722,485.0
2022	1,907,283	25,760,788	740.38	8,178,984	23,590,197.4
2023	1,889,587	25,788,108	732.74	8,314,598	23,733,657.1

*Prevalent history of sudden cardiac arrest*

*0-17 years*

2010	503	7,534,754	0.67	842	6,025,645.8
2011	492	7,129,694	0.69	858	5,712,931.6
2012	516	7,245,232	0.71	1,124	5,426,017.0
2013	548	6,567,262	0.83	1,061	5,277,750.4
2014	522	7,165,877	0.73	1,225	5,776,245.6
2015	1,594	13,726,018	1.16	6,169	11,400,863.7
2016	2,873	33,897,316	0.85	9,605	17,196,296.2
2017	4,713	30,707,816	1.53	16,873	25,824,993.3
2018	5,261	33,570,719	1.57	20,663	28,249,185.4
2019	5,399	32,747,052	1.65	23,392	27,650,972.5
2020	5,700	38,078,456	1.5	25,296	30,315,689.2
2021	7,017	37,539,743	1.87	30,287	33,711,087.2
2022	788	6,880,258	1.15	2,897	5,672,454.1
2023	633	5,849,968	1.08	2,326	4,790,177.2

*18-43 years*

2010	2,268	12,173,285	1.86	3,517	9,325,316.6
2011	7,115	12,778,747	5.57	18,545	9,910,160.2
2012	7,543	13,663,679	5.52	20,493	9,855,394.0
2013	7,882	12,548,735	6.28	21,909	9,781,599.9
2014	7,940	13,550,743	5.86	22,632	10,519,998.5
2015	10,530	17,054,339	6.17	31,489	13,146,331.2
2016	14,220	29,947,337	4.75	41,889	15,510,568.8
2017	22,441	29,102,496	7.71	63,458	22,458,005.9
2018	23,797	31,203,689	7.63	72,539	24,205,381.2
2019	23,281	30,828,516	7.55	77,897	24,025,805.4
2020	28,164	35,317,635	7.97	92,421	25,264,306.3
2021	33,843	35,792,472	9.46	111,209	29,897,020.7

**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2022	8,370	13,677,250	6.12	32,169	10,715,629.6
2023	7,357	12,836,629	5.73	29,816	10,102,180.5
<i>44-64 years</i>					
2010	9,373	10,486,545	8.94	14,166	8,687,602.8
2011	36,966	13,199,845	28	97,720	11,099,318.1
2012	38,994	13,848,316	28.16	104,524	10,983,579.6
2013	40,866	13,054,843	31.3	115,261	11,031,025.3
2014	44,103	14,141,168	31.19	128,032	11,827,365.7
2015	50,902	15,780,209	32.26	148,090	13,220,385.3
2016	58,140	22,872,924	25.42	177,019	14,483,960.3
2017	76,464	21,652,361	35.31	234,070	18,043,032.5
2018	77,290	22,450,919	34.43	253,020	18,783,426.5
2019	74,315	22,043,885	33.71	259,023	18,476,127.8
2020	84,603	23,793,221	35.56	288,196	18,423,560.3
2021	88,381	22,776,085	38.8	300,155	19,482,348.4
2022	41,529	12,998,330	31.95	145,277	10,871,911.7
2023	36,504	12,344,493	29.57	124,781	10,374,291.4
<i>≥ 65 years</i>					
2010	15,112	3,178,734	47.54	20,932	2,842,923.8
2011	124,693	15,889,082	78.48	278,008	14,583,907.1
2012	131,302	18,043,117	72.77	300,134	15,385,005.5
2013	141,394	17,688,467	79.94	335,236	16,227,715.5
2014	159,890	20,330,182	78.65	388,881	18,657,456.9
2015	167,223	21,404,260	78.13	416,938	19,592,350.2
2016	171,706	23,914,591	71.8	446,268	20,701,489.0
2017	186,483	23,351,701	79.86	495,063	21,399,607.8
2018	183,164	24,190,631	75.72	505,659	22,152,322.6
2019	183,636	24,596,886	74.66	525,460	22,537,413.6
2020	205,187	27,045,667	75.87	559,985	23,254,874.1
2021	208,229	25,924,678	80.32	583,961	23,722,485.0
2022	193,026	25,760,788	74.93	547,612	23,590,197.4
2023	179,151	25,788,108	69.47	516,915	23,733,657.1

**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
<b>Capture of Other Confounding Covariates</b>					
<i>Has diagnosis code that indicates a range of Body Mass Index (BMI)</i>					
<i>0-17 years</i>					
2010	51,732	7,534,754	68.66	56,914	6,025,645.8
2011	72,364	7,129,694	101.5	81,812	5,712,931.6
2012	105,198	7,245,232	145.2	117,173	5,426,017.0
2013	151,984	6,567,262	231.43	170,196	5,277,750.4
2014	263,416	7,165,877	367.6	293,718	5,776,245.6
2015	787,980	13,726,018	574.08	899,532	11,400,863.7
2016	1,354,622	33,897,316	399.63	1,608,833	17,196,296.2
2017	2,528,476	30,707,816	823.4	3,129,718	25,824,993.3
2018	3,483,319	33,570,719	1,037.61	4,467,802	28,249,185.4
2019	4,029,998	32,747,052	1,230.64	5,191,731	27,650,972.5
2020	4,333,781	38,078,456	1,138.12	5,274,752	30,315,689.2
2021	5,275,309	37,539,743	1,405.26	6,568,263	33,711,087.2
2022	1,589,560	6,880,258	2,310.32	2,049,130	5,672,454.1
2023	1,417,065	5,849,968	2,422.35	1,827,723	4,790,177.2
<i>18-43 years</i>					
2010	46,824	12,173,285	38.46	69,027	9,325,316.6
2011	108,825	12,778,747	85.16	183,420	9,910,160.2
2012	179,291	13,663,679	131.22	301,700	9,855,394.0
2013	286,859	12,548,735	228.6	488,134	9,781,599.9
2014	443,568	13,550,743	327.34	773,952	10,519,998.5
2015	740,054	17,054,339	433.94	1,288,453	13,146,331.2
2016	1,204,462	29,947,337	402.19	2,221,046	15,510,568.8
2017	2,172,522	29,102,496	746.51	3,917,008	22,458,005.9
2018	2,831,219	31,203,689	907.33	5,246,433	24,205,381.2
2019	2,988,377	30,828,516	969.35	5,586,416	24,025,805.4
2020	2,681,254	35,317,635	759.18	4,776,076	25,264,306.3
2021	3,208,649	35,792,472	896.46	5,804,469	29,897,020.7
2022	1,827,858	13,677,250	1,336.42	3,659,371	10,715,629.6
2023	1,916,275	12,836,629	1,492.82	3,818,942	10,102,180.5
<i>44-64 years</i>					
2010	73,903	10,486,545	70.47	108,474	8,687,602.8
2011	261,903	13,199,845	198.41	449,218	11,099,318.1
2012	414,579	13,848,316	299.37	746,300	10,983,579.6

**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2013	630,416	13,054,843	482.9	1,188,261	11,031,025.3
2014	932,721	14,141,168	659.58	1,836,797	11,827,365.7
2015	1,403,623	15,780,209	889.48	2,859,722	13,220,385.3
2016	2,136,635	22,872,924	934.13	4,726,761	14,483,960.3
2017	3,182,570	21,652,361	1,469.85	7,120,853	18,043,032.5
2018	3,889,107	22,450,919	1,732.27	8,971,087	18,783,426.5
2019	4,122,008	22,043,885	1,869.91	9,700,175	18,476,127.8
2020	3,600,113	23,793,221	1,513.08	7,976,146	18,423,560.3
2021	3,938,370	22,776,085	1,729.17	9,001,073	19,482,348.4
2022	3,089,903	12,998,330	2,377.15	7,597,883	10,871,911.7
2023	3,152,210	12,344,493	2,553.54	7,786,152	10,374,291.4
<i>≥ 65 years</i>					
2010	34,757	3,178,734	109.34	48,705	2,842,923.8
2011	498,398	15,889,082	313.67	774,103	14,583,907.1
2012	858,224	18,043,117	475.65	1,609,073	15,385,005.5
2013	1,344,280	17,688,467	759.98	2,681,180	16,227,715.5
2014	2,101,865	20,330,182	1,033.86	4,384,201	18,657,456.9
2015	2,975,476	21,404,260	1,390.13	6,543,336	19,592,350.2
2016	4,279,782	23,914,591	1,789.61	10,129,853	20,701,489.0
2017	5,667,917	23,351,701	2,427.20	14,258,434	21,399,607.8
2018	6,824,612	24,190,631	2,821.18	18,081,980	22,152,322.6
2019	7,559,055	24,596,886	3,073.18	20,817,998	22,537,413.6
2020	7,037,599	27,045,667	2,602.12	17,656,554	23,254,874.1
2021	7,823,527	25,924,678	3,017.79	20,759,876	23,722,485.0
2022	8,065,251	25,760,788	3,130.82	21,855,241	23,590,197.4
2023	8,307,161	25,788,108	3,221.31	22,753,221	23,733,657.1
<i>Has diagnosis code that indicates a range of BMI that classifies as obesity</i>					
<i>0-17 years</i>					
2010	14,947	7,534,754	19.84	18,323	6,025,645.8
2011	20,993	7,129,694	29.44	25,650	5,712,931.6
2012	27,669	7,245,232	38.19	33,420	5,426,017.0
2013	34,665	6,567,262	52.78	42,179	5,277,750.4
2014	55,084	7,165,877	76.87	66,758	5,776,245.6
2015	173,454	13,726,018	126.37	212,049	11,400,863.7
2016	335,702	33,897,316	99.03	418,684	17,196,296.2
2017	672,411	30,707,816	218.97	877,876	25,824,993.3

**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2018	907,815	33,570,719	270.42	1,211,933	28,249,185.4
2019	1,035,635	32,747,052	316.25	1,380,297	27,650,972.5
2020	1,136,373	38,078,456	298.43	1,427,299	30,315,689.2
2021	1,530,056	37,539,743	407.58	1,964,671	33,711,087.2
2022	305,613	6,880,258	444.19	417,679	5,672,454.1
2023	233,501	5,849,968	399.15	321,372	4,790,177.2
<i>18-43 years</i>					
2010	37,882	12,173,285	31.12	57,299	9,325,316.6
2011	83,082	12,778,747	65.02	143,354	9,910,160.2
2012	122,580	13,663,679	89.71	213,695	9,855,394.0
2013	178,422	12,548,735	142.18	317,521	9,781,599.9
2014	263,864	13,550,743	194.72	485,281	10,519,998.5
2015	437,217	17,054,339	256.37	799,838	13,146,331.2
2016	710,457	29,947,337	237.24	1,381,512	15,510,568.8
2017	1,226,266	29,102,496	421.36	2,328,434	22,458,005.9
2018	1,566,392	31,203,689	501.99	3,058,827	24,205,381.2
2019	1,602,658	30,828,516	519.86	3,183,384	24,025,805.4
2020	1,479,594	35,317,635	418.94	2,814,253	25,264,306.3
2021	1,810,659	35,792,472	505.88	3,490,015	29,897,020.7
2022	1,048,833	13,677,250	766.84	2,255,928	10,715,629.6
2023	1,089,355	12,836,629	848.63	2,357,628	10,102,180.5
<i>44-64 years</i>					
2010	62,665	10,486,545	59.76	93,527	8,687,602.8
2011	205,353	13,199,845	155.57	362,668	11,099,318.1
2012	303,012	13,848,316	218.81	557,634	10,983,579.6
2013	433,224	13,054,843	331.85	832,835	11,031,025.3
2014	621,897	14,141,168	439.78	1,253,414	11,827,365.7
2015	922,531	15,780,209	584.61	1,921,399	13,220,385.3
2016	1,386,390	22,872,924	606.13	3,150,244	14,483,960.3
2017	1,988,087	21,652,361	918.18	4,591,513	18,043,032.5
2018	2,406,930	22,450,919	1,072.09	5,738,388	18,783,426.5
2019	2,541,323	22,043,885	1,152.85	6,207,366	18,476,127.8
2020	2,274,179	23,793,221	955.81	5,257,768	18,423,560.3
2021	2,520,671	22,776,085	1,106.72	6,009,627	19,482,348.4
2022	2,028,672	12,998,330	1,560.72	5,168,632	10,871,911.7
2023	2,071,647	12,344,493	1,678.20	5,303,510	10,374,291.4

**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
<i>≥ 65 years</i>					
2010	21,716	3,178,734	68.32	31,390	2,842,923.8
2011	266,164	15,889,082	167.51	427,187	14,583,907.1
2012	442,201	18,043,117	245.08	803,383	15,385,005.5
2013	670,090	17,688,467	378.83	1,288,913	16,227,715.5
2014	1,032,525	20,330,182	507.88	2,093,233	18,657,456.9
2015	1,467,415	21,404,260	685.57	3,134,496	19,592,350.2
2016	2,107,414	23,914,591	881.23	4,907,906	20,701,489.0
2017	2,757,704	23,351,701	1,180.94	6,842,669	21,399,607.8
2018	3,324,047	24,190,631	1,374.11	8,707,947	22,152,322.6
2019	3,709,183	24,596,886	1,507.99	10,138,010	22,537,413.6
2020	3,511,014	27,045,667	1,298.18	8,932,260	23,254,874.1
2021	3,963,187	25,924,678	1,528.73	10,625,578	23,722,485.0
2022	4,092,759	25,760,788	1,588.76	11,136,046	23,590,197.4
2023	4,238,380	25,788,108	1,643.54	11,679,190	23,733,657.1
<i>Has diagnosis code that indicates a range of BMI that classifies as overweight</i>					
<i>0-17 years</i>					
2010	8,644	7,534,754	11.47	9,110	6,025,645.8
2011	12,146	7,129,694	17.04	13,081	5,712,931.6
2012	17,612	7,245,232	24.31	18,752	5,426,017.0
2013	24,020	6,567,262	36.58	25,808	5,277,750.4
2014	40,554	7,165,877	56.59	43,715	5,776,245.6
2015	119,626	13,726,018	87.15	130,627	11,400,863.7
2016	213,658	33,897,316	63.03	238,041	17,196,296.2
2017	410,984	30,707,816	133.84	472,922	25,824,993.3
2018	573,938	33,570,719	170.96	681,820	28,249,185.4
2019	656,782	32,747,052	200.56	782,132	27,650,972.5
2020	686,499	38,078,456	180.29	783,247	30,315,689.2
2021	823,451	37,539,743	219.35	949,329	33,711,087.2
2022	228,669	6,880,258	332.36	271,546	5,672,454.1
2023	199,392	5,849,968	340.84	236,588	4,790,177.2
<i>18-43 years</i>					
2010	4,825	12,173,285	3.96	6,295	9,325,316.6
2011	12,400	12,778,747	9.7	16,430	9,910,160.2
2012	29,448	13,663,679	21.55	40,423	9,855,394.0
2013	56,810	12,548,735	45.27	81,139	9,781,599.9



**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2014	94,964	13,550,743	70.08	139,526	10,519,998.5
2015	162,374	17,054,339	95.21	241,092	13,146,331.2
2016	272,733	29,947,337	91.07	426,534	15,510,568.8
2017	512,089	29,102,496	175.96	800,172	22,458,005.9
2018	680,749	31,203,689	218.16	1,084,144	24,205,381.2
2019	736,127	30,828,516	238.78	1,176,564	24,025,805.4
2020	626,284	35,317,635	177.33	955,714	25,264,306.3
2021	736,250	35,792,472	205.7	1,130,152	29,897,020.7
2022	440,030	13,677,250	321.72	720,368	10,715,629.6
2023	463,320	12,836,629	360.94	751,975	10,102,180.5
<i>44-64 years</i>					
2010	6,739	10,486,545	6.43	8,724	8,687,602.8
2011	28,921	13,199,845	21.91	38,342	11,099,318.1
2012	66,297	13,848,316	47.87	99,097	10,983,579.6
2013	123,768	13,054,843	94.81	198,119	11,031,025.3
2014	202,473	14,141,168	143.18	337,554	11,827,365.7
2015	324,745	15,780,209	205.79	555,560	13,220,385.3
2016	524,034	22,872,924	229.11	960,484	14,483,960.3
2017	832,980	21,652,361	384.71	1,546,432	18,043,032.5
2018	1,037,816	22,450,919	462.26	1,971,040	18,783,426.5
2019	1,106,725	22,043,885	502.06	2,120,452	18,476,127.8
2020	921,268	23,793,221	387.2	1,656,692	18,423,560.3
2021	998,918	22,776,085	438.58	1,838,757	19,482,348.4
2022	790,282	12,998,330	607.99	1,533,940	10,871,911.7
2023	812,714	12,344,493	658.36	1,586,917	10,374,291.4
<i>≥ 65 years</i>					
2010	5,158	3,178,734	16.23	6,693	2,842,923.8
2011	100,115	15,889,082	63.01	139,327	14,583,907.1
2012	219,398	18,043,117	121.6	393,420	15,385,005.5
2013	382,482	17,688,467	216.23	718,947	16,227,715.5
2014	633,303	20,330,182	311.51	1,220,393	18,657,456.9
2015	929,725	21,404,260	434.36	1,852,631	19,592,350.2
2016	1,387,334	23,914,591	580.12	2,916,694	20,701,489.0
2017	1,908,069	23,351,701	817.1	4,200,552	21,399,607.8
2018	2,330,207	24,190,631	963.27	5,319,569	22,152,322.6
2019	2,572,738	24,596,886	1,045.96	6,027,607	22,537,413.6

**Table 4. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Age Group and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2020	2,322,225	27,045,667	858.63	4,935,774	23,254,874.1
2021	2,575,492	25,924,678	993.45	5,740,876	23,722,485.0
2022	2,644,835	25,760,788	1,026.69	6,013,754	23,590,197.4
2023	2,708,151	25,788,108	1050.15	6,201,933	23,733,657.1

<sup>1</sup>Eligible Members and Member-Years are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period.

**Table 5. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Sex and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
<b>Incident Capture (365-Day Washout) of Confounding Conditions</b>					
<i>Incident obesity</i>					
<i>Female</i>					
2010	453,793	16,336,066	277.79	453,793	13,236,114.4
2011	1,092,605	25,279,992	432.2	1,092,605	21,121,600.1
2012	1,252,048	26,933,736	464.86	1,252,048	21,002,701.9
2013	1,405,183	25,305,794	555.28	1,405,183	21,002,255.9
2014	1,689,982	27,605,182	612.2	1,689,982	22,760,831.1
2015	2,185,589	33,822,239	646.2	2,185,589	27,664,962.9
2016	2,714,617	54,251,585	500.38	2,714,617	32,235,071.7
2017	3,703,062	51,237,271	722.73	3,703,062	41,186,815.6
2018	4,115,379	53,886,760	763.71	4,115,379	43,113,481.0
2019	4,110,159	52,882,182	777.23	4,110,159	42,229,111.4
2020	3,961,821	59,579,814	664.96	3,961,821	44,415,343.3
2021	4,973,860	58,770,447	846.32	4,973,860	48,839,710.2
2022	2,534,959	27,255,993	930.06	2,534,959	21,813,560.8
2023	2,542,112	25,734,618	987.82	2,542,112	20,639,559.0
<i>Male</i>					
2010	294,490	15,603,329	188.74	294,490	12,668,651.2
2011	659,198	21,441,735	307.44	659,198	17,828,301.6
2012	781,742	23,117,358	338.16	781,742	17,856,087.4
2013	914,052	21,716,526	420.9	914,052	17,998,266.2
2014	1,145,683	24,077,939	475.82	1,145,683	19,815,739.3
2015	1,485,244	29,547,102	502.67	1,485,244	24,197,126.1
2016	1,898,926	48,175,198	394.17	1,898,926	28,607,273.0
2017	2,566,429	45,532,027	563.65	2,566,429	36,782,110.8
2018	2,928,878	48,018,684	609.95	2,928,878	38,618,669.8
2019	3,004,202	47,157,151	637.06	3,004,202	37,846,700.9
2020	2,919,804	53,180,499	549.04	2,919,804	39,858,049.3
2021	3,654,715	52,438,261	696.96	3,654,715	43,946,011.4
2022	1,979,497	24,447,325	809.7	1,979,497	19,519,335.7
2023	1,993,227	23,386,327	852.3	1,993,227	18,745,744.1
<i>Incident overweight</i>					
<i>Female</i>					
2010	79,370	16,594,952	47.83	79,370	13,758,228.8
2011	205,094	25,943,270	79.05	205,094	22,439,126.5

**Table 5. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Sex and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2012	310,632	27,814,108	111.68	310,632	22,464,955.8
2013	425,579	26,208,684	162.38	425,579	22,617,202.6
2014	613,236	28,726,406	213.47	613,236	24,650,134.7
2015	919,417	35,266,631	260.7	919,417	29,981,868.2
2016	1,292,685	57,056,237	226.56	1,292,685	34,998,562.8
2017	1,891,779	53,669,551	352.49	1,891,779	44,811,043.8
2018	2,191,590	56,709,397	386.46	2,191,590	47,169,058.3
2019	2,242,917	55,908,794	401.17	2,242,917	46,455,264.5
2020	1,929,950	63,086,358	305.92	1,929,950	48,867,210.8
2021	2,386,412	62,026,575	384.74	2,386,412	53,893,803.1
2022	1,556,841	29,699,520	524.2	1,556,841	24,776,106.3
2023	1,619,258	28,238,691	573.42	1,619,258	23,602,338.4
<i>Male</i>					
2010	56,710	15,750,022	36.01	56,710	12,983,626.0
2011	146,095	21,797,557	67.02	146,095	18,559,327.7
2012	230,344	23,612,885	97.55	230,344	18,681,027.3
2013	331,721	22,217,023	149.31	331,721	18,924,103.3
2014	492,174	24,720,583	199.09	492,174	20,929,550.2
2015	741,594	30,357,851	244.28	741,594	25,528,346.6
2016	1,067,477	49,691,777	214.82	1,067,477	30,178,001.4
2017	1,547,439	46,859,783	330.23	1,547,439	38,792,816.0
2018	1,812,790	49,557,742	365.79	1,812,790	40,871,477.5
2019	1,882,241	48,853,596	385.28	1,882,241	40,271,138.5
2020	1,650,119	55,145,490	299.23	1,650,119	42,489,109.6
2021	2,026,297	54,305,399	373.13	2,026,297	46,959,921.9
2022	1,381,803	25,893,442	533.65	1,381,803	21,306,508.0
2023	1,421,006	24,864,156	571.51	1,421,006	20,534,085.9
<i>Incident smoking</i>					
<i>Female</i>					
2010	434,095	16,333,403	265.77	434,095	13,259,872.5
2011	1,203,017	25,117,451	478.96	1,203,017	20,662,078.5
2012	1,358,305	26,795,014	506.92	1,358,305	20,800,659.8
2013	1,484,329	25,201,846	588.98	1,484,329	20,848,721.0
2014	1,813,751	27,577,761	657.69	1,813,751	22,656,985.2
2015	2,210,251	33,883,051	652.32	2,210,251	27,715,499.4
2016	2,654,557	54,587,188	486.3	2,654,557	32,271,482.1

**Table 5. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Sex and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2017	3,203,868	51,559,550	621.39	3,203,868	41,781,802.4
2018	3,407,503	54,605,182	624.03	3,407,503	44,282,287.7
2019	3,426,163	53,894,200	635.72	3,426,163	43,785,556.2
2020	2,975,354	60,893,364	488.62	2,975,354	46,230,104.2
2021	3,548,647	60,237,550	589.11	3,548,647	51,355,517.2
2022	2,097,927	28,664,920	731.88	2,097,927	23,434,658.2
2023	2,013,427	27,272,554	738.26	2,013,427	22,431,282.8
<i>Male</i>					
2010	444,623	15,514,472	286.59	444,623	12,488,130.6
2011	1,186,989	21,056,270	563.72	1,186,989	16,934,995.9
2012	1,349,756	22,658,202	595.7	1,349,756	17,060,520.6
2013	1,500,432	21,285,894	704.89	1,500,432	17,164,179.8
2014	1,832,719	23,621,421	775.87	1,832,719	18,898,739.2
2015	2,181,173	29,051,915	750.78	2,181,173	23,270,250.1
2016	2,606,621	47,466,199	549.15	2,606,621	27,507,433.8
2017	3,076,337	44,862,097	685.73	3,076,337	35,774,506.0
2018	3,262,978	47,523,006	686.61	3,262,978	37,929,265.5
2019	3,316,779	46,847,703	707.99	3,316,779	37,455,454.8
2020	2,939,176	52,910,977	555.49	2,939,176	39,693,104.0
2021	3,433,177	52,424,610	654.88	3,433,177	44,198,063.3
2022	2,259,575	24,658,244	916.36	2,259,575	19,531,094.2
2023	2,206,218	23,657,115	932.58	2,206,218	18,849,124.0
<i>Incident alcohol abuse or dependence</i>					
<i>Female</i>					
2010	56,524	16,586,784	34.08	56,524	13,770,703.2
2011	142,405	25,906,625	54.97	142,405	22,436,280.7
2012	149,677	27,820,773	53.8	149,677	22,554,667.1
2013	156,507	26,259,381	59.6	156,507	22,843,741.9
2014	172,333	28,860,716	59.71	172,333	25,083,109.4
2015	232,394	35,516,324	65.43	232,394	30,706,268.4
2016	300,313	57,758,828	51.99	300,313	36,080,943.1
2017	399,246	54,329,505	73.49	399,246	46,502,438.2
2018	446,790	57,680,291	77.46	446,790	49,464,328.2
2019	448,202	57,040,756	78.58	448,202	49,045,227.8
2020	424,660	64,342,339	66	424,660	51,387,064.5
2021	491,454	62,990,787	78.02	491,454	56,388,297.7

**Table 5. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Sex and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2022	231,695	30,796,461	75.23	231,695	26,954,719.8
2023	254,223	29,365,193	86.57	254,223	25,817,044.2
<i>Male</i>					
2010	102,099	15,705,419	65.01	102,099	12,915,508.2
2011	257,185	21,653,997	118.77	257,185	18,335,410.0
2012	272,489	23,480,205	116.05	272,489	18,512,964.6
2013	284,644	22,129,685	128.63	284,644	18,856,384.3
2014	315,512	24,692,752	127.78	315,512	21,020,526.5
2015	390,337	30,391,815	128.43	390,337	25,817,733.6
2016	470,583	49,883,879	94.34	470,583	30,709,728.7
2017	601,883	47,102,179	127.78	601,883	39,707,107.9
2018	664,610	50,030,543	132.84	664,610	42,258,029.7
2019	672,623	49,465,944	135.98	672,623	41,924,368.0
2020	631,041	55,813,225	113.06	631,041	44,108,888.9
2021	737,461	54,794,201	134.59	737,461	48,532,646.9
2022	394,283	26,700,815	147.67	394,283	22,957,304.0
2023	432,450	25,680,939	168.39	432,450	22,185,741.0
<i>Incident drug abuse or dependence</i>					
<i>Female</i>					
2010	64,595	16,589,229	38.94	64,595	13,769,141.4
2011	197,765	25,887,393	76.39	197,765	22,373,981.2
2012	216,957	27,791,197	78.07	216,957	22,475,690.9
2013	229,982	26,226,365	87.69	229,982	22,751,998.8
2014	264,818	28,825,351	91.87	264,818	24,976,745.0
2015	352,595	35,457,774	99.44	352,595	30,542,907.2
2016	380,130	57,671,679	65.91	380,130	35,939,555.5
2017	559,374	54,297,671	103.02	559,374	46,351,376.3
2018	638,350	57,626,401	110.77	638,350	49,258,848.0
2019	641,902	56,979,827	112.65	641,902	48,826,944.9
2020	613,536	64,230,827	95.52	613,536	51,148,542.5
2021	714,150	62,924,612	113.49	714,150	56,120,807.5
2022	271,218	30,802,265	88.05	271,218	26,923,869.1
2023	255,689	29,386,442	87.01	255,689	25,825,115.0
<i>Male</i>					
2010	69,910	15,731,288	44.44	69,910	12,963,795.8
2011	199,426	21,709,039	91.86	199,426	18,426,299.2

**Table 5. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Sex and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2012	217,231	23,541,559	92.28	217,231	18,599,092.5
2013	231,503	22,183,405	104.36	231,503	18,942,294.7
2014	262,571	24,754,000	106.07	262,571	21,113,317.2
2015	335,486	30,459,958	110.14	335,486	25,900,732.4
2016	368,713	50,034,040	73.69	368,713	30,857,130.1
2017	558,638	47,267,484	118.19	558,638	39,889,905.5
2018	637,645	50,195,530	127.03	637,645	42,417,533.1
2019	653,391	49,625,255	131.67	653,391	42,072,675.8
2020	618,264	55,974,781	110.45	618,264	44,237,208.4
2021	730,483	54,958,365	132.92	730,483	48,656,667.9
2022	278,646	26,857,271	103.75	278,646	23,175,555.1
2023	275,988	25,855,192	106.74	275,988	22,446,983.9

*Incident history of Coronary Arterial Bypass Graft (CABG) or Percutaneous Transluminal Cutaneous Angioplasty (PTCA)*

*Female*

2010	49,750	16,583,542	30	49,750	13,766,699.8
2011	355,485	25,743,705	138.09	355,485	22,120,880.4
2012	338,816	27,609,098	122.72	338,816	22,209,456.9
2013	335,675	26,067,124	128.77	335,675	22,506,916.9
2014	365,552	28,659,999	127.55	365,552	24,727,594.1
2015	399,141	35,335,747	112.96	399,141	30,400,879.2
2016	423,552	57,729,838	73.37	423,552	35,812,423.6
2017	412,973	54,195,014	76.2	412,973	46,359,621.6
2018	414,500	57,566,077	72	414,500	49,366,441.3
2019	425,670	56,935,781	74.76	425,670	48,960,546.2
2020	360,633	64,285,483	56.1	360,633	51,345,813.8
2021	379,886	62,946,618	60.35	379,886	56,447,025.2
2022	330,352	30,590,658	107.99	330,352	26,674,480.2
2023	317,941	29,176,785	108.97	317,941	25,570,192.4

*Male*

2010	123,357	15,672,309	78.71	123,357	12,855,825.9
2011	506,706	21,439,988	236.34	506,706	17,928,373.7
2012	506,059	23,182,810	218.29	506,059	18,064,041.6
2013	528,449	21,864,709	241.69	528,449	18,389,547.1
2014	605,581	24,380,754	248.38	605,581	20,465,637.5
2015	691,848	30,096,766	229.87	691,848	25,290,855.6
2016	747,198	49,736,289	150.23	747,198	30,152,269.0

**Table 5. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Sex and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2017	730,792	46,814,719	156.1	730,792	39,285,645.9
2018	739,138	49,753,103	148.56	739,138	41,873,331.0
2019	757,770	49,180,069	154.08	757,770	41,530,302.6
2020	685,035	55,577,707	123.26	685,035	43,756,993.3
2021	742,598	54,570,721	136.08	742,598	48,297,624.4
2022	661,744	26,170,083	252.86	661,744	22,202,779.3
2023	646,055	25,174,155	256.63	646,055	21,481,565.8

*Incident history of sudden cardiac arrest*

*Female*

2010	10,599	16,618,832	6.38	10,599	13,836,383.6
2011	81,546	25,985,430	31.38	81,546	22,598,712.3
2012	84,161	27,918,238	30.15	84,161	22,731,760.1
2013	88,801	26,351,899	33.7	88,801	23,031,228.1
2014	95,813	28,964,348	33.08	95,813	25,288,298.5
2015	102,110	35,652,630	28.64	102,110	30,974,029.6
2016	107,552	58,140,514	18.5	107,552	36,456,640.5
2017	123,850	54,607,545	22.68	123,850	47,033,942.5
2018	119,824	57,991,924	20.66	119,824	50,053,740.4
2019	116,254	57,371,050	20.26	116,254	49,659,194.2
2020	130,889	64,740,816	20.22	130,889	52,015,157.1
2021	134,478	63,330,027	21.23	134,478	57,062,057.4
2022	95,253	30,964,851	30.76	95,253	27,257,886.2
2023	84,752	29,541,465	28.69	84,752	26,139,892.9

*Male*

2010	15,413	15,765,111	9.78	15,413	13,035,476.8
2011	80,194	21,822,810	36.75	80,194	18,660,543.1
2012	85,219	23,687,471	35.98	85,219	18,866,547.3
2013	91,227	22,326,487	40.86	91,227	19,230,982.7
2014	103,669	24,912,145	41.61	103,669	21,429,807.2
2015	112,289	30,670,412	36.61	112,289	26,314,300.6
2016	120,682	50,541,540	23.88	120,682	31,354,178.8
2017	142,674	47,633,280	29.95	142,674	40,586,932.4
2018	142,790	50,620,328	28.21	142,790	43,225,938.5
2019	141,434	50,082,666	28.24	141,434	42,923,891.6
2020	162,304	56,554,702	28.7	162,304	45,132,633.5
2021	171,435	55,433,010	30.93	171,435	49,634,835.0



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	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2022	120,258	27,029,201	44.49	120,258	23,504,542.3
2023	110,248	26,025,708	42.36	110,248	22,773,201.1

**Prevalent Capture of Confounding Conditions**

*Prevalent obesity*

*Female*

2010	644,704	16,620,072	387.91	1,367,099	13,840,352.2
2011	1,651,335	25,991,937	635.33	4,326,029	22,622,132.8
2012	1,934,775	27,927,482	692.79	5,152,468	22,756,885.4
2013	2,261,023	26,360,038	857.75	6,096,706	23,057,766.4
2014	2,811,229	28,973,575	970.27	7,688,305	25,317,582.6
2015	3,693,359	35,663,779	1,035.61	10,068,640	31,006,886.6
2016	4,689,134	58,160,484	806.24	13,304,251	36,493,562.2
2017	6,490,320	54,623,746	1,188.19	18,210,248	47,081,763.0
2018	7,546,805	58,009,789	1,300.95	21,386,853	50,103,433.5
2019	7,886,507	57,389,186	1,374.21	22,860,618	49,706,143.7
2020	7,667,340	64,764,344	1,183.88	21,199,991	52,063,017.4
2021	8,895,083	63,349,537	1,404.13	25,127,337	57,111,424.1
2022	5,794,081	30,980,722	1,870.22	19,004,327	27,294,523.5
2023	5,918,095	29,556,919	2,002.27	20,138,653	26,175,809.1

*Male*

2010	401,278	15,767,023	254.5	755,276	13,041,136.8
2011	954,817	21,830,145	437.38	2,281,431	18,684,184.1
2012	1,158,647	23,698,652	488.91	2,807,884	18,893,110.7
2013	1,407,217	22,336,232	630.02	3,466,194	19,260,324.7
2014	1,826,587	24,923,770	732.87	4,530,959	21,463,484.2
2015	2,406,876	30,684,795	784.39	5,973,068	26,353,043.8
2016	3,121,873	50,568,118	617.36	8,013,849	31,398,752.1
2017	4,304,459	47,655,204	903.25	10,901,419	40,643,876.5
2018	5,101,772	50,645,139	1,007.36	13,034,670	43,286,882.2
2019	5,463,257	50,108,292	1,090.29	14,263,889	42,984,175.6
2020	5,370,227	56,588,187	949	13,380,412	45,195,412.4
2021	6,235,352	55,461,179	1,124.27	15,648,086	49,701,517.2
2022	4,231,085	27,052,770	1,564.01	12,391,289	23,555,669.3
2023	4,316,926	26,049,118	1,657.23	12,882,850	22,824,497.1

*Prevalent overweight*

*Female*

**Table 5. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Sex and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2010	90,897	16,620,072	54.69	129,305	13,840,352.2
2011	231,038	25,991,937	88.89	334,905	22,622,132.8
2012	363,822	27,927,482	130.27	581,781	22,756,885.4
2013	530,320	26,360,038	201.18	893,775	23,057,766.4
2014	790,571	28,973,575	272.86	1,379,357	25,317,582.6
2015	1,210,511	35,663,779	339.42	2,144,093	31,006,886.6
2016	1,737,162	58,160,484	298.68	3,243,214	36,493,562.2
2017	2,615,902	54,623,746	478.89	4,917,301	47,081,763.0
2018	3,205,036	58,009,789	552.5	6,198,986	50,103,433.5
2019	3,409,222	57,389,186	594.05	6,744,273	49,706,143.7
2020	3,026,549	64,764,344	467.32	5,538,583	52,063,017.4
2021	3,451,940	63,349,537	544.9	6,500,953	57,111,424.1
2022	2,617,089	30,980,722	844.75	5,551,814	27,294,523.5
2023	2,717,896	29,556,919	919.55	5,864,490	26,175,809.1
<i>Male</i>					
2010	64,267	15,767,023	40.76	84,644	13,041,136.8
2011	163,038	21,830,145	74.68	228,046	18,684,184.1
2012	269,756	23,698,652	113.83	427,343	18,893,110.7
2013	414,750	22,336,232	185.68	691,354	19,260,324.7
2014	638,316	24,923,770	256.11	1,093,181	21,463,484.2
2015	982,071	30,684,795	320.05	1,693,756	26,353,043.8
2016	1,438,291	50,568,118	284.43	2,609,814	31,398,752.1
2017	2,151,820	47,655,204	451.54	3,952,930	40,643,876.5
2018	2,658,357	50,645,139	524.9	5,029,777	43,286,882.2
2019	2,869,356	50,108,292	572.63	5,557,709	42,984,175.6
2020	2,592,902	56,588,187	458.21	4,686,644	45,195,412.4
2021	2,953,721	55,461,179	532.57	5,468,398	49,701,517.2
2022	2,335,856	27,052,770	863.44	4,806,253	23,555,669.3
2023	2,404,668	26,049,118	923.13	4,994,799	22,824,497.1
<i>Prevalent smoking</i>					
<i>Female</i>					
2010	614,903	16,620,072	369.98	1,106,427	13,840,352.2
2011	1,878,627	25,991,937	722.77	4,293,429	22,622,132.8
2012	2,151,587	27,927,482	770.42	5,141,018	22,756,885.4
2013	2,422,025	26,360,038	918.82	6,034,750	23,057,766.4
2014	2,957,952	28,973,575	1,020.91	7,535,670	25,317,582.6

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	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2015	3,654,001	35,663,779	1,024.57	9,433,436	31,006,886.6
2016	4,585,426	58,160,484	788.41	12,640,351	36,493,562.2
2017	5,676,779	54,623,746	1,039.25	15,666,545	47,081,763.0
2018	6,166,748	58,009,789	1,063.05	17,281,871	50,103,433.5
2019	6,279,441	57,389,186	1,094.19	18,177,994	49,706,143.7
2020	5,685,605	64,764,344	877.89	16,159,055	52,063,017.4
2021	6,147,969	63,349,537	970.48	17,273,638	57,111,424.1
2022	4,072,468	30,980,722	1,314.52	12,619,866	27,294,523.5
2023	3,979,209	29,556,919	1,346.29	12,496,242	26,175,809.1
<i>Male</i>					
2010	589,777	15,767,023	374.06	1,012,618	13,041,136.8
2011	1,761,635	21,830,145	806.97	3,960,368	18,684,184.1
2012	2,031,462	23,698,652	857.21	4,761,075	18,893,110.7
2013	2,324,335	22,336,232	1,040.61	5,664,935	19,260,324.7
2014	2,866,075	24,923,770	1,149.94	7,134,683	21,463,484.2
2015	3,470,886	30,684,795	1,131.14	8,852,781	26,353,043.8
2016	4,304,564	50,568,118	851.24	11,794,069	31,398,752.1
2017	5,274,816	47,655,204	1,106.87	14,629,669	40,643,876.5
2018	5,738,477	50,645,139	1,133.08	16,356,871	43,286,882.2
2019	5,933,248	50,108,292	1,184.09	17,620,213	42,984,175.6
2020	5,485,269	56,588,187	969.33	16,119,912	45,195,412.4
2021	5,933,358	55,461,179	1,069.82	17,260,026	49,701,517.2
2022	4,281,192	27,052,770	1,582.53	13,240,057	23,555,669.3
2023	4,248,048	26,049,118	1,630.78	13,262,831	22,824,497.1
<i>Prevalent alcohol abuse or dependence</i>					
<i>Female</i>					
2010	76,283	16,620,072	45.9	320,065	13,840,352.2
2011	203,848	25,991,937	78.43	922,902	22,622,132.8
2012	217,662	27,927,482	77.94	996,853	22,756,885.4
2013	230,920	26,360,038	87.6	1,075,042	23,057,766.4
2014	255,756	28,973,575	88.27	1,198,061	25,317,582.6
2015	338,805	35,663,779	95	1,627,746	31,006,886.6
2016	444,830	58,160,484	76.48	2,497,072	36,493,562.2
2017	612,022	54,623,746	112.04	3,894,278	47,081,763.0
2018	688,390	58,009,789	118.67	4,582,718	50,103,433.5
2019	707,319	57,389,186	123.25	4,943,759	49,706,143.7

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	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2020	695,391	64,764,344	107.37	5,211,693	52,063,017.4
2021	780,078	63,349,537	123.14	5,912,873	57,111,424.1
2022	375,362	30,980,722	121.16	1,869,107	27,294,523.5
2023	404,351	29,556,919	136.8	1,896,076	26,175,809.1
<i>Male</i>					
2010	138,890	15,767,023	88.09	544,046	13,041,136.8
2011	386,708	21,830,145	177.14	1,815,035	18,684,184.1
2012	415,078	23,698,652	175.15	1,988,076	18,893,110.7
2013	440,199	22,336,232	197.08	2,143,083	19,260,324.7
2014	488,116	24,923,770	195.84	2,378,917	21,463,484.2
2015	603,800	30,684,795	196.77	3,007,551	26,353,043.8
2016	747,954	50,568,118	147.91	4,324,822	31,398,752.1
2017	1,002,364	47,655,204	210.34	6,701,584	40,643,876.5
2018	1,116,302	50,645,139	220.42	7,895,652	43,286,882.2
2019	1,150,086	50,108,292	229.52	8,474,279	42,984,175.6
2020	1,127,763	56,588,187	199.29	8,635,716	45,195,412.4
2021	1,265,860	55,461,179	228.24	10,066,618	49,701,517.2
2022	670,687	27,052,770	247.92	3,350,514	23,555,669.3
2023	723,865	26,049,118	277.88	3,425,556	22,824,497.1
<i>Prevalent drug abuse or dependence</i>					
<i>Female</i>					
2010	81,221	16,620,072	48.87	214,115	13,840,352.2
2011	271,047	25,991,937	104.28	858,058	22,622,132.8
2012	303,944	27,927,482	108.83	981,365	22,756,885.4
2013	326,433	26,360,038	123.84	1,083,255	23,057,766.4
2014	371,547	28,973,575	128.24	1,201,455	25,317,582.6
2015	492,604	35,663,779	138.12	1,513,314	31,006,886.6
2016	521,983	58,160,484	89.75	2,028,090	36,493,562.2
2017	775,546	54,623,746	141.98	3,325,501	47,081,763.0
2018	896,359	58,009,789	154.52	4,024,585	50,103,433.5
2019	922,602	57,389,186	160.76	4,287,920	49,706,143.7
2020	912,796	64,764,344	140.94	4,337,054	52,063,017.4
2021	1,034,786	63,349,537	163.35	4,714,265	57,111,424.1
2022	398,947	30,980,722	128.77	1,239,014	27,294,523.5
2023	375,894	29,556,919	127.18	1,097,911	26,175,809.1

*Male*

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	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2010	88,728	15,767,023	56.27	280,639	13,041,136.8
2011	284,567	21,830,145	130.36	1,089,525	18,684,184.1
2012	317,310	23,698,652	133.89	1,253,388	18,893,110.7
2013	342,131	22,336,232	153.17	1,382,468	19,260,324.7
2014	383,468	24,923,770	153.86	1,511,666	21,463,484.2
2015	485,482	30,684,795	158.22	1,736,925	26,353,043.8
2016	522,910	50,568,118	103.41	2,162,420	31,398,752.1
2017	803,890	47,655,204	168.69	3,646,898	40,643,876.5
2018	928,258	50,645,139	183.29	4,510,239	43,286,882.2
2019	972,322	50,108,292	194.04	4,889,616	42,984,175.6
2020	961,277	56,588,187	169.87	4,917,717	45,195,412.4
2021	1,100,892	55,461,179	198.5	5,460,506	49,701,517.2
2022	413,682	27,052,770	152.92	1,399,549	23,555,669.3
2023	409,236	26,049,118	157.1	1,330,382	22,824,497.1

*Prevalent history of CABG or PTCA*

*Female*

2010	79,047	16,620,072	47.56	237,641	13,840,352.2
2011	574,274	25,991,937	220.94	1,881,187	22,622,132.8
2012	591,934	27,927,482	211.95	1,952,992	22,756,885.4
2013	593,691	26,360,038	225.22	1,963,896	23,057,766.4
2014	641,691	28,973,575	221.47	2,139,012	25,317,582.6
2015	687,482	35,663,779	192.77	2,352,821	31,006,886.6
2016	763,603	58,160,484	131.29	2,904,404	36,493,562.2
2017	795,950	54,623,746	145.72	3,107,339	47,081,763.0
2018	811,227	58,009,789	139.84	3,207,725	50,103,433.5
2019	830,338	57,389,186	144.69	3,426,341	49,706,143.7
2020	743,320	64,764,344	114.77	2,831,820	52,063,017.4
2021	735,708	63,349,537	116.13	3,015,931	57,111,424.1
2022	676,875	30,980,722	218.48	2,825,250	27,294,523.5
2023	658,448	29,556,919	222.77	2,825,757	26,175,809.1

*Male*

2010	198,738	15,767,023	126.05	615,063	13,041,136.8
2011	846,016	21,830,145	387.54	2,933,754	18,684,184.1
2012	894,481	23,698,652	377.44	3,095,921	18,893,110.7
2013	942,103	22,336,232	421.78	3,304,314	19,260,324.7
2014	1,083,007	24,923,770	434.53	3,859,253	21,463,484.2

**Table 5. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Sex and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2015	1,209,903	30,684,795	394.3	4,403,571	26,353,043.8
2016	1,393,293	50,568,118	275.53	5,596,572	31,398,752.1
2017	1,486,707	47,655,204	311.97	6,134,529	40,643,876.5
2018	1,543,094	50,645,139	304.69	6,493,973	43,286,882.2
2019	1,597,377	50,108,292	318.78	6,995,069	42,984,175.6
2020	1,504,219	56,588,187	265.82	5,996,758	45,195,412.4
2021	1,544,009	55,461,179	278.39	6,526,649	49,701,517.2
2022	1,462,467	27,052,770	540.6	6,296,760	23,555,669.3
2023	1,446,380	26,049,118	555.25	6,384,415	22,824,497.1

*Prevalent history of sudden cardiac arrest*

*Female*

2010	11,059	16,620,072	6.65	15,716	13,840,352.2
2011	85,031	25,991,937	32.71	198,810	22,622,132.8
2012	88,193	27,927,482	31.58	212,708	22,756,885.4
2013	93,473	26,360,038	35.46	231,072	23,057,766.4
2014	101,324	28,973,575	34.97	256,986	25,317,582.6
2015	108,863	35,663,779	30.52	282,887	31,006,886.6
2016	115,311	58,160,484	19.83	312,465	36,493,562.2
2017	133,743	54,623,746	24.48	368,021	47,081,763.0
2018	130,847	58,009,789	22.56	379,189	50,103,433.5
2019	128,081	57,389,186	22.32	391,423	49,706,143.7
2020	143,318	64,764,344	22.13	428,425	52,063,017.4
2021	147,076	63,349,537	23.22	442,454	57,111,424.1
2022	106,240	30,980,722	34.29	312,251	27,294,523.5
2023	95,775	29,556,919	32.4	281,174	26,175,809.1

*Male*

2010	16,174	15,767,023	10.26	23,741	13,041,136.8
2011	84,137	21,830,145	38.54	196,321	18,684,184.1
2012	90,053	23,698,652	38	213,567	18,893,110.7
2013	97,090	22,336,232	43.47	242,395	19,260,324.7
2014	110,980	24,923,770	44.53	283,784	21,463,484.2
2015	121,191	30,684,795	39.5	319,799	26,353,043.8
2016	131,387	50,568,118	25.98	362,316	31,398,752.1
2017	156,062	47,655,204	32.75	441,443	40,643,876.5
2018	158,322	50,645,139	31.26	472,692	43,286,882.2
2019	158,201	50,108,292	31.57	494,349	42,984,175.6

**Table 5. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Sex and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2020	179,971	56,588,187	31.8	537,473	45,195,412.4
2021	190,023	55,461,179	34.26	583,158	49,701,517.2
2022	137,199	27,052,770	50.72	415,704	23,555,669.3
2023	127,586	26,049,118	48.98	392,664	22,824,497.1

**Capture of Other Confounding Covariates**

*Has diagnosis code that indicates a range of Body Mass Index (BMI)*

*Female*

2010	125,973	16,620,072	75.8	178,659	13,840,352.2
2011	592,189	25,991,937	227.84	953,539	22,622,132.8
2012	959,307	27,927,482	343.5	1,731,483	22,756,885.4
2013	1,459,892	26,360,038	553.83	2,783,656	23,057,766.4
2014	2,230,929	28,973,575	769.99	4,435,010	25,317,582.6
2015	3,470,807	35,663,779	973.2	6,989,070	31,006,886.6
2016	5,230,963	58,160,484	899.4	11,212,480	36,493,562.2
2017	7,885,182	54,623,746	1,443.54	17,034,423	47,081,763.0
2018	9,857,190	58,009,789	1,699.23	21,945,670	50,103,433.5
2019	10,720,111	57,389,186	1,867.97	24,439,504	49,706,143.7
2020	10,031,563	64,764,344	1,548.93	20,858,625	52,063,017.4
2021	11,492,672	63,349,537	1,814.17	24,721,257	57,111,424.1
2022	8,299,442	30,980,722	2,678.91	20,705,766	27,294,523.5
2023	8,428,449	29,556,919	2,851.60	21,358,114	26,175,809.1

*Male*

2010	80,907	15,767,023	51.31	104,461	13,041,136.8
2011	347,574	21,830,145	159.22	535,014	18,684,184.1
2012	594,431	23,698,652	250.83	1,042,763	18,893,110.7
2013	947,233	22,336,232	424.08	1,744,115	19,260,324.7
2014	1,499,660	24,923,770	601.7	2,853,658	21,463,484.2
2015	2,418,464	30,684,795	788.16	4,601,973	26,353,043.8
2016	3,713,366	50,568,118	734.33	7,474,013	31,398,752.1
2017	5,617,892	47,655,204	1,178.86	11,391,590	40,643,876.5
2018	7,105,491	50,645,139	1,403.00	14,821,632	43,286,882.2
2019	7,905,740	50,108,292	1,577.73	16,856,816	42,984,175.6
2020	7,559,402	56,588,187	1,335.86	14,824,903	45,195,412.4
2021	8,681,361	55,461,179	1,565.30	17,412,424	49,701,517.2
2022	6,211,174	27,052,770	2,295.95	14,455,859	23,555,669.3
2023	6,300,114	26,049,118	2,418.55	14,827,924	22,824,497.1

**Table 5. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Sex and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
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*Has diagnosis code that indicates a range of BMI that classifies as obesity*

*Female*

2010	86,971	16,620,072	52.33	131,418	13,840,352.2
2011	375,499	25,991,937	144.47	637,953	22,622,132.8
2012	568,101	27,927,482	203.42	1,038,787	22,756,885.4
2013	816,388	26,360,038	309.71	1,570,221	23,057,766.4
2014	1,198,928	28,973,575	413.8	2,426,529	25,317,582.6
2015	1,806,071	35,663,779	506.42	3,750,918	31,006,886.6
2016	2,706,708	58,160,484	465.39	6,055,891	36,493,562.2
2017	3,963,227	54,623,746	725.55	8,997,060	47,081,763.0
2018	4,865,769	58,009,789	838.78	11,451,948	50,103,433.5
2019	5,194,014	57,389,186	905.05	12,640,406	49,706,143.7
2020	4,877,546	64,764,344	753.12	11,034,245	52,063,017.4
2021	5,695,592	63,349,537	899.07	13,284,683	57,111,424.1
2022	4,297,684	30,980,722	1,387.21	11,362,261	27,294,523.5
2023	4,385,988	29,556,919	1,483.91	11,786,316	26,175,809.1

*Male*

2010	49,954	15,767,023	31.68	69,121	13,041,136.8
2011	198,669	21,830,145	91.01	320,906	18,684,184.1
2012	324,836	23,698,652	137.07	569,345	18,893,110.7
2013	495,763	22,336,232	221.95	911,227	19,260,324.7
2014	767,240	24,923,770	307.83	1,472,157	21,463,484.2
2015	1,183,240	30,684,795	385.61	2,316,864	26,353,043.8
2016	1,813,490	50,568,118	358.62	3,802,455	31,398,752.1
2017	2,652,113	47,655,204	556.52	5,643,432	40,643,876.5
2018	3,300,787	50,645,139	651.75	7,265,147	43,286,882.2
2019	3,651,911	50,108,292	728.8	8,268,651	42,984,175.6
2020	3,486,747	56,588,187	616.16	7,397,335	45,195,412.4
2021	4,085,899	55,461,179	736.71	8,805,208	49,701,517.2
2022	3,139,883	27,052,770	1,160.65	7,616,024	23,555,669.3
2023	3,207,088	26,049,118	1,231.17	7,875,384	22,824,497.1

*Has diagnosis code that indicates a range of BMI that classifies as overweight*

*Female*

2010	14,253	16,620,072	8.58	17,825	13,840,352.2
2011	86,588	25,991,937	33.31	117,017	22,622,132.8
2012	184,708	27,927,482	66.14	305,727	22,756,885.4



**Table 5. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023, by Sex and Year**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
2013	320,694	26,360,038	121.66	562,461	23,057,766.4
2014	524,779	28,973,575	181.12	951,043	25,317,582.6
2015	828,483	35,663,779	232.3	1,521,155	31,006,886.6
2016	1,289,099	58,160,484	221.65	2,482,672	36,493,562.2
2017	1,980,124	54,623,746	362.5	3,846,197	47,081,763.0
2018	2,499,448	58,009,789	430.87	4,959,555	50,103,433.5
2019	2,728,274	57,389,186	475.4	5,503,918	49,706,143.7
2020	2,430,765	64,764,344	375.32	4,473,828	52,063,017.4
2021	2,739,406	63,349,537	432.43	5,199,799	57,111,424.1
2022	2,147,958	30,980,722	693.32	4,540,527	27,294,523.5
2023	2,193,281	29,556,919	742.05	4,687,702	26,175,809.1
<i>Male</i>					
2010	11,094	15,767,023	7.04	12,997	13,041,136.8
2011	66,878	21,830,145	30.64	90,163	18,684,184.1
2012	147,578	23,698,652	62.27	245,965	18,893,110.7
2013	265,345	22,336,232	118.8	461,552	19,260,324.7
2014	444,689	24,923,770	178.42	790,145	21,463,484.2
2015	704,767	30,684,795	229.68	1,258,755	26,353,043.8
2016	1,102,897	50,568,118	218.1	2,059,081	31,398,752.1
2017	1,674,599	47,655,204	351.4	3,173,881	40,643,876.5
2018	2,110,779	50,645,139	416.78	4,097,018	43,286,882.2
2019	2,330,111	50,108,292	465.02	4,602,837	42,984,175.6
2020	2,114,456	56,588,187	373.66	3,857,599	45,195,412.4
2021	2,381,877	55,461,179	429.47	4,459,315	49,701,517.2
2022	1,944,377	27,052,770	718.73	3,999,081	23,555,669.3
2023	1,978,467	26,049,118	759.51	4,089,711	22,824,497.1

<sup>1</sup>Eligible Members and Member-Years are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period.

**Table 6. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2020 to December 31, 2021, by Race and Sex**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
<b>Capture of Other Confounding Covariates</b>					
<i>Has non-missing value for reported race<sup>2</sup></i>					
<i>American Indian or Alaska Native</i>					
Female	549,769	607,244	9,053.51	549,769	N/A
Male	448,275	519,548	8,628.17	448,275	N/A
<i>Asian</i>					
Female	2,245,791	2,581,325	8,700.15	2,245,791	N/A
Male	1,837,737	2,193,748	8,377.16	1,837,737	N/A
<i>Black or African American</i>					
Female	8,782,698	9,826,421	8,937.84	8,782,698	N/A
Male	6,628,187	7,852,671	8,440.68	6,628,187	N/A
<i>Multi-racial</i>					
Female	596,360	651,352	9,155.73	596,360	N/A
Male	509,205	573,111	8,884.93	509,205	N/A
<i>Native Hawaiian or Other Pacific Islander</i>					
Female	207,815	245,949	8,449.52	207,815	N/A
Male	183,926	227,589	8,081.50	183,926	N/A
<i>Unknown</i>					
Female	21,689,042	25,755,048	8,421.28	21,689,042	N/A
Male	20,090,103	25,424,410	7,901.90	20,090,103	N/A
<i>White</i>					
Female	30,725,123	33,163,813	9,264.65	30,725,123	N/A
Male	24,304,336	27,113,080	8,964.06	24,304,336	N/A
<i>Has non-missing value for imputed race<sup>3</sup></i>					
<i>American Indian or Alaska Native</i>					
Female	67,129	69,382	9,675.28	67,129	N/A
Male	48,057	51,153	9,394.76	48,057	N/A
<i>Asian</i>					
Female	474,439	519,453	9,133.43	474,439	N/A
Male	363,074	411,635	8,820.29	363,074	N/A
<i>Black or African American</i>					
Female	1,374,499	1,486,988	9,243.51	1,374,499	N/A
Male	946,889	1,080,960	8,759.70	946,889	N/A
<i>Multi-racial</i>					
Female	*****	*****	8,482.14	*****	N/A
Male	*****	*****	8,979.59	*****	N/A

**Table 6. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2020 to December 31, 2021, by Race and Sex**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
<i>Native Hawaiian or Other Pacific Islander</i>					
Female	*****	*****	6,000.00	*****	N/A
Male	*****	*****	10,000.00	*****	N/A
<i>Unknown</i>					
Female	2,373,730	2,697,579	8,799.48	2,373,730	N/A
Male	2,354,494	2,871,848	8,198.53	2,354,494	N/A
<i>White</i>					
Female	12,753,996	13,340,180	9,560.59	12,753,996	N/A
Male	9,929,055	10,701,025	9,278.60	9,929,055	N/A

<sup>1</sup>Eligible Members and Member-Years are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period.

<sup>2</sup>If race is not reported, reported race is classified as "Unknown" which is a non-missing value in the Sentinel Database. The purpose of the "Has non-missing reported race" cohort was to describe all enrollees in the data with at least one encounter qualifying the inclusion criteria during 2020-2021.

<sup>3</sup>Only four DPs impute race; for all other DPs, imputed race data is unavailable. DPs have their own methods of imputing and race may not be imputed for all enrollees. DPs can impute the race of any enrollee, regardless of whether their reported race is "Unknown." As a result, even among DPs that perform imputation, enrollees with any value for reported race may receive any imputed race value, including "Unknown," or may have missing imputed race.

\*\*\*\*\*Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

N/A, Not Applicable

**Table 7. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2020 to December 31, 2021, by Race and Age Group**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
<b>Capture of Other Confounding Covariates</b>					
<i>Has non-missing value for reported race<sup>2</sup></i>					
<i>American Indian or Alaska Native</i>					
0-17 years	396,550	440,523	9,001.80	396,550	N/A
18-43 years	324,378	392,672	8,260.79	324,378	N/A
44-64 years	182,044	205,185	8,872.19	182,044	N/A
≥ 65 years	95,072	100,070	9,500.55	95,072	N/A
<i>Asian</i>					
0-17 years	1,178,226	1,330,445	8,855.88	1,178,226	N/A
18-43 years	1,258,264	1,631,235	7,713.57	1,258,264	N/A
44-64 years	942,107	1,098,882	8,573.32	942,107	N/A
≥ 65 years	704,931	775,733	9,087.29	704,931	N/A
<i>Black or African American</i>					
0-17 years	6,226,917	7,091,028	8,781.40	6,226,917	N/A
18-43 years	4,429,848	5,554,207	7,975.66	4,429,848	N/A
44-64 years	2,649,708	3,014,526	8,789.80	2,649,708	N/A
≥ 65 years	2,104,412	2,236,762	9,408.30	2,104,412	N/A
<i>Multi-racial</i>					
0-17 years	456,988	500,612	9,128.59	456,988	N/A
18-43 years	383,492	451,694	8,490.08	383,492	N/A
44-64 years	222,352	240,123	9,259.92	222,352	N/A
≥ 65 years	42,733	44,606	9,580.10	42,733	N/A
<i>Native Hawaiian or Other Pacific Islander</i>					
0-17 years	147,259	174,516	8,438.14	147,259	N/A
18-43 years	119,234	160,067	7,449.01	119,234	N/A
44-64 years	63,826	77,493	8,236.36	63,826	N/A
≥ 65 years	61,422	68,596	8,954.17	61,422	N/A
<i>Unknown</i>					
0-17 years	17,138,371	19,859,477	8,629.82	17,138,371	N/A
18-43 years	13,478,029	18,457,037	7,302.38	13,478,029	N/A
44-64 years	8,869,467	10,886,289	8,147.37	8,869,467	N/A
≥ 65 years	2,293,278	2,619,628	8,754.21	2,293,278	N/A
<i>White</i>					
0-17 years	11,986,286	13,372,110	8,963.65	11,986,286	N/A
18-43 years	11,400,067	13,938,715	8,178.71	11,400,067	N/A

**Table 7. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2020 to December 31, 2021, by Race and Age Group**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
44-64 years	9,656,154	10,774,395	8,962.13	9,656,154	N/A
≥ 65 years	21,986,952	22,626,796	9,717.22	21,986,952	N/A

**Table 7. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2020 to December 31, 2021, by Race and Age Group**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
<i>Has non-missing value for imputed race<sup>3</sup></i>					
<i>American Indian or Alaska Native</i>					
0-17 years	411	581	7,074.01	411	N/A
18-43 years	11,988	13,341	8,985.83	11,988	N/A
44-64 years	30,073	31,792	9,459.30	30,073	N/A
≥ 65 years	72,714	75,274	9,659.91	72,714	N/A
<i>Asian</i>					
0-17 years	47,642	57,611	8,269.60	47,642	N/A
18-43 years	90,215	124,897	7,223.15	90,215	N/A
44-64 years	86,282	101,263	8,520.59	86,282	N/A
≥ 65 years	613,374	651,342	9,417.08	613,374	N/A
<i>Black or African American</i>					
0-17 years	214,544	264,144	8,122.24	214,544	N/A
18-43 years	346,331	435,105	7,959.71	346,331	N/A
44-64 years	554,155	611,528	9,061.81	554,155	N/A
≥ 65 years	1,206,358	1,275,444	9,458.34	1,206,358	N/A
<i>Multi-racial</i>					
0-17 years	*****	*****	8,048.78	*****	N/A
18-43 years	*****	*****	8,000.00	*****	N/A
44-64 years	*****	*****	9,696.97	*****	N/A
≥ 65 years	*****	*****	9,565.22	*****	N/A
<i>Native Hawaiian or Other Pacific Islander</i>					
0-17 years	*****	*****	8,333.33	*****	N/A
18-43 years	*****	*****	5,000.00	*****	N/A
44-64 years	0	0	NaN	0	N/A
≥ 65 years	0	0	NaN	0	N/A
<i>Unknown</i>					
0-17 years	676,945	829,512	8,160.76	676,945	N/A
18-43 years	1,249,098	1,670,897	7,475.61	1,249,098	N/A
44-64 years	1,074,393	1,262,609	8,509.31	1,074,393	N/A
≥ 65 years	1,727,788	1,860,099	9,288.69	1,727,788	N/A
<i>White</i>					
0-17 years	1,311,823	1,534,322	8,549.85	1,311,823	N/A
18-43 years	2,025,139	2,566,963	7,889.24	2,025,139	N/A
44-64 years	2,935,355	3,261,889	8,998.94	2,935,355	N/A

**Table 7. Summary of Exposures of Interest in the Sentinel Distributed Database from January 1, 2020 to December 31, 2021, by Race and Age Group**

	Members with an Index Date	Eligible Members <sup>1</sup>	Number of Members with an Index Date per 10K Eligible Members <sup>1</sup>	Total Number of Index Dates	Eligible Member Years <sup>1</sup>
≥ 65 years	16,410,734	16,776,123	9,782.20	16,410,734	N/A

<sup>1</sup>Eligible Members and Member-Years are reflective of the number of patients that met all cohort entry criteria on at least one day during the query period.

<sup>2</sup>If race is not reported, reported race is classified as "Unknown" which is a non-missing value in the Sentinel Database. The purpose of the "Has non-missing reported race" cohort was to describe all enrollees in the data with at least one encounter qualifying the inclusion criteria during 2020-2021.

<sup>3</sup>Only four DPs impute race; for all other DPs, imputed race data is unavailable. DPs have their own methods of imputing and race may not be imputed for all enrollees. DPs can impute the race of any enrollee, regardless of whether their reported race is "Unknown." As a result, even among DPs that perform imputation, enrollees with any value for reported race may receive any imputed race value, including "Unknown," or may have missing imputed race.

\*\*\*\*\*Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

N/A, Not Applicable.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

**Table 8a. Summary of Episode-Level<sup>1</sup> Cohort Attrition in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Incident Capture (365-Day Washout) of Confounding Conditions					
	Incident Obesity		Incident Overweight		Incident Smoking	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
<b>Members meeting enrollment and demographic requirements</b>						
Enrolled at any point during the query period	481,739,740	N/A	481,739,740	N/A	481,739,740	N/A
Had required coverage type (medical and/or drug coverage)	358,297,825	123,441,915	358,297,825	123,441,915	358,297,825	123,441,915
Enrolled during specified age range	358,292,794	5,031	358,292,794	5,031	358,292,794	5,031
Had requestable medical charts	358,292,794	0	358,292,794	0	358,292,794	0
Met demographic requirements (sex, race, and Hispanic origin)	358,153,393	139,401	358,153,393	139,401	358,153,393	139,401
<b>Members with a valid index event</b>						
Had any cohort-defining claim during the query period	63,994,428	294,158,965	33,964,224	324,189,169	62,848,719	295,304,674
<b>Cohort episodes with a valid index date</b>						
Total number of claims with cohort-identifying codes during the query period	403,389,659	N/A	112,777,196	N/A	396,919,647	N/A
Claim recorded during specified age range	403,388,437	1,222	112,776,905	291	396,918,369	1,278
Episode defining index claim recorded during the query period	96,677,060	306,711,377	44,745,300	68,031,605	98,191,397	298,726,972
<b>Cohort episodes with required pre-index history</b>						
Had sufficient pre-index continuous enrollment	62,961,256	33,715,804	32,452,570	12,292,730	63,427,747	34,763,650
Met inclusion and exclusion criteria	62,961,256	0	32,452,570	0	63,427,747	0
Had sufficient post-index continuous enrollment	62,961,256	0	32,452,570	0	63,427,747	0
<b>Final cohort</b>						
Number of members	41,808,406	N/A	24,525,780	N/A	40,664,965	N/A
Number of episodes	62,961,256	N/A	32,452,570	N/A	63,427,747	N/A



**Table 8a. Summary of Episode-Level<sup>1</sup> Cohort Attrition in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Incident Capture (365-Day Washout) of Confounding Conditions							
	Incident Alcohol Abuse or Dependence		Incident Drug Abuse or Dependence		Incident History of CABG or PTCA		Incident History of Sudden Cardiac Arrest	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
<b>Members meeting enrollment and demographic requirements</b>								
Enrolled at any point during the query period	481,739,740	N/A	481,739,740	N/A	481,739,740	N/A	481,739,740	N/A
Had required coverage type (medical and/or drug coverage)	358,297,825	123,441,915	358,297,825	123,441,915	358,297,825	123,441,915	358,297,825	123,441,915
Enrolled during specified age range	358,292,794	5,031	358,292,794	5,031	358,292,794	5,031	358,292,794	5,031
Had requestable medical charts	358,292,794	0	358,292,794	0	358,292,794	0	358,292,794	0
Met demographic requirements (sex, race, and Hispanic origin)	358,153,393	139,401	358,153,393	139,401	358,153,393	139,401	358,153,393	139,401
<b>Members with a valid index event</b>								
Had any cohort-defining claim during the query period	13,244,352	344,909,041	13,923,983	344,229,410	10,902,285	347,251,108	3,642,307	354,511,086
<b>Cohort episodes with a valid index date</b>								
Total number of claims with cohort-identifying codes during the query period	148,191,695	N/A	96,266,532	N/A	123,054,136	N/A	11,523,928	N/A
Claim recorded during specified age range	148,191,302	393	96,266,159	373	123,053,918	218	11,523,840	88
Episode defining index claim recorded during the query period	16,778,465	131,412,837	17,644,797	78,621,362	18,626,258	104,427,660	3,831,179	7,692,661
<b>Cohort episodes with required pre-index history</b>								
Had sufficient pre-index continuous enrollment	10,133,623	6,644,842	10,838,956	6,805,841	13,582,256	5,044,002	2,975,718	855,461
Met inclusion and exclusion criteria	10,133,623	0	10,838,956	0	13,582,256	0	2,975,718	0
Had sufficient post-index continuous enrollment	10,133,623	0	10,838,956	0	13,582,256	0	2,975,718	0
<b>Final cohort</b>								
Number of members	8,161,856	N/A	8,826,792	N/A	8,019,614	N/A	2,836,414	N/A
Number of episodes	10,133,623	N/A	10,838,956	N/A	13,582,256	N/A	2,975,718	N/A

**Table 8a. Summary of Episode-Level<sup>1</sup> Cohort Attrition in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Prevalent Capture of Confounding Conditions					
	Prevalent Obesity		Prevalent Overweight		Prevalent Smoking	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
<b>Members meeting enrollment and demographic requirements</b>						
Enrolled at any point during the query period	481,739,740	N/A	481,739,740	N/A	481,739,740	N/A
Had required coverage type (medical and/or drug coverage)	358,297,825	123,441,915	358,297,825	123,441,915	358,297,825	123,441,915
Enrolled during specified age range	358,292,794	5,031	358,292,794	5,031	358,292,794	5,031
Had requestable medical charts	358,292,794	0	358,292,794	0	358,292,794	0
Met demographic requirements (sex, race, and Hispanic origin)	358,153,393	139,401	358,153,393	139,401	358,153,393	139,401
<b>Members with a valid index event</b>						
Had any cohort-defining claim during the query period	63,994,428	294,158,965	33,964,224	324,189,169	62,848,719	295,304,674
<b>Cohort episodes with a valid index date</b>						
Total number of claims with cohort-identifying codes during the query period	403,389,659	N/A	112,777,196	N/A	396,919,647	N/A
Claim recorded during specified age range	403,388,437	1,222	112,776,905	291	396,918,369	1,278
Episode defining index claim recorded during the query period	403,388,437	0	112,776,905	0	396,918,369	0
<b>Cohort episodes with required pre-index history</b>						
Had sufficient pre-index continuous enrollment	316,262,801	87,125,636	91,347,478	21,429,427	307,530,400	89,387,969
Met inclusion and exclusion criteria	316,262,801	0	91,347,478	0	307,530,400	0
Had sufficient post-index continuous enrollment	316,262,801	0	91,347,478	0	307,530,400	0
<b>Final cohort</b>						
Number of members	48,379,256	N/A	26,351,868	N/A	46,526,773	N/A
Number of episodes	316,262,801	N/A	91,347,478	N/A	307,530,400	N/A

**Table 8a. Summary of Episode-Level<sup>1</sup> Cohort Attrition in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Prevalent Capture of Confounding Conditions							
	Prevalent Alcohol Abuse or Dependence		Prevalent Drug Abuse or Dependence		Prevalent History of CABG or PTCA		Prevalent History of Sudden Cardiac Arrest	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
<b>Members meeting enrollment and demographic requirements</b>								
Enrolled at any point during the query period	481,739,740	N/A	481,739,740	N/A	481,739,740	N/A	481,739,740	N/A
Had required coverage type (medical and/or drug coverage)	358,297,825	123,441,915	358,297,825	123,441,915	358,297,825	123,441,915	358,297,825	123,441,915
Enrolled during specified age range	358,292,794	5,031	358,292,794	5,031	358,292,794	5,031	358,292,794	5,031
Had requestable medical charts	358,292,794	0	358,292,794	0	358,292,794	0	358,292,794	0
Met demographic requirements (sex, race, and Hispanic origin)	358,153,393	139,401	358,153,393	139,401	358,153,393	139,401	358,153,393	139,401
<b>Members with a valid index event</b>								
Had any cohort-defining claim during the query period	13,244,352	344,909,041	13,923,983	344,229,410	10,902,285	347,251,108	3,642,307	354,511,086
<b>Cohort episodes with a valid index date</b>								
Total number of claims with cohort-identifying codes during the query period	148,191,695	N/A	96,266,532	N/A	123,054,136	N/A	11,523,928	N/A
Claim recorded during specified age range	148,191,302	393	96,266,159	373	123,053,918	218	11,523,840	88
Episode defining index claim recorded during the query period	148,191,302	0	96,266,159	0	123,053,918	0	11,523,840	0
<b>Cohort episodes with required pre-index history</b>								
Had sufficient pre-index continuous enrollment	101,699,694	46,491,608	66,477,840	29,788,319	103,308,717	19,745,201	9,092,987	2,430,853
Met inclusion and exclusion criteria	101,699,694	0	66,477,840	0	103,308,717	0	9,092,987	0
Had sufficient post-index continuous enrollment	101,699,694	0	66,477,840	0	103,308,717	0	9,092,987	0
<b>Final cohort</b>								
Number of members	9,343,054	N/A	9,721,582	N/A	9,095,604	N/A	2,873,004	N/A
Number of episodes	101,699,694	N/A	66,477,840	N/A	103,308,717	N/A	9,092,987	N/A

**Table 8a. Summary of Episode-Level<sup>1</sup> Cohort Attrition in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Capture of Other Confounding Covariates					
	Has Diagnosis Code that Indicates a Range of BMI		Has Diagnosis Code that Indicates a Range of BMI that Classifies as Obesity		Has Diagnosis Code that Indicates a Range of BMI that Classifies as Overweight	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
<b>Members meeting enrollment and demographic requirements</b>						
Enrolled at any point during the query period	481,739,740	N/A	481,739,740	N/A	481,739,740	N/A
Had required coverage type (medical and/or drug coverage)	358,297,825	123,441,915	358,297,825	123,441,915	358,297,825	123,441,915
Enrolled during specified age range	358,292,794	5,031	358,292,794	5,031	358,292,794	5,031
Had requestable medical charts	358,292,794	0	358,292,794	0	358,292,794	0
Met demographic requirements (sex, race, and Hispanic origin)	358,153,393	139,401	358,153,393	139,401	358,153,393	139,401
<b>Members with a valid index event</b>						
Had any cohort-defining claim during the query period	84,132,049	274,021,344	42,407,883	315,745,510	25,847,963	332,305,430
<b>Cohort episodes with a valid index date</b>						
Total number of claims with cohort-identifying codes during the query period	375,662,176	N/A	198,556,310	N/A	88,419,290	N/A
Claim recorded during specified age range	375,660,765	1,411	198,555,783	527	88,419,095	195
Episode defining index claim recorded during the query period	375,660,765	0	198,555,783	0	88,419,095	0
<b>Cohort episodes with required pre-index history</b>						
Had sufficient pre-index continuous enrollment	302,294,401	73,366,364	158,501,892	40,053,891	72,367,526	16,051,569
Met inclusion and exclusion criteria	302,294,401	0	158,501,892	0	72,367,526	0
Had sufficient post-index continuous enrollment	302,294,401	0	158,501,892	0	72,367,526	0
<b>Final cohort</b>						
Number of members	64,912,835	N/A	32,550,071	N/A	20,273,743	N/A
Number of episodes	302,294,401	N/A	158,501,892	N/A	72,367,526	N/A

<sup>1</sup>Cohorts are formed by first evaluating enrollment and demographic requirements as well as index events among members, then evaluating index dates, pre-index history, and post-index follow-up among episodes. Because of this the number remaining often increases from the member- to episode-level steps

CABG: Coronary Artery Bypass Graft. PTCA: Percutaneous Transluminal Cutaneous Angioplasty

BMI: Body Mass Index

N/A: Not Applicable

**Table 8b. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

	Capture of Other Confounding Covariates			
	Has Non-Missing Value for Reported Race <sup>1</sup>		Has Non-Missing value for Imputed Race <sup>2</sup>	
	Remaining	Excluded	Remaining	Excluded
<b>Members Meeting Enrollment and Demographic Requirements</b>				
Enrolled at any point during the query period	227,307,865	N/A	227,307,865	N/A
Had required coverage type (medical and/or drug coverage)	172,959,331	54,348,534	172,959,331	54,348,534
Enrolled during specified age range	172,953,359	5,972	172,953,359	5,972
Had requestable medical charts	172,953,359	0	172,953,359	0
Met demographic requirements (sex, race, and Hispanic origin)	172,929,870	23,489	39,873,237	133,080,122
<b>Members with a Valid Index Event</b>				
Had any cohort-defining claim during the query period	150,694,842	22,235,028	36,087,096	3,786,141
Claim recorded during specified age range	150,694,572	270	36,087,044	52
Episode defining index claim recorded during the query period	150,694,572	0	36,087,044	0
<b>Members with Required Pre-index History</b>				
Had sufficient pre-index continuous enrollment	118,798,367	31,896,205	30,685,551	5,401,493
Met inclusion and exclusion criteria	118,798,367	0	30,685,551	0
<b>Members with Required Post-Index Follow-Up</b>				
Had sufficient post-index continuous enrollment	118,798,367	0	30,685,551	0
<b>Final Cohort</b>				
Number of members	118,798,367	N/A	30,685,551	N/A
Number of episodes	118,798,367	N/A	30,685,551	N/A

<sup>1</sup>If race is not reported, reported race is classified as "Unknown" which is a non-missing value in the Sentinel Database. The purpose of the "Has non-missing reported race" cohort was to describe all enrollees in the data with at least one encounter qualifying the inclusion criteria during 2020-2021..

<sup>2</sup>Only four DPs impute race; for all other DPs, imputed race data is unavailable. DPs have their own methods of imputing and race may not be imputed for all enrollees. DPs can impute the race of any enrollee, regardless of whether their reported race is "Unknown." As a result, even among DPs that perform imputation, enrollees with any value for reported race may receive any imputed race value, including "Unknown," or may have missing imputed race.

N/A, Not Applicable

**Appendix A. Dates of Available Data for Each Data Partner (DP) as of Request Distribution Date (December 9, 2024)**

Masked DP ID	DP Start Date	DP End Date <sup>1</sup>
DP01	01/01/2005	07/31/2022
DP02	01/01/2000	12/31/2023
DP03	01/01/2000	12/31/2023
DP04	01/01/2007	12/31/2023
DP05	01/01/2010	12/31/2023
DP06	01/01/2000	12/31/2023
DP07	01/01/2014	12/31/2021
DP08	01/01/2000	12/31/2023
DP09	01/01/2008	12/31/2023
DP10	01/01/2000	12/31/2022
DP11	01/01/2008	12/31/2023
DP12	01/01/2004	12/31/2023
DP13	01/01/2000	12/31/2023
DP14	01/01/2006	12/31/2023

<sup>1</sup>End Date represents the earliest of: (1) query end date, or (2) last day of the most recent month for which all of a Data Partner's data tables (enrollment, dispensing, etc.) have at least 80% of the record count relative to the prior month.

**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
<b>Obesity Diagnosis Codes</b>			
278.00	Obesity, unspecified	Diagnosis	ICD-9-CM
278.01	Morbid obesity	Diagnosis	ICD-9-CM
278.03	Obesity hypoventilation syndrome	Diagnosis	ICD-9-CM
539.0	Complications of gastric band procedure	Diagnosis	ICD-9-CM
539.01	Infection due to gastric band procedure	Diagnosis	ICD-9-CM
539.09	Other complications of gastric band procedure	Diagnosis	ICD-9-CM
539.8	Complications of other bariatric procedure	Diagnosis	ICD-9-CM
539.81	Infection due to other bariatric procedure	Diagnosis	ICD-9-CM
539.89	Other complications of other bariatric procedure	Diagnosis	ICD-9-CM
649.1	Obesity complicating pregnancy, childbirth, or the puerperium	Diagnosis	ICD-9-CM
649.10	Obesity complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care or not applicable	Diagnosis	ICD-9-CM
649.11	Obesity complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
649.12	Obesity complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
649.13	Obesity complicating pregnancy, childbirth, or the puerperium, antepartum condition or complication	Diagnosis	ICD-9-CM
649.14	Obesity complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication	Diagnosis	ICD-9-CM
649.2	Bariatric surgery status complicating pregnancy, childbirth, or the puerperium	Diagnosis	ICD-9-CM
649.20	Bariatric surgery status complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care or not applicable	Diagnosis	ICD-9-CM
649.21	Bariatric surgery status complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
649.22	Bariatric surgery status complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
649.23	Bariatric surgery status complicating pregnancy, childbirth, or the puerperium, antepartum condition or complication	Diagnosis	ICD-9-CM
649.24	Bariatric surgery status complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication	Diagnosis	ICD-9-CM
E66.0	Obesity due to excess calories	Diagnosis	ICD-10-CM
E66.01	Morbid (severe) obesity due to excess calories	Diagnosis	ICD-10-CM
E66.09	Other obesity due to excess calories	Diagnosis	ICD-10-CM
E66.1	Drug-induced obesity	Diagnosis	ICD-10-CM
E66.2	Morbid (severe) obesity with alveolar hypoventilation	Diagnosis	ICD-10-CM
E66.8	Other obesity	Diagnosis	ICD-10-CM
E66.9	Obesity, unspecified	Diagnosis	ICD-10-CM
K95.01	Infection due to gastric band procedure	Diagnosis	ICD-10-CM
K95.09	Other complications of gastric band procedure	Diagnosis	ICD-10-CM
K95.81	Infection due to other bariatric procedure	Diagnosis	ICD-10-CM
K95.89	Other complications of other bariatric procedure	Diagnosis	ICD-10-CM

**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
O99.21	Obesity complicating pregnancy, childbirth, and the puerperium	Diagnosis	ICD-10-CM
O99.210	Obesity complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O99.211	Obesity complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99.212	Obesity complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99.213	Obesity complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O99.214	Obesity complicating childbirth	Diagnosis	ICD-10-CM
O99.215	Obesity complicating the puerperium	Diagnosis	ICD-10-CM
O99.840	Bariatric surgery status complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O99.841	Bariatric surgery status complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99.842	Bariatric surgery status complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99.843	Bariatric surgery status complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O99.844	Bariatric surgery status complicating childbirth	Diagnosis	ICD-10-CM
O99.845	Bariatric surgery status complicating the puerperium	Diagnosis	ICD-10-CM
V85.3	Body Mass Index between 30-39, adult	Diagnosis	ICD-9-CM
V85.30	Body Mass Index 30.0-30.9, adult	Diagnosis	ICD-9-CM
V85.31	Body Mass Index 31.0-31.9, adult	Diagnosis	ICD-9-CM
V85.32	Body Mass Index 32.0-32.9, adult	Diagnosis	ICD-9-CM
V85.33	Body Mass Index 33.0-33.9, adult	Diagnosis	ICD-9-CM
V85.34	Body Mass Index 34.0-34.9, adult	Diagnosis	ICD-9-CM
V85.35	Body Mass Index 35.0-35.9, adult	Diagnosis	ICD-9-CM
V85.36	Body Mass Index 36.0-36.9, adult	Diagnosis	ICD-9-CM
V85.37	Body Mass Index 37.0-37.9, adult	Diagnosis	ICD-9-CM
V85.38	Body Mass Index 38.0-38.9, adult	Diagnosis	ICD-9-CM
V85.39	Body Mass Index 39.0-39.9, adult	Diagnosis	ICD-9-CM
V85.4	Body Mass Index 40 and over, adult	Diagnosis	ICD-9-CM
V85.41	Body Mass Index 40.0-44.9, adult	Diagnosis	ICD-9-CM
V85.42	Body Mass Index 45.0-49.9, adult	Diagnosis	ICD-9-CM
V85.43	Body Mass Index 50.0-59.9, adult	Diagnosis	ICD-9-CM
V85.44	Body Mass Index 60.0-69.9, adult	Diagnosis	ICD-9-CM
V85.45	Body Mass Index 70 and over, adult	Diagnosis	ICD-9-CM
V85.54	Body Mass Index, pediatric, greater than or equal to 95th percentile for age	Diagnosis	ICD-9-CM
Z68.30	Body mass index [BMI] 30.0-30.9, adult	Diagnosis	ICD-10-CM
Z68.31	Body mass index [BMI] 31.0-31.9, adult	Diagnosis	ICD-10-CM
Z68.32	Body mass index [BMI] 32.0-32.9, adult	Diagnosis	ICD-10-CM
Z68.33	Body mass index [BMI] 33.0-33.9, adult	Diagnosis	ICD-10-CM
Z68.34	Body mass index [BMI] 34.0-34.9, adult	Diagnosis	ICD-10-CM
Z68.35	Body mass index [BMI] 35.0-35.9, adult	Diagnosis	ICD-10-CM
Z68.36	Body mass index [BMI] 36.0-36.9, adult	Diagnosis	ICD-10-CM
Z68.37	Body mass index [BMI] 37.0-37.9, adult	Diagnosis	ICD-10-CM
Z68.38	Body mass index [BMI] 38.0-38.9, adult	Diagnosis	ICD-10-CM
Z68.39	Body mass index [BMI] 39.0-39.9, adult	Diagnosis	ICD-10-CM
Z68.41	Body mass index [BMI] 40.0-44.9, adult	Diagnosis	ICD-10-CM
Z68.42	Body mass index [BMI] 45.0-49.9, adult	Diagnosis	ICD-10-CM



**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
Z68.43	Body mass index [BMI] 50.0-59.9, adult	Diagnosis	ICD-10-CM
Z68.44	Body mass index [BMI] 60.0-69.9, adult	Diagnosis	ICD-10-CM
Z68.45	Body mass index [BMI] 70 or greater, adult	Diagnosis	ICD-10-CM
Z68.54	Body mass index [BMI] pediatric, greater than or equal to 95th percentile for age	Diagnosis	ICD-10-CM
Z68.55	BMI PED 120% TO < 140% OF 95TH PERCNTL FOR AGE	Diagnosis	ICD-10-CM
Z68.56	BMI PED >= TO 140% OF THE 95TH PERCNTL FOR AGE	Diagnosis	ICD-10-CM
<b>Overweight Diagnosis Codes</b>			
278	Overweight, obesity and other hyperalimentation	Diagnosis	ICD-9-CM
278.0	Overweight and obesity	Diagnosis	ICD-9-CM
278.02	Overweight	Diagnosis	ICD-9-CM
E66	Overweight and obesity	Diagnosis	ICD-10-CM
E66.3	Overweight	Diagnosis	ICD-10-CM
V85.2	Body Mass Index between 25-29, adult	Diagnosis	ICD-9-CM
V85.21	Body Mass Index 25.0-25.9, adult	Diagnosis	ICD-9-CM
V85.22	Body Mass Index 26.0-26.9, adult	Diagnosis	ICD-9-CM
V85.23	Body Mass Index 27.0-27.9, adult	Diagnosis	ICD-9-CM
V85.24	Body Mass Index 28.0-28.9, adult	Diagnosis	ICD-9-CM
V85.25	Body Mass Index 29.0-29.9, adult	Diagnosis	ICD-9-CM
V85.53	Body Mass Index, pediatric, 85th percentile to less than 95th percentile for age	Diagnosis	ICD-9-CM
Z68.25	Body mass index [BMI] 25.0-25.9, adult	Diagnosis	ICD-10-CM
Z68.26	Body mass index [BMI] 26.0-26.9, adult	Diagnosis	ICD-10-CM
Z68.27	Body mass index [BMI] 27.0-27.9, adult	Diagnosis	ICD-10-CM
Z68.28	Body mass index [BMI] 28.0-28.9, adult	Diagnosis	ICD-10-CM
Z68.29	Body mass index [BMI] 29.0-29.9, adult	Diagnosis	ICD-10-CM
Z68.53	Body mass index [BMI] pediatric, 85th percentile to less than 95th percentile for age	Diagnosis	ICD-10-CM
<b>Smoking Diagnosis Codes</b>			
305.1	Nondependent tobacco use disorder	Diagnosis	ICD-9-CM
649.0	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium	Diagnosis	ICD-9-CM
649.00	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care or not applicable	Diagnosis	ICD-9-CM
649.01	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
649.02	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
649.03	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, antepartum condition or complication	Diagnosis	ICD-9-CM
649.04	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication	Diagnosis	ICD-9-CM
989.84	Toxic effect of tobacco	Diagnosis	ICD-9-CM
F17	Nicotine dependence	Diagnosis	ICD-10-CM

**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
F17.2	Nicotine dependence	Diagnosis	ICD-10-CM
F17.20	Nicotine dependence, unspecified	Diagnosis	ICD-10-CM
F17.200	Nicotine dependence, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F17.201	Nicotine dependence, unspecified, in remission	Diagnosis	ICD-10-CM
F17.203	Nicotine dependence unspecified, with withdrawal	Diagnosis	ICD-10-CM
F17.208	Nicotine dependence, unspecified, with other nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.209	Nicotine dependence, unspecified, with unspecified nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.21	Nicotine dependence, cigarettes	Diagnosis	ICD-10-CM
F17.210	Nicotine dependence, cigarettes, uncomplicated	Diagnosis	ICD-10-CM
F17.211	Nicotine dependence, cigarettes, in remission	Diagnosis	ICD-10-CM
F17.213	Nicotine dependence, cigarettes, with withdrawal	Diagnosis	ICD-10-CM
F17.218	Nicotine dependence, cigarettes, with other nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.219	Nicotine dependence, cigarettes, with unspecified nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.22	Nicotine dependence, chewing tobacco	Diagnosis	ICD-10-CM
F17.220	Nicotine dependence, chewing tobacco, uncomplicated	Diagnosis	ICD-10-CM
F17.221	Nicotine dependence, chewing tobacco, in remission	Diagnosis	ICD-10-CM
F17.223	Nicotine dependence, chewing tobacco, with withdrawal	Diagnosis	ICD-10-CM
F17.228	Nicotine dependence, chewing tobacco, with other nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.229	Nicotine dependence, chewing tobacco, with unspecified nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.29	Nicotine dependence, other tobacco product	Diagnosis	ICD-10-CM
F17.290	Nicotine dependence, other tobacco product, uncomplicated	Diagnosis	ICD-10-CM
F17.291	Nicotine dependence, other tobacco product, in remission	Diagnosis	ICD-10-CM
F17.293	Nicotine dependence, other tobacco product, with withdrawal	Diagnosis	ICD-10-CM
F17.298	Nicotine dependence, other tobacco product, with other nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.299	Nicotine dependence, other tobacco product, with unspecified nicotine-induced disorders	Diagnosis	ICD-10-CM
O99.33	Tobacco use disorder complicating pregnancy, childbirth, and the puerperium	Diagnosis	ICD-10-CM
O99.330	Smoking (tobacco) complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O99.331	Smoking (tobacco) complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99.332	Smoking (tobacco) complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99.333	Smoking (tobacco) complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O99.334	Smoking (tobacco) complicating childbirth	Diagnosis	ICD-10-CM
O99.335	Smoking (tobacco) complicating the puerperium	Diagnosis	ICD-10-CM
P04.2	Newborn affected by maternal use of tobacco	Diagnosis	ICD-10-CM
P96.81	Exposure to (parental) (environmental) tobacco smoke in the perinatal period	Diagnosis	ICD-10-CM
T65.2	Toxic effect of tobacco and nicotine	Diagnosis	ICD-10-CM

**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
T65.21	Toxic effect of chewing tobacco	Diagnosis	ICD-10-CM
T65.211	Toxic effect of chewing tobacco, accidental (unintentional)	Diagnosis	ICD-10-CM
T65.211A	Toxic effect of chewing tobacco, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65.211D	Toxic effect of chewing tobacco, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T65.211S	Toxic effect of chewing tobacco, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T65.212	Toxic effect of chewing tobacco, intentional self-harm	Diagnosis	ICD-10-CM
T65.212A	Toxic effect of chewing tobacco, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.212D	Toxic effect of chewing tobacco, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.212S	Toxic effect of chewing tobacco, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.213	Toxic effect of chewing tobacco, assault	Diagnosis	ICD-10-CM
T65.213A	Toxic effect of chewing tobacco, assault, initial encounter	Diagnosis	ICD-10-CM
T65.213D	Toxic effect of chewing tobacco, assault, subsequent encounter	Diagnosis	ICD-10-CM
T65.213S	Toxic effect of chewing tobacco, assault, sequela	Diagnosis	ICD-10-CM
T65.214	Toxic effect of chewing tobacco, undetermined	Diagnosis	ICD-10-CM
T65.214A	Toxic effect of chewing tobacco, undetermined, initial encounter	Diagnosis	ICD-10-CM
T65.214D	Toxic effect of chewing tobacco, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T65.214S	Toxic effect of chewing tobacco, undetermined, sequela	Diagnosis	ICD-10-CM
T65.22	Toxic effect of tobacco cigarettes	Diagnosis	ICD-10-CM
T65.221	Toxic effect of tobacco cigarettes, accidental (unintentional)	Diagnosis	ICD-10-CM
T65.221A	Toxic effect of tobacco cigarettes, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65.221D	Toxic effect of tobacco cigarettes, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T65.221S	Toxic effect of tobacco cigarettes, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T65.222	Toxic effect of tobacco cigarettes, intentional self-harm	Diagnosis	ICD-10-CM
T65.222A	Toxic effect of tobacco cigarettes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.222D	Toxic effect of tobacco cigarettes, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.222S	Toxic effect of tobacco cigarettes, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.223	Toxic effect of tobacco cigarettes, assault	Diagnosis	ICD-10-CM
T65.223A	Toxic effect of tobacco cigarettes, assault, initial encounter	Diagnosis	ICD-10-CM
T65.223D	Toxic effect of tobacco cigarettes, assault, subsequent encounter	Diagnosis	ICD-10-CM
T65.223S	Toxic effect of tobacco cigarettes, assault, sequela	Diagnosis	ICD-10-CM
T65.224	Toxic effect of tobacco cigarettes, undetermined	Diagnosis	ICD-10-CM
T65.224A	Toxic effect of tobacco cigarettes, undetermined, initial encounter	Diagnosis	ICD-10-CM
T65.224D	Toxic effect of tobacco cigarettes, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T65.224S	Toxic effect of tobacco cigarettes, undetermined, sequela	Diagnosis	ICD-10-CM
T65.29	Toxic effect of other tobacco and nicotine	Diagnosis	ICD-10-CM
T65.291	Toxic effect of other tobacco and nicotine, accidental (unintentional)	Diagnosis	ICD-10-CM

**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
T65.291A	Toxic effect of other tobacco and nicotine, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65.291D	Toxic effect of other tobacco and nicotine, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T65.291S	Toxic effect of other tobacco and nicotine, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T65.292	Toxic effect of other tobacco and nicotine, intentional self-harm	Diagnosis	ICD-10-CM
T65.292A	Toxic effect of other tobacco and nicotine, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.292D	Toxic effect of other tobacco and nicotine, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T65.292S	Toxic effect of other tobacco and nicotine, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T65.293	Toxic effect of other tobacco and nicotine, assault	Diagnosis	ICD-10-CM
T65.293A	Toxic effect of other tobacco and nicotine, assault, initial encounter	Diagnosis	ICD-10-CM
T65.293D	Toxic effect of other tobacco and nicotine, assault, subsequent encounter	Diagnosis	ICD-10-CM
T65.293S	Toxic effect of other tobacco and nicotine, assault, sequela	Diagnosis	ICD-10-CM
T65.294	Toxic effect of other tobacco and nicotine, undetermined	Diagnosis	ICD-10-CM
T65.294A	Toxic effect of other tobacco and nicotine, undetermined, initial encounter	Diagnosis	ICD-10-CM
T65.294D	Toxic effect of other tobacco and nicotine, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T65.294S	Toxic effect of other tobacco and nicotine, undetermined, sequela	Diagnosis	ICD-10-CM
V15.82	Personal history of tobacco use, presenting hazards to health	Diagnosis	ICD-9-CM
Z53.01	Procedure and treatment not carried out due to patient smoking	Diagnosis	ICD-10-CM
Z57.31	Occupational exposure to environmental tobacco smoke	Diagnosis	ICD-10-CM
Z71.6	Tobacco abuse counseling	Diagnosis	ICD-10-CM
Z72.0	Tobacco use	Diagnosis	ICD-10-CM
Z77.22	Contact with and (suspected) exposure to environmental tobacco smoke (acute) (chronic)	Diagnosis	ICD-10-CM
Z87.891	Personal history of nicotine dependence	Diagnosis	ICD-10-CM
<b>Alcohol Abuse or Dependence Diagnosis Codes</b>			
291	Alcohol-induced mental disorders	Diagnosis	ICD-9-CM
291.0	Alcohol withdrawal delirium	Diagnosis	ICD-9-CM
291.1	Alcohol-induced persisting amnesic disorder	Diagnosis	ICD-9-CM
291.2	Alcohol-induced persisting dementia	Diagnosis	ICD-9-CM
291.3	Alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-9-CM
291.4	Idiosyncratic alcohol intoxication	Diagnosis	ICD-9-CM
291.5	Alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-9-CM
291.8	Other specified alcohol-induced mental disorders	Diagnosis	ICD-9-CM
291.81	Alcohol withdrawal	Diagnosis	ICD-9-CM
291.82	Alcohol induced sleep disorders	Diagnosis	ICD-9-CM
291.89	Other specified alcohol-induced mental disorders	Diagnosis	ICD-9-CM
291.9	Unspecified alcohol-induced mental disorders	Diagnosis	ICD-9-CM

**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
303	Alcohol dependence syndrome	Diagnosis	ICD-9-CM
303.0	Acute alcoholic intoxication	Diagnosis	ICD-9-CM
303.00	Acute alcoholic intoxication, unspecified	Diagnosis	ICD-9-CM
303.01	Acute alcoholic intoxication, continuous	Diagnosis	ICD-9-CM
303.02	Acute alcoholic intoxication, episodic	Diagnosis	ICD-9-CM
303.03	Acute alcoholic intoxication, in remission	Diagnosis	ICD-9-CM
303.9	Other and unspecified alcohol dependence	Diagnosis	ICD-9-CM
303.90	Other and unspecified alcohol dependence, unspecified	Diagnosis	ICD-9-CM
303.91	Other and unspecified alcohol dependence, continuous	Diagnosis	ICD-9-CM
303.92	Other and unspecified alcohol dependence, episodic	Diagnosis	ICD-9-CM
303.93	Other and unspecified alcohol dependence, in remission	Diagnosis	ICD-9-CM
305.0	Nondependent alcohol abuse	Diagnosis	ICD-9-CM
305.00	Nondependent alcohol abuse, unspecified	Diagnosis	ICD-9-CM
305.01	Nondependent alcohol abuse, continuous	Diagnosis	ICD-9-CM
305.02	Nondependent alcohol abuse, episodic	Diagnosis	ICD-9-CM
305.03	Nondependent alcohol abuse, in remission	Diagnosis	ICD-9-CM
357.5	Alcoholic polyneuropathy	Diagnosis	ICD-9-CM
425.5	Alcoholic cardiomyopathy	Diagnosis	ICD-9-CM
535.3	Alcoholic gastritis	Diagnosis	ICD-9-CM
535.30	Alcoholic gastritis without mention of hemorrhage	Diagnosis	ICD-9-CM
535.31	Alcoholic gastritis with hemorrhage	Diagnosis	ICD-9-CM
571.0	Alcoholic fatty liver	Diagnosis	ICD-9-CM
571.1	Acute alcoholic hepatitis	Diagnosis	ICD-9-CM
571.2	Alcoholic cirrhosis of liver	Diagnosis	ICD-9-CM
571.3	Unspecified alcoholic liver damage	Diagnosis	ICD-9-CM
760.71	Noxious influences affecting fetus or newborn via placenta or breast milk, alcohol	Diagnosis	ICD-9-CM
790.3	Excessive blood level of alcohol	Diagnosis	ICD-9-CM
94.46	Alcoholism counseling	Procedure	ICD-9-CM
94.53	Referral for alcoholism rehabilitation	Procedure	ICD-9-CM
94.6	Alcohol and drug rehabilitation and detoxification	Procedure	ICD-9-CM
94.61	Alcohol rehabilitation	Procedure	ICD-9-CM
94.62	Alcohol detoxification	Procedure	ICD-9-CM
94.63	Alcohol rehabilitation and detoxification	Procedure	ICD-9-CM
94.67	Combined alcohol and drug rehabilitation	Procedure	ICD-9-CM
94.68	Combined alcohol and drug detoxification	Procedure	ICD-9-CM
94.69	Combined alcohol and drug rehabilitation and detoxification	Procedure	ICD-9-CM
977.3	Poisoning by alcohol deterrents	Diagnosis	ICD-9-CM
980	Toxic effect of alcohol	Diagnosis	ICD-9-CM
980.0	Toxic effect of ethyl alcohol	Diagnosis	ICD-9-CM
980.1	Toxic effect of methyl alcohol	Diagnosis	ICD-9-CM
980.2	Toxic effect of isopropyl alcohol	Diagnosis	ICD-9-CM
980.8	Toxic effect of other specified alcohols	Diagnosis	ICD-9-CM
980.9	Toxic effect of unspecified alcohol	Diagnosis	ICD-9-CM
E24.4	Alcohol-induced pseudo-Cushing's syndrome	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F10	Alcohol related disorders	Diagnosis	ICD-10-CM
F10.1	Alcohol abuse	Diagnosis	ICD-10-CM
F10.10	Alcohol abuse, uncomplicated	Diagnosis	ICD-10-CM
F10.11	Alcohol abuse, in remission	Diagnosis	ICD-10-CM
F10.12	Alcohol abuse with intoxication	Diagnosis	ICD-10-CM
F10.120	Alcohol abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F10.121	Alcohol abuse with intoxication delirium	Diagnosis	ICD-10-CM
F10.129	Alcohol abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F10.13	Alcohol abuse, with withdrawal	Diagnosis	ICD-10-CM
F10.130	Alcohol abuse with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F10.131	Alcohol abuse with withdrawal delirium	Diagnosis	ICD-10-CM
F10.132	Alcohol abuse with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F10.139	Alcohol abuse with withdrawal, unspecified	Diagnosis	ICD-10-CM
F10.14	Alcohol abuse with alcohol-induced mood disorder	Diagnosis	ICD-10-CM
F10.15	Alcohol abuse with alcohol-induced psychotic disorder	Diagnosis	ICD-10-CM
F10.150	Alcohol abuse with alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F10.151	Alcohol abuse with alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F10.159	Alcohol abuse with alcohol-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F10.18	Alcohol abuse with other alcohol-induced disorders	Diagnosis	ICD-10-CM
F10.180	Alcohol abuse with alcohol-induced anxiety disorder	Diagnosis	ICD-10-CM
F10.181	Alcohol abuse with alcohol-induced sexual dysfunction	Diagnosis	ICD-10-CM
F10.182	Alcohol abuse with alcohol-induced sleep disorder	Diagnosis	ICD-10-CM
F10.188	Alcohol abuse with other alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.19	Alcohol abuse with unspecified alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.2	Alcohol dependence	Diagnosis	ICD-10-CM
F10.20	Alcohol dependence, uncomplicated	Diagnosis	ICD-10-CM
F10.21	Alcohol dependence, in remission	Diagnosis	ICD-10-CM
F10.22	Alcohol dependence with intoxication	Diagnosis	ICD-10-CM
F10.220	Alcohol dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F10.221	Alcohol dependence with intoxication delirium	Diagnosis	ICD-10-CM
F10.229	Alcohol dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F10.23	Alcohol dependence with withdrawal	Diagnosis	ICD-10-CM
F10.230	Alcohol dependence with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F10.231	Alcohol dependence with withdrawal delirium	Diagnosis	ICD-10-CM
F10.232	Alcohol dependence with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F10.239	Alcohol dependence with withdrawal, unspecified	Diagnosis	ICD-10-CM
F10.24	Alcohol dependence with alcohol-induced mood disorder	Diagnosis	ICD-10-CM
F10.25	Alcohol dependence with alcohol-induced psychotic disorder	Diagnosis	ICD-10-CM
F10.250	Alcohol dependence with alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F10.251	Alcohol dependence with alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM



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Code	Description	Code Category	Code Type
F10.259	Alcohol dependence with alcohol-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F10.26	Alcohol dependence with alcohol-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F10.27	Alcohol dependence with alcohol-induced persisting dementia	Diagnosis	ICD-10-CM
F10.28	Alcohol dependence with other alcohol-induced disorders	Diagnosis	ICD-10-CM
F10.280	Alcohol dependence with alcohol-induced anxiety disorder	Diagnosis	ICD-10-CM
F10.281	Alcohol dependence with alcohol-induced sexual dysfunction	Diagnosis	ICD-10-CM
F10.282	Alcohol dependence with alcohol-induced sleep disorder	Diagnosis	ICD-10-CM
F10.288	Alcohol dependence with other alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.29	Alcohol dependence with unspecified alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.9	Alcohol use, unspecified	Diagnosis	ICD-10-CM
F10.90	Alcohol use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F10.91	Alcohol use, unspecified, in remission	Diagnosis	ICD-10-CM
F10.92	Alcohol use, unspecified with intoxication	Diagnosis	ICD-10-CM
F10.920	Alcohol use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F10.921	Alcohol use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F10.929	Alcohol use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F10.93	Alcohol use, unspecified with withdrawal	Diagnosis	ICD-10-CM
F10.930	Alcohol use, unspecified with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F10.931	Alcohol use, unspecified with withdrawal delirium	Diagnosis	ICD-10-CM
F10.932	Alcohol use, unspecified with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F10.939	Alcohol use, unspecified with withdrawal, unspecified	Diagnosis	ICD-10-CM
F10.94	Alcohol use, unspecified with alcohol-induced mood disorder	Diagnosis	ICD-10-CM
F10.95	Alcohol use, unspecified with alcohol-induced psychotic disorder	Diagnosis	ICD-10-CM
F10.950	Alcohol use, unspecified with alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F10.951	Alcohol use, unspecified with alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F10.959	Alcohol use, unspecified with alcohol-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F10.96	Alcohol use, unspecified with alcohol-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F10.97	Alcohol use, unspecified with alcohol-induced persisting dementia	Diagnosis	ICD-10-CM
F10.98	Alcohol use, unspecified with other alcohol-induced disorders	Diagnosis	ICD-10-CM
F10.980	Alcohol use, unspecified with alcohol-induced anxiety disorder	Diagnosis	ICD-10-CM
F10.981	Alcohol use, unspecified with alcohol-induced sexual dysfunction	Diagnosis	ICD-10-CM
F10.982	Alcohol use, unspecified with alcohol-induced sleep disorder	Diagnosis	ICD-10-CM
F10.988	Alcohol use, unspecified with other alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.99	Alcohol use, unspecified with unspecified alcohol-induced disorder	Diagnosis	ICD-10-CM
G31.2	Degeneration of nervous system due to alcohol	Diagnosis	ICD-10-CM
G62.1	Alcoholic polyneuropathy	Diagnosis	ICD-10-CM
G72.1	Alcoholic myopathy	Diagnosis	ICD-10-CM
HZ2ZZZZ	Detoxification Services for Substance Abuse Treatment	Procedure	ICD-10-PCS
HZ30ZZZ	Individual Counseling for Substance Abuse Treatment, Cognitive	Procedure	ICD-10-PCS

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Code	Description	Code Category	Code Type
HZ31ZZZ	Individual Counseling for Substance Abuse Treatment, Behavioral	Procedure	ICD-10-PCS
HZ32ZZZ	Individual Counseling for Substance Abuse Treatment, Cognitive-Behavioral	Procedure	ICD-10-PCS
HZ33ZZZ	Individual Counseling for Substance Abuse Treatment, 12-Step	Procedure	ICD-10-PCS
HZ34ZZZ	Individual Counseling for Substance Abuse Treatment, Interpersonal	Procedure	ICD-10-PCS
HZ35ZZZ	Individual Counseling for Substance Abuse Treatment, Vocational	Procedure	ICD-10-PCS
HZ36ZZZ	Individual Counseling for Substance Abuse Treatment, Psychoeducation	Procedure	ICD-10-PCS
HZ37ZZZ	Individual Counseling for Substance Abuse Treatment, Motivational Enhancement	Procedure	ICD-10-PCS
HZ38ZZZ	Individual Counseling for Substance Abuse Treatment, Confrontational	Procedure	ICD-10-PCS
HZ39ZZZ	Individual Counseling for Substance Abuse Treatment, Continuing Care	Procedure	ICD-10-PCS
HZ3BZZZ	Individual Counseling for Substance Abuse Treatment, Spiritual	Procedure	ICD-10-PCS
HZ40ZZZ	Group Counseling for Substance Abuse Treatment, Cognitive	Procedure	ICD-10-PCS
HZ41ZZZ	Group Counseling for Substance Abuse Treatment, Behavioral	Procedure	ICD-10-PCS
HZ42ZZZ	Group Counseling for Substance Abuse Treatment, Cognitive-Behavioral	Procedure	ICD-10-PCS
HZ43ZZZ	Group Counseling for Substance Abuse Treatment, 12-Step	Procedure	ICD-10-PCS
HZ44ZZZ	Group Counseling for Substance Abuse Treatment, Interpersonal	Procedure	ICD-10-PCS
HZ45ZZZ	Group Counseling for Substance Abuse Treatment, Vocational	Procedure	ICD-10-PCS
HZ46ZZZ	Group Counseling for Substance Abuse Treatment, Psychoeducation	Procedure	ICD-10-PCS
HZ47ZZZ	Group Counseling for Substance Abuse Treatment, Motivational Enhancement	Procedure	ICD-10-PCS
HZ48ZZZ	Group Counseling for Substance Abuse Treatment, Confrontational	Procedure	ICD-10-PCS
HZ49ZZZ	Group Counseling for Substance Abuse Treatment, Continuing Care	Procedure	ICD-10-PCS
HZ4BZZZ	Group Counseling for Substance Abuse Treatment, Spiritual	Procedure	ICD-10-PCS
HZ50ZZZ	Individual Psychotherapy for Substance Abuse Treatment, Cognitive	Procedure	ICD-10-PCS
HZ51ZZZ	Individual Psychotherapy for Substance Abuse Treatment, Behavioral	Procedure	ICD-10-PCS
HZ52ZZZ	Individual Psychotherapy for Substance Abuse Treatment, Cognitive-Behavioral	Procedure	ICD-10-PCS
HZ53ZZZ	Individual Psychotherapy for Substance Abuse Treatment, 12-Step	Procedure	ICD-10-PCS
HZ54ZZZ	Individual Psychotherapy for Substance Abuse Treatment, Interpersonal	Procedure	ICD-10-PCS
HZ55ZZZ	Individual Psychotherapy for Substance Abuse Treatment, Interactive	Procedure	ICD-10-PCS
HZ56ZZZ	Individual Psychotherapy for Substance Abuse Treatment, Psychoeducation	Procedure	ICD-10-PCS
HZ57ZZZ	Individual Psychotherapy for Substance Abuse Treatment, Motivational Enhancement	Procedure	ICD-10-PCS
HZ58ZZZ	Individual Psychotherapy for Substance Abuse Treatment, Confrontational	Procedure	ICD-10-PCS
HZ59ZZZ	Individual Psychotherapy for Substance Abuse Treatment, Supportive	Procedure	ICD-10-PCS
HZ5BZZZ	Individual Psychotherapy for Substance Abuse Treatment, Psychoanalysis	Procedure	ICD-10-PCS
HZ5CZZZ	Individual Psychotherapy for Substance Abuse Treatment, Psychodynamic	Procedure	ICD-10-PCS



**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
HZ5DZZZ	Individual Psychotherapy for Substance Abuse Treatment, Psychophysiological	Procedure	ICD-10-PCS
HZ83ZZZ	Medication Management for Substance Abuse Treatment, Antabuse	Procedure	ICD-10-PCS
HZ86ZZZ	Medication Management for Substance Abuse Treatment, Clonidine	Procedure	ICD-10-PCS
HZ88ZZZ	Medication Management for Substance Abuse Treatment, Psychiatric Medication	Procedure	ICD-10-PCS
HZ89ZZZ	Medication Management for Substance Abuse Treatment, Other Replacement Medication	Procedure	ICD-10-PCS
HZ93ZZZ	Pharmacotherapy for Substance Abuse Treatment, Antabuse	Procedure	ICD-10-PCS
HZ96ZZZ	Pharmacotherapy for Substance Abuse Treatment, Clonidine	Procedure	ICD-10-PCS
HZ98ZZZ	Pharmacotherapy for Substance Abuse Treatment, Psychiatric Medication	Procedure	ICD-10-PCS
HZ99ZZZ	Pharmacotherapy for Substance Abuse Treatment, Other Replacement Medication	Procedure	ICD-10-PCS
I42.6	Alcoholic cardiomyopathy	Diagnosis	ICD-10-CM
K29.2	Alcoholic gastritis	Diagnosis	ICD-10-CM
K29.20	Alcoholic gastritis without bleeding	Diagnosis	ICD-10-CM
K29.21	Alcoholic gastritis with bleeding	Diagnosis	ICD-10-CM
K70	Alcoholic liver disease	Diagnosis	ICD-10-CM
K70.0	Alcoholic fatty liver	Diagnosis	ICD-10-CM
K70.1	Alcoholic hepatitis	Diagnosis	ICD-10-CM
K70.10	Alcoholic hepatitis without ascites	Diagnosis	ICD-10-CM
K70.11	Alcoholic hepatitis with ascites	Diagnosis	ICD-10-CM
K70.2	Alcoholic fibrosis and sclerosis of liver	Diagnosis	ICD-10-CM
K70.3	Alcoholic cirrhosis of liver	Diagnosis	ICD-10-CM
K70.30	Alcoholic cirrhosis of liver without ascites	Diagnosis	ICD-10-CM
K70.31	Alcoholic cirrhosis of liver with ascites	Diagnosis	ICD-10-CM
K70.4	Alcoholic hepatic failure	Diagnosis	ICD-10-CM
K70.40	Alcoholic hepatic failure without coma	Diagnosis	ICD-10-CM
K70.41	Alcoholic hepatic failure with coma	Diagnosis	ICD-10-CM
K70.9	Alcoholic liver disease, unspecified	Diagnosis	ICD-10-CM
K85.2	Alcohol induced acute pancreatitis	Diagnosis	ICD-10-CM
K85.20	Alcohol induced acute pancreatitis without necrosis or infection	Diagnosis	ICD-10-CM
K85.21	Alcohol induced acute pancreatitis with uninfected necrosis	Diagnosis	ICD-10-CM
K85.22	Alcohol induced acute pancreatitis with infected necrosis	Diagnosis	ICD-10-CM
K86.0	Alcohol-induced chronic pancreatitis	Diagnosis	ICD-10-CM
O35.4	Maternal care for (suspected) damage to fetus from alcohol	Diagnosis	ICD-10-CM
O35.4XX0	Maternal care for (suspected) damage to fetus from alcohol, not applicable or unspecified	Diagnosis	ICD-10-CM
O35.4XX1	Maternal care for (suspected) damage to fetus from alcohol, fetus 1	Diagnosis	ICD-10-CM
O35.4XX2	Maternal care for (suspected) damage to fetus from alcohol, fetus 2	Diagnosis	ICD-10-CM
O35.4XX3	Maternal care for (suspected) damage to fetus from alcohol, fetus 3	Diagnosis	ICD-10-CM
O35.4XX4	Maternal care for (suspected) damage to fetus from alcohol, fetus 4	Diagnosis	ICD-10-CM
O35.4XX5	Maternal care for (suspected) damage to fetus from alcohol, fetus 5	Diagnosis	ICD-10-CM

**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
O35.4XX9	Maternal care for (suspected) damage to fetus from alcohol, other fetus	Diagnosis	ICD-10-CM
O99.31	Alcohol use complicating pregnancy, childbirth, and the puerperium	Diagnosis	ICD-10-CM
O99.310	Alcohol use complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O99.311	Alcohol use complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99.312	Alcohol use complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99.313	Alcohol use complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O99.314	Alcohol use complicating childbirth	Diagnosis	ICD-10-CM
O99.315	Alcohol use complicating the puerperium	Diagnosis	ICD-10-CM
P04.3	Newborn affected by maternal use of alcohol	Diagnosis	ICD-10-CM
Q86.0	Fetal alcohol syndrome (dysmorphic)	Diagnosis	ICD-10-CM
R78.0	Finding of alcohol in blood	Diagnosis	ICD-10-CM
T51	Toxic effect of alcohol	Diagnosis	ICD-10-CM
T51.0X2A	Toxic effect of ethanol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.0X3A	Toxic effect of ethanol, assault, initial encounter	Diagnosis	ICD-10-CM
T51.0X4A	Toxic effect of ethanol, undetermined, initial encounter	Diagnosis	ICD-10-CM
T51.1X2A	Toxic effect of methanol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.1X3A	Toxic effect of methanol, assault, initial encounter	Diagnosis	ICD-10-CM
T51.1X4A	Toxic effect of methanol, undetermined, initial encounter	Diagnosis	ICD-10-CM
T51.2X2A	Toxic effect of 2-Propanol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.2X3A	Toxic effect of 2-Propanol, assault, initial encounter	Diagnosis	ICD-10-CM
T51.2X4A	Toxic effect of 2-Propanol, undetermined, initial encounter	Diagnosis	ICD-10-CM
T51.8	Toxic effect of other alcohols	Diagnosis	ICD-10-CM
T51.8X	Toxic effect of other alcohols	Diagnosis	ICD-10-CM
T51.8X2	Toxic effect of other alcohols, intentional self-harm	Diagnosis	ICD-10-CM
T51.8X2A	Toxic effect of other alcohols, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.8X2D	Toxic effect of other alcohols, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.8X2S	Toxic effect of other alcohols, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.8X3	Toxic effect of other alcohols, assault	Diagnosis	ICD-10-CM
T51.8X3A	Toxic effect of other alcohols, assault, initial encounter	Diagnosis	ICD-10-CM
T51.8X3D	Toxic effect of other alcohols, assault, subsequent encounter	Diagnosis	ICD-10-CM
T51.8X3S	Toxic effect of other alcohols, assault, sequela	Diagnosis	ICD-10-CM
T51.8X4	Toxic effect of other alcohols, undetermined	Diagnosis	ICD-10-CM
T51.8X4A	Toxic effect of other alcohols, undetermined, initial encounter	Diagnosis	ICD-10-CM
T51.8X4D	Toxic effect of other alcohols, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T51.8X4S	Toxic effect of other alcohols, undetermined, sequela	Diagnosis	ICD-10-CM
T51.9	Toxic effect of unspecified alcohol	Diagnosis	ICD-10-CM
T51.92	Toxic effect of unspecified alcohol, intentional self-harm	Diagnosis	ICD-10-CM
T51.92XA	Toxic effect of unspecified alcohol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.92XD	Toxic effect of unspecified alcohol, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.92XS	Toxic effect of unspecified alcohol, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.93	Toxic effect of unspecified alcohol, assault	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
T51.93XA	Toxic effect of unspecified alcohol, assault, initial encounter	Diagnosis	ICD-10-CM
T51.93XD	Toxic effect of unspecified alcohol, assault, subsequent encounter	Diagnosis	ICD-10-CM
T51.93XS	Toxic effect of unspecified alcohol, assault, sequela	Diagnosis	ICD-10-CM
T51.94	Toxic effect of unspecified alcohol, undetermined	Diagnosis	ICD-10-CM
T51.94XA	Toxic effect of unspecified alcohol, undetermined, initial encounter	Diagnosis	ICD-10-CM
T51.94XD	Toxic effect of unspecified alcohol, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T51.94XS	Toxic effect of unspecified alcohol, undetermined, sequela	Diagnosis	ICD-10-CM
V11.3	Personal history of alcoholism	Diagnosis	ICD-9-CM
Y90	Evidence of alcohol involvement determined by blood alcohol level	Diagnosis	ICD-10-CM
Y90.0	Blood alcohol level of less than 20 mg/100 ml	Diagnosis	ICD-10-CM
Y90.1	Blood alcohol level of 20-39 mg/100 ml	Diagnosis	ICD-10-CM
Y90.2	Blood alcohol level of 40-59 mg/100 ml	Diagnosis	ICD-10-CM
Y90.3	Blood alcohol level of 60-79 mg/100 ml	Diagnosis	ICD-10-CM
Y90.4	Blood alcohol level of 80-99 mg/100 ml	Diagnosis	ICD-10-CM
Y90.5	Blood alcohol level of 100-119 mg/100 ml	Diagnosis	ICD-10-CM
Y90.6	Blood alcohol level of 120-199 mg/100 ml	Diagnosis	ICD-10-CM
Y90.7	Blood alcohol level of 200-239 mg/100 ml	Diagnosis	ICD-10-CM
Y90.8	Blood alcohol level of 240 mg/100 ml or more	Diagnosis	ICD-10-CM
Y90.9	Presence of alcohol in blood, level not specified	Diagnosis	ICD-10-CM
Z02.83	Encounter for blood-alcohol and blood-drug test	Diagnosis	ICD-10-CM
Z71.4	Alcohol abuse counseling and surveillance	Diagnosis	ICD-10-CM
Z71.41	Alcohol abuse counseling and surveillance of alcoholic	Diagnosis	ICD-10-CM
<b>Drug Abuse or Dependence Diagnosis Codes</b>			
292	Drug-induced mental disorders	Diagnosis	ICD-9-CM
292.0	Drug withdrawal	Diagnosis	ICD-9-CM
292.1	Drug-induced psychotic disorder	Diagnosis	ICD-9-CM
292.11	Drug-induced psychotic disorder with delusions	Diagnosis	ICD-9-CM
292.12	Drug-induced psychotic disorder with hallucinations	Diagnosis	ICD-9-CM
292.2	Pathological drug intoxication	Diagnosis	ICD-9-CM
292.8	Other specified drug-induced mental disorders	Diagnosis	ICD-9-CM
292.81	Drug-induced delirium	Diagnosis	ICD-9-CM
292.82	Drug-induced persisting dementia	Diagnosis	ICD-9-CM
292.83	Drug-induced persisting amnestic disorder	Diagnosis	ICD-9-CM
292.84	Drug-induced mood disorder	Diagnosis	ICD-9-CM
292.85	Drug induced sleep disorders	Diagnosis	ICD-9-CM
292.89	Other specified drug-induced mental disorder	Diagnosis	ICD-9-CM
292.9	Unspecified drug-induced mental disorder	Diagnosis	ICD-9-CM
304	Drug dependence	Diagnosis	ICD-9-CM
304.6	Other specified drug dependence	Diagnosis	ICD-9-CM
304.60	Other specified drug dependence, unspecified	Diagnosis	ICD-9-CM
304.61	Other specified drug dependence, continuous	Diagnosis	ICD-9-CM
304.62	Other specified drug dependence, episodic	Diagnosis	ICD-9-CM
304.63	Other specified drug dependence, in remission	Diagnosis	ICD-9-CM
304.7	Combinations of opioid type drug with any other drug dependence	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
304.70	Combinations of opioid type drug with any other drug dependence, unspecified	Diagnosis	ICD-9-CM
304.71	Combinations of opioid type drug with any other drug dependence, continuous	Diagnosis	ICD-9-CM
304.72	Combinations of opioid type drug with any other drug dependence, episodic	Diagnosis	ICD-9-CM
304.73	Combinations of opioid type drug with any other drug dependence, in remission	Diagnosis	ICD-9-CM
304.8	Combinations of drug dependence excluding opioid type drug	Diagnosis	ICD-9-CM
304.80	Combinations of drug dependence excluding opioid type drug, unspecified	Diagnosis	ICD-9-CM
304.81	Combinations of drug dependence excluding opioid type drug, continuous	Diagnosis	ICD-9-CM
304.82	Combinations of drug dependence excluding opioid type drug, episodic	Diagnosis	ICD-9-CM
304.83	Combinations of drug dependence excluding opioid type drug, in remission	Diagnosis	ICD-9-CM
304.9	Unspecified drug dependence	Diagnosis	ICD-9-CM
304.90	Unspecified drug dependence, unspecified	Diagnosis	ICD-9-CM
304.91	Unspecified drug dependence, continuous	Diagnosis	ICD-9-CM
304.92	Unspecified drug dependence, episodic	Diagnosis	ICD-9-CM
304.93	Unspecified drug dependence, in remission	Diagnosis	ICD-9-CM
305	Nondependent abuse of drugs	Diagnosis	ICD-9-CM
305.2	Nondependent cannabis abuse	Diagnosis	ICD-9-CM
305.20	Nondependent cannabis abuse, unspecified	Diagnosis	ICD-9-CM
305.21	Nondependent cannabis abuse, continuous	Diagnosis	ICD-9-CM
305.22	Nondependent cannabis abuse, episodic	Diagnosis	ICD-9-CM
305.23	Nondependent cannabis abuse, in remission	Diagnosis	ICD-9-CM
305.3	Nondependent hallucinogen abuse	Diagnosis	ICD-9-CM
305.30	Nondependent hallucinogen abuse, unspecified	Diagnosis	ICD-9-CM
305.31	Nondependent hallucinogen abuse, continuous	Diagnosis	ICD-9-CM
305.32	Nondependent hallucinogen abuse, episodic	Diagnosis	ICD-9-CM
305.33	Nondependent hallucinogen abuse, in remission	Diagnosis	ICD-9-CM
305.4	Nondependent sedative, hypnotic or anxiolytic abuse	Diagnosis	ICD-9-CM
305.40	Nondependent sedative, hypnotic or anxiolytic abuse, unspecified	Diagnosis	ICD-9-CM
305.41	Nondependent sedative hypnotic or anxiolytic abuse, continuous	Diagnosis	ICD-9-CM
305.42	Nondependent sedative, hypnotic or anxiolytic abuse, episodic	Diagnosis	ICD-9-CM
305.43	Nondependent sedative, hypnotic or anxiolytic abuse, in remission	Diagnosis	ICD-9-CM
305.5	Nondependent opioid abuse	Diagnosis	ICD-9-CM
305.50	Nondependent opioid abuse, unspecified	Diagnosis	ICD-9-CM
305.51	Nondependent opioid abuse, continuous	Diagnosis	ICD-9-CM
305.52	Nondependent opioid abuse, episodic	Diagnosis	ICD-9-CM
305.53	Nondependent opioid abuse, in remission	Diagnosis	ICD-9-CM
305.6	Nondependent cocaine abuse	Diagnosis	ICD-9-CM
305.60	Nondependent cocaine abuse, unspecified	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
305.61	Nondependent cocaine abuse, continuous	Diagnosis	ICD-9-CM
305.62	Nondependent cocaine abuse, episodic	Diagnosis	ICD-9-CM
305.63	Nondependent cocaine abuse, in remission	Diagnosis	ICD-9-CM
305.7	Nondependent amphetamine or related acting sympathomimetic abuse, unspecified	Diagnosis	ICD-9-CM
305.70	Nondependent amphetamine or related acting sympathomimetic abuse, unspecified	Diagnosis	ICD-9-CM
305.71	Nondependent amphetamine or related acting sympathomimetic abuse, continuous	Diagnosis	ICD-9-CM
305.72	Nondependent amphetamine or related acting sympathomimetic abuse, episodic	Diagnosis	ICD-9-CM
305.73	Nondependent amphetamine or related acting sympathomimetic abuse, in remission	Diagnosis	ICD-9-CM
305.8	Nondependent antidepressant type abuse	Diagnosis	ICD-9-CM
305.80	Nondependent antidepressant type abuse, unspecified	Diagnosis	ICD-9-CM
305.81	Nondependent antidepressant type abuse, continuous	Diagnosis	ICD-9-CM
305.82	Nondependent antidepressant type abuse, episodic	Diagnosis	ICD-9-CM
305.83	Nondependent antidepressant type abuse, in remission	Diagnosis	ICD-9-CM
305.9	Other, mixed, or unspecified nondependent drug abuse	Diagnosis	ICD-9-CM
305.90	Other, mixed, or unspecified nondependent drug abuse, unspecified	Diagnosis	ICD-9-CM
305.91	Other, mixed, or unspecified nondependent drug abuse, continuous	Diagnosis	ICD-9-CM
305.92	Other, mixed, or unspecified nondependent drug abuse, episodic	Diagnosis	ICD-9-CM
305.93	Other, mixed, or unspecified nondependent drug abuse, in remission	Diagnosis	ICD-9-CM
648.3	Maternal drug dependence complicating pregnancy, childbirth, or the puerperium	Diagnosis	ICD-9-CM
648.30	Maternal drug dependence complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care	Diagnosis	ICD-9-CM
648.31	Maternal drug dependence, with delivery	Diagnosis	ICD-9-CM
648.32	Maternal drug dependence, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
648.33	Maternal drug dependence, antepartum	Diagnosis	ICD-9-CM
648.34	Maternal drug dependence complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication	Diagnosis	ICD-9-CM
779.5	Drug withdrawal syndrome in newborn	Diagnosis	ICD-9-CM
F11.10	Opioid abuse, uncomplicated	Diagnosis	ICD-10-CM
F11.11	Opioid abuse, in remission	Diagnosis	ICD-10-CM
F11.120	Opioid abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F11.121	Opioid abuse with intoxication delirium	Diagnosis	ICD-10-CM
F11.122	Opioid abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F11.129	Opioid abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F11.14	Opioid abuse with opioid-induced mood disorder	Diagnosis	ICD-10-CM
F11.150	Opioid abuse with opioid-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F11.151	Opioid abuse with opioid-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F11.159	Opioid abuse with opioid-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F11.181	Opioid abuse with opioid-induced sexual dysfunction	Diagnosis	ICD-10-CM
F11.182	Opioid abuse with opioid-induced sleep disorder	Diagnosis	ICD-10-CM
F11.188	Opioid abuse with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.19	Opioid abuse with unspecified opioid-induced disorder	Diagnosis	ICD-10-CM
F11.220	Opioid dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F11.221	Opioid dependence with intoxication delirium	Diagnosis	ICD-10-CM
F11.222	Opioid dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F11.229	Opioid dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F11.23	Opioid dependence with withdrawal	Diagnosis	ICD-10-CM
F11.24	Opioid dependence with opioid-induced mood disorder	Diagnosis	ICD-10-CM
F11.250	Opioid dependence with opioid-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F11.251	Opioid dependence with opioid-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F11.259	Opioid dependence with opioid-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F11.281	Opioid dependence with opioid-induced sexual dysfunction	Diagnosis	ICD-10-CM
F11.282	Opioid dependence with opioid-induced sleep disorder	Diagnosis	ICD-10-CM
F11.288	Opioid dependence with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.29	Opioid dependence with unspecified opioid-induced disorder	Diagnosis	ICD-10-CM
F11.90	Opioid use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F11.920	Opioid use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F11.921	Opioid use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F11.922	Opioid use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F11.929	Opioid use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F11.93	Opioid use, unspecified with withdrawal	Diagnosis	ICD-10-CM
F11.94	Opioid use, unspecified with opioid-induced mood disorder	Diagnosis	ICD-10-CM
F11.950	Opioid use, unspecified with opioid-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F11.951	Opioid use, unspecified with opioid-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F11.959	Opioid use, unspecified with opioid-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F11.981	Opioid use, unspecified with opioid-induced sexual dysfunction	Diagnosis	ICD-10-CM
F11.982	Opioid use, unspecified with opioid-induced sleep disorder	Diagnosis	ICD-10-CM
F11.988	Opioid use, unspecified with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.99	Opioid use, unspecified with unspecified opioid-induced disorder	Diagnosis	ICD-10-CM
F12.10	Cannabis abuse, uncomplicated	Diagnosis	ICD-10-CM
F12.11	Cannabis abuse, in remission	Diagnosis	ICD-10-CM
F12.120	Cannabis abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F12.121	Cannabis abuse with intoxication delirium	Diagnosis	ICD-10-CM
F12.122	Cannabis abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F12.129	Cannabis abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F12.150	Cannabis abuse with psychotic disorder with delusions	Diagnosis	ICD-10-CM
F12.151	Cannabis abuse with psychotic disorder with hallucinations	Diagnosis	ICD-10-CM



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Code	Description	Code Category	Code Type
F12.159	Cannabis abuse with psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F12.180	Cannabis abuse with cannabis-induced anxiety disorder	Diagnosis	ICD-10-CM
F12.188	Cannabis abuse with other cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.19	Cannabis abuse with unspecified cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.220	Cannabis dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F12.221	Cannabis dependence with intoxication delirium	Diagnosis	ICD-10-CM
F12.222	Cannabis dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F12.229	Cannabis dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F12.250	Cannabis dependence with psychotic disorder with delusions	Diagnosis	ICD-10-CM
F12.251	Cannabis dependence with psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F12.259	Cannabis dependence with psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F12.280	Cannabis dependence with cannabis-induced anxiety disorder	Diagnosis	ICD-10-CM
F12.288	Cannabis dependence with other cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.29	Cannabis dependence with unspecified cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.90	Cannabis use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F12.920	Cannabis use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F12.921	Cannabis use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F12.922	Cannabis use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F12.929	Cannabis use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F12.950	Cannabis use, unspecified with psychotic disorder with delusions	Diagnosis	ICD-10-CM
F12.951	Cannabis use, unspecified with psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F12.959	Cannabis use, unspecified with psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F12.980	Cannabis use, unspecified with anxiety disorder	Diagnosis	ICD-10-CM
F12.988	Cannabis use, unspecified with other cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.99	Cannabis use, unspecified with unspecified cannabis-induced disorder	Diagnosis	ICD-10-CM
F13.10	Sedative, hypnotic or anxiolytic abuse, uncomplicated	Diagnosis	ICD-10-CM
F13.11	Sedative, hypnotic or anxiolytic abuse, in remission	Diagnosis	ICD-10-CM
F13.120	Sedative, hypnotic or anxiolytic abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F13.121	Sedative, hypnotic or anxiolytic abuse with intoxication delirium	Diagnosis	ICD-10-CM
F13.129	Sedative, hypnotic or anxiolytic abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F13.14	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced mood disorder	Diagnosis	ICD-10-CM
F13.150	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F13.151	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F13.159	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F13.180	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced anxiety disorder	Diagnosis	ICD-10-CM

**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
F13.181	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced sexual dysfunction	Diagnosis	ICD-10-CM
F13.182	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced sleep disorder	Diagnosis	ICD-10-CM
F13.188	Sedative, hypnotic or anxiolytic abuse with other sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.19	Sedative, hypnotic or anxiolytic abuse with unspecified sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.220	Sedative, hypnotic or anxiolytic dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F13.221	Sedative, hypnotic or anxiolytic dependence with intoxication delirium	Diagnosis	ICD-10-CM
F13.229	Sedative, hypnotic or anxiolytic dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F13.230	Sedative, hypnotic or anxiolytic dependence with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F13.231	Sedative, hypnotic or anxiolytic dependence with withdrawal delirium	Diagnosis	ICD-10-CM
F13.232	Sedative, hypnotic or anxiolytic dependence with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F13.239	Sedative, hypnotic or anxiolytic dependence with withdrawal, unspecified	Diagnosis	ICD-10-CM
F13.24	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced mood disorder	Diagnosis	ICD-10-CM
F13.250	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F13.251	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F13.259	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F13.26	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F13.27	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced persisting dementia	Diagnosis	ICD-10-CM
F13.280	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced anxiety disorder	Diagnosis	ICD-10-CM
F13.281	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced sexual dysfunction	Diagnosis	ICD-10-CM
F13.282	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced sleep disorder	Diagnosis	ICD-10-CM
F13.288	Sedative, hypnotic or anxiolytic dependence with other sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.29	Sedative, hypnotic or anxiolytic dependence with unspecified sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.90	Sedative, hypnotic, or anxiolytic use, unspecified, uncomplicated	Diagnosis	ICD-10-CM



**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
F13.920	Sedative, hypnotic or anxiolytic use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F13.921	Sedative, hypnotic or anxiolytic use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F13.929	Sedative, hypnotic or anxiolytic use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F13.930	Sedative, hypnotic or anxiolytic use, unspecified with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F13.931	Sedative, hypnotic or anxiolytic use, unspecified with withdrawal delirium	Diagnosis	ICD-10-CM
F13.932	Sedative, hypnotic or anxiolytic use, unspecified with withdrawal with perceptual disturbances	Diagnosis	ICD-10-CM
F13.939	Sedative, hypnotic or anxiolytic use, unspecified with withdrawal, unspecified	Diagnosis	ICD-10-CM
F13.94	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced mood disorder	Diagnosis	ICD-10-CM
F13.950	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F13.951	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F13.959	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F13.96	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F13.97	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced persisting dementia	Diagnosis	ICD-10-CM
F13.980	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced anxiety disorder	Diagnosis	ICD-10-CM
F13.981	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced sexual dysfunction	Diagnosis	ICD-10-CM
F13.982	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced sleep disorder	Diagnosis	ICD-10-CM
F13.988	Sedative, hypnotic or anxiolytic use, unspecified with other sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.99	Sedative, hypnotic or anxiolytic use, unspecified with unspecified sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F14.10	Cocaine abuse, uncomplicated	Diagnosis	ICD-10-CM
F14.11	Cocaine abuse, in remission	Diagnosis	ICD-10-CM
F14.120	Cocaine abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F14.121	Cocaine abuse with intoxication with delirium	Diagnosis	ICD-10-CM
F14.122	Cocaine abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F14.129	Cocaine abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F14.14	Cocaine abuse with cocaine-induced mood disorder	Diagnosis	ICD-10-CM
F14.150	Cocaine abuse with cocaine-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM

**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
F14.151	Cocaine abuse with cocaine-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F14.159	Cocaine abuse with cocaine-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F14.180	Cocaine abuse with cocaine-induced anxiety disorder	Diagnosis	ICD-10-CM
F14.181	Cocaine abuse with cocaine-induced sexual dysfunction	Diagnosis	ICD-10-CM
F14.182	Cocaine abuse with cocaine-induced sleep disorder	Diagnosis	ICD-10-CM
F14.188	Cocaine abuse with other cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.19	Cocaine abuse with unspecified cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.220	Cocaine dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F14.221	Cocaine dependence with intoxication delirium	Diagnosis	ICD-10-CM
F14.222	Cocaine dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F14.229	Cocaine dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F14.23	Cocaine dependence with withdrawal	Diagnosis	ICD-10-CM
F14.24	Cocaine dependence with cocaine-induced mood disorder	Diagnosis	ICD-10-CM
F14.250	Cocaine dependence with cocaine-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F14.251	Cocaine dependence with cocaine-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F14.259	Cocaine dependence with cocaine-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F14.280	Cocaine dependence with cocaine-induced anxiety disorder	Diagnosis	ICD-10-CM
F14.281	Cocaine dependence with cocaine-induced sexual dysfunction	Diagnosis	ICD-10-CM
F14.282	Cocaine dependence with cocaine-induced sleep disorder	Diagnosis	ICD-10-CM
F14.288	Cocaine dependence with other cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.29	Cocaine dependence with unspecified cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.90	Cocaine use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F14.920	Cocaine use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F14.921	Cocaine use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F14.922	Cocaine use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F14.929	Cocaine use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F14.94	Cocaine use, unspecified with cocaine-induced mood disorder	Diagnosis	ICD-10-CM
F14.950	Cocaine use, unspecified with cocaine-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F14.951	Cocaine use, unspecified with cocaine-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F14.959	Cocaine use, unspecified with cocaine-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F14.980	Cocaine use, unspecified with cocaine-induced anxiety disorder	Diagnosis	ICD-10-CM
F14.981	Cocaine use, unspecified with cocaine-induced sexual dysfunction	Diagnosis	ICD-10-CM
F14.982	Cocaine use, unspecified with cocaine-induced sleep disorder	Diagnosis	ICD-10-CM
F14.988	Cocaine use, unspecified with other cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.99	Cocaine use, unspecified with unspecified cocaine-induced disorder	Diagnosis	ICD-10-CM
F15.10	Other stimulant abuse, uncomplicated	Diagnosis	ICD-10-CM
F15.11	Other stimulant abuse, in remission	Diagnosis	ICD-10-CM

**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
F15.120	Other stimulant abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F15.121	Other stimulant abuse with intoxication delirium	Diagnosis	ICD-10-CM
F15.122	Other stimulant abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F15.129	Other stimulant abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F15.14	Other stimulant abuse with stimulant-induced mood disorder	Diagnosis	ICD-10-CM
F15.150	Other stimulant abuse with stimulant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F15.151	Other stimulant abuse with stimulant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F15.159	Other stimulant abuse with stimulant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F15.180	Other stimulant abuse with stimulant-induced anxiety disorder	Diagnosis	ICD-10-CM
F15.181	Other stimulant abuse with stimulant-induced sexual dysfunction	Diagnosis	ICD-10-CM
F15.182	Other stimulant abuse with stimulant-induced sleep disorder	Diagnosis	ICD-10-CM
F15.188	Other stimulant abuse with other stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.19	Other stimulant abuse with unspecified stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.220	Other stimulant dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F15.221	Other stimulant dependence with intoxication delirium	Diagnosis	ICD-10-CM
F15.222	Other stimulant dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F15.229	Other stimulant dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F15.23	Other stimulant dependence with withdrawal	Diagnosis	ICD-10-CM
F15.24	Other stimulant dependence with stimulant-induced mood disorder	Diagnosis	ICD-10-CM
F15.250	Other stimulant dependence with stimulant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F15.251	Other stimulant dependence with stimulant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F15.259	Other stimulant dependence with stimulant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F15.280	Other stimulant dependence with stimulant-induced anxiety disorder	Diagnosis	ICD-10-CM
F15.281	Other stimulant dependence with stimulant-induced sexual dysfunction	Diagnosis	ICD-10-CM
F15.282	Other stimulant dependence with stimulant-induced sleep disorder	Diagnosis	ICD-10-CM
F15.288	Other stimulant dependence with other stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.29	Other stimulant dependence with unspecified stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.90	Other stimulant use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F15.920	Other stimulant use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F15.921	Other stimulant use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F15.922	Other stimulant use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F15.929	Other stimulant use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F15.93	Other stimulant use, unspecified with withdrawal	Diagnosis	ICD-10-CM
F15.94	Other stimulant use, unspecified with stimulant-induced mood disorder	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F15.950	Other stimulant use, unspecified with stimulant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F15.951	Other stimulant use, unspecified with stimulant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F15.959	Other stimulant use, unspecified with stimulant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F15.980	Other stimulant use, unspecified with stimulant-induced anxiety disorder	Diagnosis	ICD-10-CM
F15.981	Other stimulant use, unspecified with stimulant-induced sexual dysfunction	Diagnosis	ICD-10-CM
F15.982	Other stimulant use, unspecified with stimulant-induced sleep disorder	Diagnosis	ICD-10-CM
F15.988	Other stimulant use, unspecified with other stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.99	Other stimulant use, unspecified with unspecified stimulant-induced disorder	Diagnosis	ICD-10-CM
F16.10	Hallucinogen abuse, uncomplicated	Diagnosis	ICD-10-CM
F16.11	Hallucinogen abuse, in remission	Diagnosis	ICD-10-CM
F16.120	Hallucinogen abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F16.121	Hallucinogen abuse with intoxication with delirium	Diagnosis	ICD-10-CM
F16.122	Hallucinogen abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F16.129	Hallucinogen abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F16.14	Hallucinogen abuse with hallucinogen-induced mood disorder	Diagnosis	ICD-10-CM
F16.150	Hallucinogen abuse with hallucinogen-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F16.151	Hallucinogen abuse with hallucinogen-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F16.159	Hallucinogen abuse with hallucinogen-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F16.180	Hallucinogen abuse with hallucinogen-induced anxiety disorder	Diagnosis	ICD-10-CM
F16.183	Hallucinogen abuse with hallucinogen persisting perception disorder (flashbacks)	Diagnosis	ICD-10-CM
F16.188	Hallucinogen abuse with other hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.19	Hallucinogen abuse with unspecified hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.220	Hallucinogen dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F16.221	Hallucinogen dependence with intoxication with delirium	Diagnosis	ICD-10-CM
F16.229	Hallucinogen dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F16.24	Hallucinogen dependence with hallucinogen-induced mood disorder	Diagnosis	ICD-10-CM
F16.250	Hallucinogen dependence with hallucinogen-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F16.251	Hallucinogen dependence with hallucinogen-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F16.259	Hallucinogen dependence with hallucinogen-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F16.280	Hallucinogen dependence with hallucinogen-induced anxiety disorder	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F16.283	Hallucinogen dependence with hallucinogen persisting perception disorder (flashbacks)	Diagnosis	ICD-10-CM
F16.288	Hallucinogen dependence with other hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.29	Hallucinogen dependence with unspecified hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.90	Hallucinogen use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F16.920	Hallucinogen use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F16.921	Hallucinogen use, unspecified with intoxication with delirium	Diagnosis	ICD-10-CM
F16.929	Hallucinogen use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F16.94	Hallucinogen use, unspecified with hallucinogen-induced mood disorder	Diagnosis	ICD-10-CM
F16.950	Hallucinogen use, unspecified with hallucinogen-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F16.951	Hallucinogen use, unspecified with hallucinogen-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F16.959	Hallucinogen use, unspecified with hallucinogen-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F16.980	Hallucinogen use, unspecified with hallucinogen-induced anxiety disorder	Diagnosis	ICD-10-CM
F16.983	Hallucinogen use, unspecified with hallucinogen persisting perception disorder (flashbacks)	Diagnosis	ICD-10-CM
F16.988	Hallucinogen use, unspecified with other hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.99	Hallucinogen use, unspecified with unspecified hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F17.203	Nicotine dependence unspecified, with withdrawal	Diagnosis	ICD-10-CM
F17.208	Nicotine dependence, unspecified, with other nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.209	Nicotine dependence, unspecified, with unspecified nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.213	Nicotine dependence, cigarettes, with withdrawal	Diagnosis	ICD-10-CM
F17.218	Nicotine dependence, cigarettes, with other nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.219	Nicotine dependence, cigarettes, with unspecified nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.223	Nicotine dependence, chewing tobacco, with withdrawal	Diagnosis	ICD-10-CM
F17.228	Nicotine dependence, chewing tobacco, with other nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.229	Nicotine dependence, chewing tobacco, with unspecified nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.293	Nicotine dependence, other tobacco product, with withdrawal	Diagnosis	ICD-10-CM
F17.298	Nicotine dependence, other tobacco product, with other nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.299	Nicotine dependence, other tobacco product, with unspecified nicotine-induced disorders	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F18.10	Inhalant abuse, uncomplicated	Diagnosis	ICD-10-CM
F18.11	Inhalant abuse, in remission	Diagnosis	ICD-10-CM
F18.120	Inhalant abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F18.121	Inhalant abuse with intoxication delirium	Diagnosis	ICD-10-CM
F18.129	Inhalant abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F18.14	Inhalant abuse with inhalant-induced mood disorder	Diagnosis	ICD-10-CM
F18.150	Inhalant abuse with inhalant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F18.151	Inhalant abuse with inhalant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F18.159	Inhalant abuse with inhalant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F18.17	Inhalant abuse with inhalant-induced dementia	Diagnosis	ICD-10-CM
F18.180	Inhalant abuse with inhalant-induced anxiety disorder	Diagnosis	ICD-10-CM
F18.188	Inhalant abuse with other inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.19	Inhalant abuse with unspecified inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.220	Inhalant dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F18.221	Inhalant dependence with intoxication delirium	Diagnosis	ICD-10-CM
F18.229	Inhalant dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F18.24	Inhalant dependence with inhalant-induced mood disorder	Diagnosis	ICD-10-CM
F18.250	Inhalant dependence with inhalant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F18.251	Inhalant dependence with inhalant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F18.259	Inhalant dependence with inhalant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F18.27	Inhalant dependence with inhalant-induced dementia	Diagnosis	ICD-10-CM
F18.280	Inhalant dependence with inhalant-induced anxiety disorder	Diagnosis	ICD-10-CM
F18.288	Inhalant dependence with other inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.29	Inhalant dependence with unspecified inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.90	Inhalant use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F18.920	Inhalant use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F18.921	Inhalant use, unspecified with intoxication with delirium	Diagnosis	ICD-10-CM
F18.929	Inhalant use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F18.94	Inhalant use, unspecified with inhalant-induced mood disorder	Diagnosis	ICD-10-CM
F18.950	Inhalant use, unspecified with inhalant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F18.951	Inhalant use, unspecified with inhalant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F18.959	Inhalant use, unspecified with inhalant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F18.97	Inhalant use, unspecified with inhalant-induced persisting dementia	Diagnosis	ICD-10-CM
F18.980	Inhalant use, unspecified with inhalant-induced anxiety disorder	Diagnosis	ICD-10-CM
F18.988	Inhalant use, unspecified with other inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.99	Inhalant use, unspecified with unspecified inhalant-induced disorder	Diagnosis	ICD-10-CM
F19.10	Other psychoactive substance abuse, uncomplicated	Diagnosis	ICD-10-CM



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Code	Description	Code Category	Code Type
F19.11	Other psychoactive substance abuse, in remission	Diagnosis	ICD-10-CM
F19.120	Other psychoactive substance abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F19.121	Other psychoactive substance abuse with intoxication delirium	Diagnosis	ICD-10-CM
F19.122	Other psychoactive substance abuse with intoxication with perceptual disturbances	Diagnosis	ICD-10-CM
F19.129	Other psychoactive substance abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F19.14	Other psychoactive substance abuse with psychoactive substance-induced mood disorder	Diagnosis	ICD-10-CM
F19.150	Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F19.151	Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F19.159	Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F19.16	Other psychoactive substance abuse with psychoactive substance-induced persisting amnesic disorder	Diagnosis	ICD-10-CM
F19.17	Other psychoactive substance abuse with psychoactive substance-induced persisting dementia	Diagnosis	ICD-10-CM
F19.180	Other psychoactive substance abuse with psychoactive substance-induced anxiety disorder	Diagnosis	ICD-10-CM
F19.181	Other psychoactive substance abuse with psychoactive substance-induced sexual dysfunction	Diagnosis	ICD-10-CM
F19.182	Other psychoactive substance abuse with psychoactive substance-induced sleep disorder	Diagnosis	ICD-10-CM
F19.188	Other psychoactive substance abuse with other psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.19	Other psychoactive substance abuse with unspecified psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.21	Other psychoactive substance dependence, in remission	Diagnosis	ICD-10-CM
F19.220	Other psychoactive substance dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F19.221	Other psychoactive substance dependence with intoxication delirium	Diagnosis	ICD-10-CM
F19.222	Other psychoactive substance dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F19.229	Other psychoactive substance dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F19.230	Other psychoactive substance dependence with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F19.231	Other psychoactive substance dependence with withdrawal delirium	Diagnosis	ICD-10-CM
F19.232	Other psychoactive substance dependence with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F19.239	Other psychoactive substance dependence with withdrawal, unspecified	Diagnosis	ICD-10-CM
F19.24	Other psychoactive substance dependence with psychoactive substance-induced mood disorder	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F19.250	Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F19.251	Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F19.259	Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F19.26	Other psychoactive substance dependence with psychoactive substance-induced persisting amnesic disorder	Diagnosis	ICD-10-CM
F19.27	Other psychoactive substance dependence with psychoactive substance-induced persisting dementia	Diagnosis	ICD-10-CM
F19.280	Other psychoactive substance dependence with psychoactive substance-induced anxiety disorder	Diagnosis	ICD-10-CM
F19.281	Other psychoactive substance dependence with psychoactive substance-induced sexual dysfunction	Diagnosis	ICD-10-CM
F19.282	Other psychoactive substance dependence with psychoactive substance-induced sleep disorder	Diagnosis	ICD-10-CM
F19.288	Other psychoactive substance dependence with other psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.29	Other psychoactive substance dependence with unspecified psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.90	Other psychoactive substance use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F19.920	Other psychoactive substance use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F19.921	Other psychoactive substance use, unspecified with intoxication with delirium	Diagnosis	ICD-10-CM
F19.922	Other psychoactive substance use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F19.929	Other psychoactive substance use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F19.930	Other psychoactive substance use, unspecified with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F19.931	Other psychoactive substance use, unspecified with withdrawal delirium	Diagnosis	ICD-10-CM
F19.932	Other psychoactive substance use, unspecified with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F19.939	Other psychoactive substance use, unspecified with withdrawal, unspecified	Diagnosis	ICD-10-CM
F19.94	Other psychoactive substance use, unspecified with psychoactive substance-induced mood disorder	Diagnosis	ICD-10-CM
F19.950	Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F19.951	Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F19.959	Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM



**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
F19.96	Other psychoactive substance use, unspecified with psychoactive substance-induced persisting amnesic disorder	Diagnosis	ICD-10-CM
F19.97	Other psychoactive substance use, unspecified with psychoactive substance-induced persisting dementia	Diagnosis	ICD-10-CM
F19.980	Other psychoactive substance use, unspecified with psychoactive substance-induced anxiety disorder	Diagnosis	ICD-10-CM
F19.981	Other psychoactive substance use, unspecified with psychoactive substance-induced sexual dysfunction	Diagnosis	ICD-10-CM
F19.982	Other psychoactive substance use, unspecified with psychoactive substance-induced sleep disorder	Diagnosis	ICD-10-CM
F19.988	Other psychoactive substance use, unspecified with other psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.99	Other psychoactive substance use, unspecified with unspecified psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F55.0	Abuse of antacids	Diagnosis	ICD-10-CM
F55.1	Abuse of herbal or folk remedies	Diagnosis	ICD-10-CM
F55.2	Abuse of laxatives	Diagnosis	ICD-10-CM
F55.3	Abuse of steroids or hormones	Diagnosis	ICD-10-CM
F55.4	Abuse of vitamins	Diagnosis	ICD-10-CM
F55.8	Abuse of other non-psychoactive substances	Diagnosis	ICD-10-CM
O99.320	Drug use complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O99.321	Drug use complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99.322	Drug use complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99.323	Drug use complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O99.324	Drug use complicating childbirth	Diagnosis	ICD-10-CM
O99.325	Drug use complicating the puerperium	Diagnosis	ICD-10-CM
V65.42	Counseling on substance use and abuse	Diagnosis	ICD-9-CM
<b>History of CABG or PTCA Procedure and Diagnosis Codes</b>			

0.66	Percutaneous transluminal coronary angioplasty [PTCA]	Procedure	ICD-9-CM
027034Z	Dilation of Coronary Artery, One Artery with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
027035Z	Dilation of Coronary Artery, One Artery with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027036Z	Dilation of Coronary Artery, One Artery with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027037Z	Dilation of Coronary Artery, One Artery with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02703D6	Dilation of Coronary Artery, One Artery, Bifurcation, with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02703DZ	Dilation of Coronary Artery, One Artery with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02703EZ	Dilation of Coronary Artery, One Artery with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS

**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
02703F6	Dilation of Coronary Artery, One Artery, Bifurcation, with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02703FZ	Dilation of Coronary Artery, One Artery with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02703G6	Dilation of Coronary Artery, One Artery, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02703GZ	Dilation of Coronary Artery, One Artery with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02703T6	Dilation of Coronary Artery, One Artery, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02703TZ	Dilation of Coronary Artery, One Artery with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02703Z6	Dilation of Coronary Artery, One Artery, Bifurcation, Percutaneous Approach	Procedure	ICD-10-PCS
02703ZZ	Dilation of Coronary Artery, One Artery, Percutaneous Approach	Procedure	ICD-10-PCS
027044Z	Dilation of Coronary Artery, One Artery with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027045Z	Dilation of Coronary Artery, One Artery with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027046Z	Dilation of Coronary Artery, One Artery with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027047Z	Dilation of Coronary Artery, One Artery with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704D6	Dilation of Coronary Artery, One Artery, Bifurcation, with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704DZ	Dilation of Coronary Artery, One Artery with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704EZ	Dilation of Coronary Artery, One Artery with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704F6	Dilation of Coronary Artery, One Artery, Bifurcation, with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704FZ	Dilation of Coronary Artery, One Artery with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704G6	Dilation of Coronary Artery, One Artery, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704GZ	Dilation of Coronary Artery, One Artery with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704T6	Dilation of Coronary Artery, One Artery, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704TZ	Dilation of Coronary Artery, One Artery with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704Z6	Dilation of Coronary Artery, One Artery, Bifurcation, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704ZZ	Dilation of Coronary Artery, One Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
027134Z	Dilation of Coronary Artery, Two Arteries with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
027135Z	Dilation of Coronary Artery, Two Arteries with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027136Z	Dilation of Coronary Artery, Two Arteries with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027137Z	Dilation of Coronary Artery, Two Arteries with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02713D6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02713DZ	Dilation of Coronary Artery, Two Arteries with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02713EZ	Dilation of Coronary Artery, Two Arteries with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02713F6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02713FZ	Dilation of Coronary Artery, Two Arteries with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02713G6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02713GZ	Dilation of Coronary Artery, Two Arteries with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02713T6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02713TZ	Dilation of Coronary Artery, Two Arteries with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02713Z6	Dilation of Coronary Artery, Two Arteries, Bifurcation, Percutaneous Approach	Procedure	ICD-10-PCS
02713ZZ	Dilation of Coronary Artery, Two Arteries, Percutaneous Approach	Procedure	ICD-10-PCS
027144Z	Dilation of Coronary Artery, Two Arteries with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027145Z	Dilation of Coronary Artery, Two Arteries with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027146Z	Dilation of Coronary Artery, Two Arteries with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027147Z	Dilation of Coronary Artery, Two Arteries with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714D6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714DZ	Dilation of Coronary Artery, Two Arteries with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714EZ	Dilation of Coronary Artery, Two Arteries with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714F6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
02714FZ	Dilation of Coronary Artery, Two Arteries with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714G6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714GZ	Dilation of Coronary Artery, Two Arteries with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714T6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714TZ	Dilation of Coronary Artery, Two Arteries with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714Z6	Dilation of Coronary Artery, Two Arteries, Bifurcation, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714ZZ	Dilation of Coronary Artery, Two Arteries, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027234Z	Dilation of Coronary Artery, Three Arteries with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
027235Z	Dilation of Coronary Artery, Three Arteries with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027236Z	Dilation of Coronary Artery, Three Arteries with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027237Z	Dilation of Coronary Artery, Three Arteries with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02723D6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02723DZ	Dilation of Coronary Artery, Three Arteries with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02723EZ	Dilation of Coronary Artery, Three Arteries with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02723F6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02723FZ	Dilation of Coronary Artery, Three Arteries with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02723G6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02723GZ	Dilation of Coronary Artery, Three Arteries with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02723T6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02723TZ	Dilation of Coronary Artery, Three Arteries with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02723Z6	Dilation of Coronary Artery, Three Arteries, Bifurcation, Percutaneous Approach	Procedure	ICD-10-PCS
02723ZZ	Dilation of Coronary Artery, Three Arteries, Percutaneous Approach	Procedure	ICD-10-PCS
027244Z	Dilation of Coronary Artery, Three Arteries with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
027245Z	Dilation of Coronary Artery, Three Arteries with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027246Z	Dilation of Coronary Artery, Three Arteries with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027247Z	Dilation of Coronary Artery, Three Arteries with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724D6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724DZ	Dilation of Coronary Artery, Three Arteries with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724EZ	Dilation of Coronary Artery, Three Arteries with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724F6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724FZ	Dilation of Coronary Artery, Three Arteries with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724G6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724GZ	Dilation of Coronary Artery, Three Arteries with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724T6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724TZ	Dilation of Coronary Artery, Three Arteries with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724Z6	Dilation of Coronary Artery, Three Arteries, Bifurcation, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724ZZ	Dilation of Coronary Artery, Three Arteries, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027334Z	Dilation of Coronary Artery, Four or More Arteries with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
027335Z	Dilation of Coronary Artery, Four or More Arteries with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027336Z	Dilation of Coronary Artery, Four or More Arteries with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027337Z	Dilation of Coronary Artery, Four or More Arteries with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02733D6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02733DZ	Dilation of Coronary Artery, Four or More Arteries with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02733EZ	Dilation of Coronary Artery, Four or More Arteries with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02733F6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS

**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
02733FZ	Dilation of Coronary Artery, Four or More Arteries with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02733G6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02733GZ	Dilation of Coronary Artery, Four or More Arteries with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02733T6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02733TZ	Dilation of Coronary Artery, Four or More Arteries with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02733Z6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, Percutaneous Approach	Procedure	ICD-10-PCS
02733ZZ	Dilation of Coronary Artery, Four or More Arteries, Percutaneous Approach	Procedure	ICD-10-PCS
027344Z	Dilation of Coronary Artery, Four or More Arteries with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027345Z	Dilation of Coronary Artery, Four or More Arteries with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027346Z	Dilation of Coronary Artery, Four or More Arteries with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027347Z	Dilation of Coronary Artery, Four or More Arteries with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734D6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734DZ	Dilation of Coronary Artery, Four or More Arteries with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734EZ	Dilation of Coronary Artery, Four or More Arteries with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734F6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734FZ	Dilation of Coronary Artery, Four or More Arteries with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734G6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734GZ	Dilation of Coronary Artery, Four or More Arteries with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734T6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734TZ	Dilation of Coronary Artery, Four or More Arteries with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734Z6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS



**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
02734ZZ	Dilation of Coronary Artery, Four or More Arteries, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
2703000000	Dilation of Coronary Artery, One Artery, Bifurcation, with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
270346	Dilation of Coronary Artery, One Artery, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
270356	Dilation of Coronary Artery, One Artery, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
270366	Dilation of Coronary Artery, One Artery, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
270376	Dilation of Coronary Artery, One Artery, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
2704000000	Dilation of Coronary Artery, One Artery, Bifurcation, with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
270446	Dilation of Coronary Artery, One Artery, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
270456	Dilation of Coronary Artery, One Artery, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
270466	Dilation of Coronary Artery, One Artery, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
270476	Dilation of Coronary Artery, One Artery, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
2713000000	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
271346	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
271356	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
271366	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
271376	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
2714000000	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
271446	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
271456	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
271466	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
271476	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
2723000000	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
272346	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
272356	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
272366	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
272376	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
2724000000	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
272446	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
272456	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
272466	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
272476	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
2733000000	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
273346	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
273356	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
273366	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
273376	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
2734000000	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
273446	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
273456	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
273466	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS



**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
273476	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
36.01	Single vessel percutaneous transluminal coronary angioplasty [PTCA] or coronary atherectomy without mention of thrombolytic agent	Procedure	ICD-9-CM
36.02	Single vessel percutaneous transluminal coronary angioplasty [PTCA] or coronary atherectomy with thrombolytic agent	Procedure	ICD-9-CM
36.05	Multiple vessel (percutaneous) transluminal coronary angioplasty [PTCA] or coronary atherectomy performed during the same operation, with or without mention of thrombolytic agent	Procedure	ICD-9-CM
I25.7	Atherosclerosis of coronary artery bypass graft(s) and coronary artery of transplanted heart with angina pectoris	Diagnosis	ICD-10-CM
I25.70	Atherosclerosis of coronary artery bypass graft(s), unspecified, with angina pectoris	Diagnosis	ICD-10-CM
I25.700	Atherosclerosis of coronary artery bypass graft(s), unspecified, with unstable angina pectoris	Diagnosis	ICD-10-CM
I25.701	Atherosclerosis of coronary artery bypass graft(s), unspecified, with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25.702	Atherosclerosis of coronary artery bypass graft(s), unspecified, with refractory angina pectoris	Diagnosis	ICD-10-CM
I25.708	Atherosclerosis of coronary artery bypass graft(s), unspecified, with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25.709	Atherosclerosis of coronary artery bypass graft(s), unspecified, with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25.71	Atherosclerosis of autologous vein coronary artery bypass graft(s) with angina pectoris	Diagnosis	ICD-10-CM
I25.710	Atherosclerosis of autologous vein coronary artery bypass graft(s) with unstable angina pectoris	Diagnosis	ICD-10-CM
I25.711	Atherosclerosis of autologous vein coronary artery bypass graft(s) with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25.712	Atherosclerosis of autologous vein coronary artery bypass graft(s) with refractory angina pectoris	Diagnosis	ICD-10-CM
I25.718	Atherosclerosis of autologous vein coronary artery bypass graft(s) with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25.719	Atherosclerosis of autologous vein coronary artery bypass graft(s) with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25.72	Atherosclerosis of autologous artery coronary artery bypass graft(s) with angina pectoris	Diagnosis	ICD-10-CM
I25.720	Atherosclerosis of autologous artery coronary artery bypass graft(s) with unstable angina pectoris	Diagnosis	ICD-10-CM
I25.721	Atherosclerosis of autologous artery coronary artery bypass graft(s) with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25.722	Atherosclerosis of autologous artery coronary artery bypass graft(s) with refractory angina pectoris	Diagnosis	ICD-10-CM

**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
I25.728	Atherosclerosis of autologous artery coronary artery bypass graft(s) with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25.729	Atherosclerosis of autologous artery coronary artery bypass graft(s) with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25.73	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with angina pectoris	Diagnosis	ICD-10-CM
I25.730	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unstable angina pectoris	Diagnosis	ICD-10-CM
I25.731	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25.732	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with refractory angina pectoris	Diagnosis	ICD-10-CM
I25.738	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25.739	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25.79	Atherosclerosis of other coronary artery bypass graft(s) with angina pectoris	Diagnosis	ICD-10-CM
I25.790	Atherosclerosis of other coronary artery bypass graft(s) with unstable angina pectoris	Diagnosis	ICD-10-CM
I25.791	Atherosclerosis of other coronary artery bypass graft(s) with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25.792	Atherosclerosis of other coronary artery bypass graft(s) with refractory angina pectoris	Diagnosis	ICD-10-CM
I25.798	Atherosclerosis of other coronary artery bypass graft(s) with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25.799	Atherosclerosis of other coronary artery bypass graft(s) with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25.810	Atherosclerosis of coronary artery bypass graft(s) without angina pectoris	Diagnosis	ICD-10-CM
T82.2	Mechanical complication of coronary artery bypass graft and biological heart valve graft	Diagnosis	ICD-10-CM
T82.21	Mechanical complication of coronary artery bypass graft	Diagnosis	ICD-10-CM
T82.211	Breakdown (mechanical) of coronary artery bypass graft	Diagnosis	ICD-10-CM
T82.211A	Breakdown (mechanical) of coronary artery bypass graft, initial encounter	Diagnosis	ICD-10-CM
T82.211D	Breakdown (mechanical) of coronary artery bypass graft, subsequent encounter	Diagnosis	ICD-10-CM
T82.211S	Breakdown (mechanical) of coronary artery bypass graft, sequela	Diagnosis	ICD-10-CM
T82.212	Displacement of coronary artery bypass graft	Diagnosis	ICD-10-CM
T82.212A	Displacement of coronary artery bypass graft, initial encounter	Diagnosis	ICD-10-CM
T82.212D	Displacement of coronary artery bypass graft, subsequent encounter	Diagnosis	ICD-10-CM
T82.212S	Displacement of coronary artery bypass graft, sequela	Diagnosis	ICD-10-CM
T82.213	Leakage of coronary artery bypass graft	Diagnosis	ICD-10-CM
T82.213A	Leakage of coronary artery bypass graft, initial encounter	Diagnosis	ICD-10-CM

**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
T82.213D	Leakage of coronary artery bypass graft, subsequent encounter	Diagnosis	ICD-10-CM
T82.213S	Leakage of coronary artery bypass graft, sequela	Diagnosis	ICD-10-CM
T82.218	Other mechanical complication of coronary artery bypass graft	Diagnosis	ICD-10-CM
T82.218A	Other mechanical complication of coronary artery bypass graft, initial encounter	Diagnosis	ICD-10-CM
T82.218D	Other mechanical complication of coronary artery bypass graft, subsequent encounter	Diagnosis	ICD-10-CM
T82.218S	Other mechanical complication of coronary artery bypass graft, sequela	Diagnosis	ICD-10-CM
V45.81	Postprocedural aortocoronary bypass status	Diagnosis	ICD-9-CM
V45.82	Postprocedural percutaneous transluminal coronary angioplasty status	Diagnosis	ICD-9-CM
Z95.1	Presence of aortocoronary bypass graft	Diagnosis	ICD-10-CM
Z95.5	Presence of coronary angioplasty implant and graft	Diagnosis	ICD-10-CM
Z98.61	Coronary angioplasty status	Diagnosis	ICD-10-CM
<b>History of Sudden Cardiac Arrest Diagnosis Codes</b>			
427.5	Cardiac arrest	Diagnosis	ICD-9-CM
779.85	Cardiac arrest of newborn	Diagnosis	ICD-9-CM
I46	Cardiac arrest	Diagnosis	ICD-10-CM
I46.2	Cardiac arrest due to underlying cardiac condition	Diagnosis	ICD-10-CM
I46.8	Cardiac arrest due to other underlying condition	Diagnosis	ICD-10-CM
I46.9	Cardiac arrest, cause unspecified	Diagnosis	ICD-10-CM
I97.12	Postprocedural cardiac arrest	Diagnosis	ICD-10-CM
I97.120	Postprocedural cardiac arrest following cardiac surgery	Diagnosis	ICD-10-CM
I97.121	Postprocedural cardiac arrest following other surgery	Diagnosis	ICD-10-CM
I97.71	Intraoperative cardiac arrest	Diagnosis	ICD-10-CM
I97.710	Intraoperative cardiac arrest during cardiac surgery	Diagnosis	ICD-10-CM
I97.711	Intraoperative cardiac arrest during other surgery	Diagnosis	ICD-10-CM
O03.36	Cardiac arrest following incomplete spontaneous abortion	Diagnosis	ICD-10-CM
O03.86	Cardiac arrest following complete or unspecified spontaneous abortion	Diagnosis	ICD-10-CM
O04.86	Cardiac arrest following (induced) termination of pregnancy	Diagnosis	ICD-10-CM
O07.36	Cardiac arrest following failed attempted termination of pregnancy	Diagnosis	ICD-10-CM
O08.81	Cardiac arrest following an ectopic and molar pregnancy	Diagnosis	ICD-10-CM
O29.11	Cardiac arrest due to anesthesia during pregnancy	Diagnosis	ICD-10-CM
O29.111	Cardiac arrest due to anesthesia during pregnancy, first trimester	Diagnosis	ICD-10-CM
O29.112	Cardiac arrest due to anesthesia during pregnancy, second trimester	Diagnosis	ICD-10-CM
O29.113	Cardiac arrest due to anesthesia during pregnancy, third trimester	Diagnosis	ICD-10-CM
O29.119	Cardiac arrest due to anesthesia during pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
P29.81	Cardiac arrest of newborn	Diagnosis	ICD-10-CM
V12.53	Personal history of sudden cardiac arrest	Diagnosis	ICD-9-CM
Z86.74	Personal history of sudden cardiac arrest	Diagnosis	ICD-10-CM

**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
<b>Has Diagnosis Code that Indicates a Range of Body Mass Index (BMI)</b>			
V85.0	Body Mass Index less than 19, adult	Diagnosis	ICD-9-CM
V85.1	Body Mass Index between 19-24, adult	Diagnosis	ICD-9-CM
V85.2	Body Mass Index between 25-29, adult	Diagnosis	ICD-9-CM
V85.21	Body Mass Index 25.0-25.9, adult	Diagnosis	ICD-9-CM
V85.22	Body Mass Index 26.0-26.9, adult	Diagnosis	ICD-9-CM
V85.23	Body Mass Index 27.0-27.9, adult	Diagnosis	ICD-9-CM
V85.24	Body Mass Index 28.0-28.9, adult	Diagnosis	ICD-9-CM
V85.25	Body Mass Index 29.0-29.9, adult	Diagnosis	ICD-9-CM
V85.3	Body Mass Index between 30-39, adult	Diagnosis	ICD-9-CM
V85.30	Body Mass Index 30.0-30.9, adult	Diagnosis	ICD-9-CM
V85.31	Body Mass Index 31.0-31.9, adult	Diagnosis	ICD-9-CM
V85.32	Body Mass Index 32.0-32.9, adult	Diagnosis	ICD-9-CM
V85.33	Body Mass Index 33.0-33.9, adult	Diagnosis	ICD-9-CM
V85.34	Body Mass Index 34.0-34.9, adult	Diagnosis	ICD-9-CM
V85.35	Body Mass Index 35.0-35.9, adult	Diagnosis	ICD-9-CM
V85.36	Body Mass Index 36.0-36.9, adult	Diagnosis	ICD-9-CM
V85.37	Body Mass Index 37.0-37.9, adult	Diagnosis	ICD-9-CM
V85.38	Body Mass Index 38.0-38.9, adult	Diagnosis	ICD-9-CM
V85.39	Body Mass Index 39.0-39.9, adult	Diagnosis	ICD-9-CM
V85.4	Body Mass Index 40 and over, adult	Diagnosis	ICD-9-CM
V85.41	Body Mass Index 40.0-44.9, adult	Diagnosis	ICD-9-CM
V85.42	Body Mass Index 45.0-49.9, adult	Diagnosis	ICD-9-CM
V85.43	Body Mass Index 50.0-59.9, adult	Diagnosis	ICD-9-CM
V85.44	Body Mass Index 60.0-69.9, adult	Diagnosis	ICD-9-CM
V85.45	Body Mass Index 70 and over, adult	Diagnosis	ICD-9-CM
V85.51	Body Mass Index, pediatric, less than 5th percentile for age	Diagnosis	ICD-9-CM
V85.52	Body Mass Index, pediatric, 5th percentile to less than 85th percentile for age	Diagnosis	ICD-9-CM
V85.53	Body Mass Index, pediatric, 85th percentile to less than 95th percentile for age	Diagnosis	ICD-9-CM
V85.54	Body Mass Index, pediatric, greater than or equal to 95th percentile for age	Diagnosis	ICD-9-CM
Z68.1	Body mass index [BMI] 19.9 or less, adult	Diagnosis	ICD-10-CM
Z68.2	BODY MASS INDEX BMI 20-29 ADULT	Diagnosis	ICD-10-CM
Z68.20	Body mass index [BMI] 20.0-20.9, adult	Diagnosis	ICD-10-CM
Z68.21	Body mass index [BMI] 21.0-21.9, adult	Diagnosis	ICD-10-CM
Z68.22	Body mass index [BMI] 22.0-22.9, adult	Diagnosis	ICD-10-CM
Z68.23	Body mass index [BMI] 23.0-23.9, adult	Diagnosis	ICD-10-CM
Z68.24	Body mass index [BMI] 24.0-24.9, adult	Diagnosis	ICD-10-CM
Z68.25	Body mass index [BMI] 25.0-25.9, adult	Diagnosis	ICD-10-CM
Z68.26	Body mass index [BMI] 26.0-26.9, adult	Diagnosis	ICD-10-CM
Z68.27	Body mass index [BMI] 27.0-27.9, adult	Diagnosis	ICD-10-CM
Z68.28	Body mass index [BMI] 28.0-28.9, adult	Diagnosis	ICD-10-CM
Z68.29	Body mass index [BMI] 29.0-29.9, adult	Diagnosis	ICD-10-CM

**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
Z68.3	BODY MASS INDEX BMI 30-39 ADULT	Diagnosis	ICD-10-CM
Z68.30	Body mass index [BMI] 30.0-30.9, adult	Diagnosis	ICD-10-CM
Z68.31	Body mass index [BMI] 31.0-31.9, adult	Diagnosis	ICD-10-CM
Z68.32	Body mass index [BMI] 32.0-32.9, adult	Diagnosis	ICD-10-CM
Z68.33	Body mass index [BMI] 33.0-33.9, adult	Diagnosis	ICD-10-CM
Z68.34	Body mass index [BMI] 34.0-34.9, adult	Diagnosis	ICD-10-CM
Z68.35	Body mass index [BMI] 35.0-35.9, adult	Diagnosis	ICD-10-CM
Z68.36	Body mass index [BMI] 36.0-36.9, adult	Diagnosis	ICD-10-CM
Z68.37	Body mass index [BMI] 37.0-37.9, adult	Diagnosis	ICD-10-CM
Z68.38	Body mass index [BMI] 38.0-38.9, adult	Diagnosis	ICD-10-CM
Z68.39	Body mass index [BMI] 39.0-39.9, adult	Diagnosis	ICD-10-CM
Z68.4	BODY MASS INDEX BMI 40 OR GREATER ADULT	Diagnosis	ICD-10-CM
Z68.41	Body mass index [BMI] 40.0-44.9, adult	Diagnosis	ICD-10-CM
Z68.42	Body mass index [BMI] 45.0-49.9, adult	Diagnosis	ICD-10-CM
Z68.43	Body mass index [BMI] 50.0-59.9, adult	Diagnosis	ICD-10-CM
Z68.44	Body mass index [BMI] 60.0-69.9, adult	Diagnosis	ICD-10-CM
Z68.45	Body mass index [BMI] 70 or greater, adult	Diagnosis	ICD-10-CM
Z68.51	Body mass index [BMI] pediatric, less than 5th percentile for age	Diagnosis	ICD-10-CM
Z68.52	Body mass index [BMI] pediatric, 5th percentile to less than 85th percentile for age	Diagnosis	ICD-10-CM
Z68.53	Body mass index [BMI] pediatric, 85th percentile to less than 95th percentile for age	Diagnosis	ICD-10-CM
Z68.54	Body mass index [BMI] pediatric, 95th percentile for age to less than 120% of the 95th percentile for age	Diagnosis	ICD-10-CM
Z68.55	BMI PED 120% TO < 140% OF 95TH PERCNTL FOR AGE	Diagnosis	ICD-10-CM
Z68.56	BMI PED >= TO 140% OF THE 95TH PERCNTL FOR AGE	Diagnosis	ICD-10-CM
<b>Diagnosis Codes that Indicates a Range of BMI that Classifies as Obesity</b>			
V85.3	Body Mass Index between 30-39, adult	Diagnosis	ICD-9-CM
V85.30	Body Mass Index 30.0-30.9, adult	Diagnosis	ICD-9-CM
V85.31	Body Mass Index 31.0-31.9, adult	Diagnosis	ICD-9-CM
V85.32	Body Mass Index 32.0-32.9, adult	Diagnosis	ICD-9-CM
V85.33	Body Mass Index 33.0-33.9, adult	Diagnosis	ICD-9-CM
V85.34	Body Mass Index 34.0-34.9, adult	Diagnosis	ICD-9-CM
V85.35	Body Mass Index 35.0-35.9, adult	Diagnosis	ICD-9-CM
V85.36	Body Mass Index 36.0-36.9, adult	Diagnosis	ICD-9-CM
V85.37	Body Mass Index 37.0-37.9, adult	Diagnosis	ICD-9-CM
V85.38	Body Mass Index 38.0-38.9, adult	Diagnosis	ICD-9-CM
V85.39	Body Mass Index 39.0-39.9, adult	Diagnosis	ICD-9-CM
V85.4	Body Mass Index 40 and over, adult	Diagnosis	ICD-9-CM
V85.41	Body Mass Index 40.0-44.9, adult	Diagnosis	ICD-9-CM
V85.42	Body Mass Index 45.0-49.9, adult	Diagnosis	ICD-9-CM
V85.43	Body Mass Index 50.0-59.9, adult	Diagnosis	ICD-9-CM
V85.44	Body Mass Index 60.0-69.9, adult	Diagnosis	ICD-9-CM
V85.45	Body Mass Index 70 and over, adult	Diagnosis	ICD-9-CM

**Appendix B. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
V85.54	Body Mass Index, pediatric, greater than or equal to 95th percentile for age	Diagnosis	ICD-9-CM
Z68.3	BODY MASS INDEX BMI 30-39 ADULT	Diagnosis	ICD-10-CM
Z68.30	Body mass index [BMI] 30.0-30.9, adult	Diagnosis	ICD-10-CM
Z68.31	Body mass index [BMI] 31.0-31.9, adult	Diagnosis	ICD-10-CM
Z68.32	Body mass index [BMI] 32.0-32.9, adult	Diagnosis	ICD-10-CM
Z68.33	Body mass index [BMI] 33.0-33.9, adult	Diagnosis	ICD-10-CM
Z68.34	Body mass index [BMI] 34.0-34.9, adult	Diagnosis	ICD-10-CM
Z68.35	Body mass index [BMI] 35.0-35.9, adult	Diagnosis	ICD-10-CM
Z68.36	Body mass index [BMI] 36.0-36.9, adult	Diagnosis	ICD-10-CM
Z68.37	Body mass index [BMI] 37.0-37.9, adult	Diagnosis	ICD-10-CM
Z68.38	Body mass index [BMI] 38.0-38.9, adult	Diagnosis	ICD-10-CM
Z68.39	Body mass index [BMI] 39.0-39.9, adult	Diagnosis	ICD-10-CM
Z68.4	BODY MASS INDEX BMI 40 OR GREATER ADULT	Diagnosis	ICD-10-CM
Z68.41	Body mass index [BMI] 40.0-44.9, adult	Diagnosis	ICD-10-CM
Z68.42	Body mass index [BMI] 45.0-49.9, adult	Diagnosis	ICD-10-CM
Z68.43	Body mass index [BMI] 50.0-59.9, adult	Diagnosis	ICD-10-CM
Z68.44	Body mass index [BMI] 60.0-69.9, adult	Diagnosis	ICD-10-CM
Z68.45	Body mass index [BMI] 70 or greater, adult	Diagnosis	ICD-10-CM
Z68.54	Body mass index [BMI] pediatric, 95th percentile for age to less than 120% of the 95th percentile for age	Diagnosis	ICD-10-CM
Z68.55	BMI PED 120% TO < 140% OF 95TH PERCNTL FOR AGE	Diagnosis	ICD-10-CM
Z68.56	BMI PED >= TO 140% OF THE 95TH PERCNTL FOR AGE	Diagnosis	ICD-10-CM
<b>Diagnosis Codes that Indicates a Range of BMI that Classifies as Overweight</b>			
V85.2	Body Mass Index between 25-29, adult	Diagnosis	ICD-9-CM
V85.21	Body Mass Index 25.0-25.9, adult	Diagnosis	ICD-9-CM
V85.22	Body Mass Index 26.0-26.9, adult	Diagnosis	ICD-9-CM
V85.23	Body Mass Index 27.0-27.9, adult	Diagnosis	ICD-9-CM
V85.24	Body Mass Index 28.0-28.9, adult	Diagnosis	ICD-9-CM
V85.25	Body Mass Index 29.0-29.9, adult	Diagnosis	ICD-9-CM
V85.53	Body Mass Index, pediatric, 85th percentile to less than 95th percentile for age	Diagnosis	ICD-9-CM
Z68.25	Body mass index [BMI] 25.0-25.9, adult	Diagnosis	ICD-10-CM
Z68.26	Body mass index [BMI] 26.0-26.9, adult	Diagnosis	ICD-10-CM
Z68.27	Body mass index [BMI] 27.0-27.9, adult	Diagnosis	ICD-10-CM
Z68.28	Body mass index [BMI] 28.0-28.9, adult	Diagnosis	ICD-10-CM
Z68.29	Body mass index [BMI] 29.0-29.9, adult	Diagnosis	ICD-10-CM
Z68.53	Body mass index [BMI] pediatric, 85th percentile to less than 95th percentile for age	Diagnosis	ICD-10-CM



**Appendix C. List of Generic and Brand Names of Medical Products Used to Define Exposures in this Request**

Generic Name	Brand Name
<b>Obesity</b>	
amino acids/multivit-minerals/dietary supplement/protein sup	Optifast 70
benzphetamine	
benzphetamine HCl	Didrex
benzphetamine HCl	Regimex
benzphetamine HCl	benzphetamine
carboxymethylcellulose/citric acid	Plenity
carboxymethylcellulose/citric acid	Plenity (Welcome Kit)
diethylpropion HCl	diethylpropion
liraglutide	Saxenda
lorcaserin HCl	Belviq
lorcaserin HCl	Belviq XR
naltrexone HCl/bupropion HCl	Contrave
orlistat	Alli
orlistat	Xenical
orlistat	orlistat
phendimetrazine tartrate	Bontril PDM
phendimetrazine tartrate	Bontril SR
phendimetrazine tartrate	Bontril Slow-Release
phendimetrazine tartrate	phendimetrazine tartrate
phentermine HCl	Adipex-P
phentermine HCl	Lomaira
phentermine HCl	Suprenza
phentermine HCl	phentermine
phentermine HCl/topiramate	Qsymia
resveratrol/chromium pico/green tea/EGCG/caffeine/digestive3	Resveratrol Diet
semaglutide	Wegovy
setmelanotide acetate	Imcivree
sibutramine HCl m-hydrate	Meridia
tirzepatide	Zepbound
<b>Smoking</b>	
nicotine	NTS Step 1
nicotine	Nicoderm CQ
nicotine	Nicotrol
nicotine	Nicotrol NS
nicotine	nicotine

**Appendix C. List of Generic and Brand Names of Medical Products Used to Define Exposures in this Request**

Generic Name	Brand Name
nicotine polacrilex	Commit
nicotine polacrilex	Nicorelief
nicotine polacrilex	Nicorette
nicotine polacrilex	Quit 2
nicotine polacrilex	Quit 4
nicotine polacrilex	Stop Smoking Aid
nicotine polacrilex	Thrive Nicotine
nicotine polacrilex	nicotine (polacrilex)
smoking deterrent filter	One Step At A Time
varenicline tartrate	Chantix
varenicline tartrate	Chantix Continuing Month Box
varenicline tartrate	Chantix Continuing Month Pak
varenicline tartrate	Chantix Starting Month Box
varenicline tartrate	Chantix Starting Month Pak
varenicline tartrate	varenicline



**Appendix D. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), and National Drug Code (NDC) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
<b>Obesity Procedure Codes</b>			
0155T	Laparoscopy, surgical; implantation or replacement of gastric stimulation electrodes, lesser curvature (ie, morbid obesity)	Procedure	CPT-3
0156T	Laparoscopy, surgical; revision or removal of gastric stimulation electrodes, lesser curvature (ie, morbid obesity)	Procedure	CPT-3
0157T	Laparotomy, implantation or replacement of gastric stimulation electrodes, lesser curvature (ie, morbid obesity)	Procedure	CPT-3
0158T	Laparotomy, revision or removal of gastric stimulation electrodes, lesser curvature (ie, morbid obesity)	Procedure	CPT-3
0162T	Electronic analysis and programming, reprogramming of gastric neurostimulator (ie, morbid obesity)	Procedure	CPT-3
0312T	Vagus nerve blocking therapy (morbid obesity); laparoscopic implantation of neurostimulator electrode array, anterior and posterior vagal trunks adjacent to esophagogastric junction (EGJ), with implantation of pulse generator, includes programming	Procedure	CPT-3
0313T	Vagus nerve blocking therapy (morbid obesity); laparoscopic revision or replacement of vagal trunk neurostimulator electrode array, including connection to existing pulse generator	Procedure	CPT-3
0314T	Vagus nerve blocking therapy (morbid obesity); laparoscopic removal of vagal trunk neurostimulator electrode array and pulse generator	Procedure	CPT-3
0315T	Vagus nerve blocking therapy (morbid obesity); removal of pulse generator	Procedure	CPT-3
0316T	Vagus nerve blocking therapy (morbid obesity); replacement of pulse generator	Procedure	CPT-3
0317T	Vagus nerve blocking therapy (morbid obesity); neurostimulator pulse generator electronic analysis, includes reprogramming when performed	Procedure	CPT-3
0813T	Esophagogastroduodenoscopy, flexible, transoral, with volume adjustment of intragastric bariatric balloon	Procedure	CPT-3
0D16079	Bypass Stomach to Duodenum with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D1607A	Bypass Stomach to Jejunum with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D1607B	Bypass Stomach to Ileum with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D1607L	Bypass Stomach to Transverse Colon with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D160J9	Bypass Stomach to Duodenum with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0D160JA	Bypass Stomach to Jejunum with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0D160JB	Bypass Stomach to Ileum with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0D160JL	Bypass Stomach to Transverse Colon with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0D160K9	Bypass Stomach to Duodenum with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D160KA	Bypass Stomach to Jejunum with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D160KB	Bypass Stomach to Ileum with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D160KL	Bypass Stomach to Transverse Colon with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D160Z9	Bypass Stomach to Duodenum, Open Approach	Procedure	ICD-10-PCS
0D160ZA	Bypass Stomach to Jejunum, Open Approach	Procedure	ICD-10-PCS

**Appendix D. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), and National Drug Code (NDC) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
0D160ZB	Bypass Stomach to Ileum, Open Approach	Procedure	ICD-10-PCS
0D160ZL	Bypass Stomach to Transverse Colon, Open Approach	Procedure	ICD-10-PCS
0D16479	Bypass Stomach to Duodenum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1647A	Bypass Stomach to Jejunum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1647B	Bypass Stomach to Ileum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1647L	Bypass Stomach to Transverse Colon with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164J9	Bypass Stomach to Duodenum with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164JA	Bypass Stomach to Jejunum with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164JB	Bypass Stomach to Ileum with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164JL	Bypass Stomach to Transverse Colon with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164K9	Bypass Stomach to Duodenum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164KA	Bypass Stomach to Jejunum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164KB	Bypass Stomach to Ileum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164KL	Bypass Stomach to Transverse Colon with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164Z9	Bypass Stomach to Duodenum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164ZA	Bypass Stomach to Jejunum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164ZB	Bypass Stomach to Ileum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D164ZL	Bypass Stomach to Transverse Colon, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D16879	Bypass Stomach to Duodenum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1687A	Bypass Stomach to Jejunum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1687B	Bypass Stomach to Ileum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1687L	Bypass Stomach to Transverse Colon with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168J9	Bypass Stomach to Duodenum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168JA	Bypass Stomach to Jejunum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168JB	Bypass Stomach to Ileum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS

**Appendix D. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), and National Drug Code (NDC) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
0D168JL	Bypass Stomach to Transverse Colon with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168K9	Bypass Stomach to Duodenum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168KA	Bypass Stomach to Jejunum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168KB	Bypass Stomach to Ileum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168KL	Bypass Stomach to Transverse Colon with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168Z9	Bypass Stomach to Duodenum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168ZA	Bypass Stomach to Jejunum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168ZB	Bypass Stomach to Ileum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168ZL	Bypass Stomach to Transverse Colon, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D19079	Bypass Duodenum to Duodenum with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D1907A	Bypass Duodenum to Jejunum with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D1907B	Bypass Duodenum to Ileum with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D190J9	Bypass Duodenum to Duodenum with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0D190JA	Bypass Duodenum to Jejunum with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0D190JB	Bypass Duodenum to Ileum with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0D190K9	Bypass Duodenum to Duodenum with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D190KA	Bypass Duodenum to Jejunum with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D190KB	Bypass Duodenum to Ileum with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D190Z9	Bypass Duodenum to Duodenum, Open Approach	Procedure	ICD-10-PCS
0D190ZA	Bypass Duodenum to Jejunum, Open Approach	Procedure	ICD-10-PCS
0D190ZB	Bypass Duodenum to Ileum, Open Approach	Procedure	ICD-10-PCS
0D19479	Bypass Duodenum to Duodenum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1947A	Bypass Duodenum to Jejunum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1947B	Bypass Duodenum to Ileum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D194J9	Bypass Duodenum to Duodenum with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D194JA	Bypass Duodenum to Jejunum with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D194JB	Bypass Duodenum to Ileum with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

**Appendix D. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), and National Drug Code (NDC) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
0D194K9	Bypass Duodenum to Duodenum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D194KA	Bypass Duodenum to Jejunum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D194KB	Bypass Duodenum to Ileum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D194Z9	Bypass Duodenum to Duodenum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D194ZA	Bypass Duodenum to Jejunum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D194ZB	Bypass Duodenum to Ileum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D19879	Bypass Duodenum to Duodenum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1987A	Bypass Duodenum to Jejunum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1987B	Bypass Duodenum to Ileum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D198J9	Bypass Duodenum to Duodenum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D198JA	Bypass Duodenum to Jejunum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D198JB	Bypass Duodenum to Ileum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D198K9	Bypass Duodenum to Duodenum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D198KA	Bypass Duodenum to Jejunum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D198KB	Bypass Duodenum to Ileum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D198Z9	Bypass Duodenum to Duodenum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D198ZA	Bypass Duodenum to Jejunum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D198ZB	Bypass Duodenum to Ileum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1A07A	Bypass Jejunum to Jejunum with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D1A07B	Bypass Jejunum to Ileum with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D1A0JA	Bypass Jejunum to Jejunum with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0D1A0JB	Bypass Jejunum to Ileum with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0D1A0KA	Bypass Jejunum to Jejunum with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D1A0KB	Bypass Jejunum to Ileum with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D1A0ZA	Bypass Jejunum to Jejunum, Open Approach	Procedure	ICD-10-PCS
0D1A0ZB	Bypass Jejunum to Ileum, Open Approach	Procedure	ICD-10-PCS
0D1A47A	Bypass Jejunum to Jejunum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1A47B	Bypass Jejunum to Ileum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

**Appendix D. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), and National Drug Code (NDC) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
0D1A4JA	Bypass Jejunum to Jejunum with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1A4JB	Bypass Jejunum to Ileum with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1A4KA	Bypass Jejunum to Jejunum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1A4KB	Bypass Jejunum to Ileum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1A4ZA	Bypass Jejunum to Jejunum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1A4ZB	Bypass Jejunum to Ileum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1A87A	Bypass Jejunum to Jejunum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1A87B	Bypass Jejunum to Ileum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1A8JA	Bypass Jejunum to Jejunum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1A8JB	Bypass Jejunum to Ileum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1A8KA	Bypass Jejunum to Jejunum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1A8KB	Bypass Jejunum to Ileum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1A8ZA	Bypass Jejunum to Jejunum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1A8ZB	Bypass Jejunum to Ileum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1A8ZH	Bypass Jejunum to Cecum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1B07B	Bypass Ileum to Ileum with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D1B0JB	Bypass Ileum to Ileum with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0D1B0KB	Bypass Ileum to Ileum with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D1B0ZB	Bypass Ileum to Ileum, Open Approach	Procedure	ICD-10-PCS
0D1B47B	Bypass Ileum to Ileum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1B4JB	Bypass Ileum to Ileum with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1B4KB	Bypass Ileum to Ileum with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1B4ZB	Bypass Ileum to Ileum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0D1B87B	Bypass Ileum to Ileum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1B8JB	Bypass Ileum to Ileum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1B8KB	Bypass Ileum to Ileum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1B8ZB	Bypass Ileum to Ileum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D1B8ZH	Bypass Ileum to Cecum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS

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Code	Description	Code Category	Code Type
0DB60Z3	Excision of Stomach, Open Approach, Vertical	Procedure	ICD-10-PCS
0DB60ZZ	Excision of Stomach, Open Approach	Procedure	ICD-10-PCS
0DB63Z3	Excision of Stomach, Percutaneous Approach, Vertical	Procedure	ICD-10-PCS
0DB63ZZ	Excision of Stomach, Percutaneous Approach	Procedure	ICD-10-PCS
0DB67Z3	Excision of Stomach, Via Natural or Artificial Opening, Vertical	Procedure	ICD-10-PCS
0DB67ZZ	Excision of Stomach, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0DB68Z3	Excision of Stomach, Via Natural or Artificial Opening Endoscopic, Vertical	Procedure	ICD-10-PCS
0DB80ZZ	Excision of Small Intestine, Open Approach	Procedure	ICD-10-PCS
0DB90ZZ	Excision of Duodenum, Open Approach	Procedure	ICD-10-PCS
0DBB0ZZ	Excision of Ileum, Open Approach	Procedure	ICD-10-PCS
0DQ64ZZ	Repair Stomach, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0DV64CZ	Restriction of Stomach with Extraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0F190Z3	Bypass Common Bile Duct to Duodenum, Open Approach	Procedure	ICD-10-PCS
43.89	Open and other partial gastrectomy	Procedure	ICD-9-CM
43290	Esophagogastroduodenoscopy, flexible, transoral; with deployment of intragastric bariatric balloon	Procedure	CPT-4
43291	Esophagogastroduodenoscopy, flexible, transoral; with removal of intragastric bariatric balloon(s)	Procedure	CPT-4
43644	Laparoscopy, surgical, gastric restrictive procedure; with gastric bypass and Roux-en-Y gastroenterostomy (roux limb 150 cm or less)	Procedure	CPT-4
43645	Laparoscopy, surgical, gastric restrictive procedure; with gastric bypass and small intestine reconstruction to limit absorption	Procedure	CPT-4
43770	Laparoscopy, surgical, gastric restrictive procedure; placement of adjustable gastric restrictive device (eg, gastric band and subcutaneous port components)	Procedure	CPT-4
43771	Laparoscopy, surgical, gastric restrictive procedure; revision of adjustable gastric restrictive device component only	Procedure	CPT-4
43772	Laparoscopy, surgical, gastric restrictive procedure; removal of adjustable gastric restrictive device component only	Procedure	CPT-4
43773	Laparoscopy, surgical, gastric restrictive procedure; removal and replacement of adjustable gastric restrictive device component only	Procedure	CPT-4
43774	Laparoscopy, surgical, gastric restrictive procedure; removal of adjustable gastric restrictive device and subcutaneous port components	Procedure	CPT-4
43775	Laparoscopy, surgical, gastric restrictive procedure; longitudinal gastrectomy (ie, sleeve gastrectomy)	Procedure	CPT-4
43842	Gastric restrictive procedure, without gastric bypass, for morbid obesity; vertical-banded gastroplasty	Procedure	CPT-4
43843	Gastric restrictive procedure, without gastric bypass, for morbid obesity; other than vertical-banded gastroplasty	Procedure	CPT-4
43845	Gastric restrictive procedure with partial gastrectomy, pylorus-preserving duodenoileostomy and ileoileostomy (50 to 100 cm common channel) to limit absorption (biliopancreatic diversion with duodenal switch)	Procedure	CPT-4
43846	Gastric restrictive procedure, with gastric bypass for morbid obesity; with short limb (150 cm or less) Roux-en-Y gastroenterostomy	Procedure	CPT-4



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Code	Description	Code Category	Code Type
43847	Gastric restrictive procedure, with gastric bypass for morbid obesity; with small intestine reconstruction to limit absorption	Procedure	CPT-4
43848	Revision, open, of gastric restrictive procedure for morbid obesity, other than adjustable gastric restrictive device (separate procedure)	Procedure	CPT-4
43886	Gastric restrictive procedure, open; revision of subcutaneous port component only	Procedure	CPT-4
43887	Gastric restrictive procedure, open; removal of subcutaneous port component only	Procedure	CPT-4
43888	Gastric restrictive procedure, open; removal and replacement of subcutaneous port component only	Procedure	CPT-4
44.38	Laparoscopic gastroenterostomy	Procedure	ICD-9-CM
44.39	Other gastroenterostomy without gastrectomy	Procedure	ICD-9-CM
44.68	Laparoscopic gastropasty	Procedure	ICD-9-CM
44.95	Laparoscopic gastric restrictive procedure	Procedure	ICD-9-CM
45.51	Isolation of segment of small intestine	Procedure	ICD-9-CM
45.91	Small-to-small intestinal anastomosis	Procedure	ICD-9-CM
50090582400	semaglutide	Procedure	NDC
72829001001	setmelanotide acetate	Procedure	NDC
797	Anesthesia for intraperitoneal procedures in upper abdomen including laparoscopy; gastric restrictive procedure for morbid obesity	Procedure	CPT-4
G0447	Face-to-face behavioral counseling for obesity, 15 minutes	Procedure	HCPCS
G0473	Face-to-face behavioral counseling for obesity, group (2-10), 30 minutes	Procedure	HCPCS
S2085	Laparoscopy, gastric restrictive procedure, with gastric bypass for morbid obesity, with short limb (less than 100 cm) roux-en-y gastroenterostomy	Procedure	HCPCS
<b>Smoking Procedure Codes</b>			
0002F	Tobacco use, smoking, assessed	Procedure	CPT-2
0003F	Tobacco use, non-smoking, assessed	Procedure	CPT-2
0004F	Tobacco use cessation intervention, counseling	Procedure	CPT-2
1000F	Tobacco use assessed (CAD, CAP, COPD, PV) (DM)	Procedure	CPT-2
1001F	Tobacco use, non-smoking, assessed	Procedure	CPT-2
1032F	Current tobacco smoker or currently exposed to secondhand smoke (Asthma)	Procedure	CPT-2
1034F	Current tobacco smoker (CAD, CAP, COPD, PV) (DM)	Procedure	CPT-2
1035F	Current smokeless tobacco user (eg, chew, snuff) (PV)	Procedure	CPT-2
4000F	Tobacco use cessation intervention, counseling (COPD, CAP, CAD, Asthma) (DM) (PV)	Procedure	CPT-2
4001F	Tobacco use cessation intervention, pharmacologic therapy (COPD, CAD, CAP, PV, Asthma) (DM) (PV)	Procedure	CPT-2
4004F	Patient screened for tobacco use and received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (PV, CAD)	Procedure	CPT-2
83887	Nicotine	Procedure	CPT-4
99406	Smoking and tobacco use cessation counseling visit; intermediate, greater than 3 minutes up to 10 minutes	Procedure	CPT-4
99407	Smoking and tobacco use cessation counseling visit; intensive, greater than 10 minutes	Procedure	CPT-4

**Appendix D. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), and National Drug Code (NDC) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
C9801	Smoking and tobacco cessation counseling visit for the asymptomatic patient; intermediate, greater than 3 minutes, up to 10 minutes	Procedure	HCPCS
C9802	Smoking and tobacco cessation counseling visit for the asymptomatic patient; intensive, greater than 10 minutes	Procedure	HCPCS
D1320	tobacco counseling for the control and prevention of oral disease	Procedure	HCPCS
G0030	Patient screened for tobacco use and received tobacco cessation intervention during the measurement period or in the 6 months prior to the measurement period (counseling, pharmacotherapy, or both), if identified as a tobacco user	Procedure	HCPCS
G0375	Smoking and tobacco use cessation counseling visit; intermediate, greater than 3 minutes up to 10 minutes	Procedure	HCPCS
G0376	Smoking and tobacco use cessation counseling visit; intensive, greater than 10 minutes	Procedure	HCPCS
G0436	Smoking and tobacco cessation counseling visit for the asymptomatic patient; intermediate, greater than 3 minutes, up to 10 minutes	Procedure	HCPCS
G0437	Smoking and tobacco cessation counseling visit for the asymptomatic patient; intensive, greater than 10 minutes	Procedure	HCPCS
G6055	Assay of nicotine	Procedure	HCPCS
G8093	Newly diagnosed chronic obstructive pulmonary disease (COPD) patient documented to have received smoking cessation intervention, within 3 months of diagnosis	Procedure	HCPCS
G8094	Newly diagnosed chronic obstructive pulmonary disease (COPD) patient not documented to have received smoking cessation intervention, within 3 months of diagnosis	Procedure	HCPCS
G8402	Tobacco (smoke) use cessation intervention, counseling	Procedure	HCPCS
G8403	Tobacco (smoke) use cessation intervention not counseled	Procedure	HCPCS
G8453	Tobacco use cessation intervention, counseling	Procedure	HCPCS
G8454	Tobacco use cessation intervention not counseled, reason not specified	Procedure	HCPCS
G8455	Current tobacco smoker	Procedure	HCPCS
G8456	Current smokeless tobacco user	Procedure	HCPCS
G8457	Current tobacco nonuser	Procedure	HCPCS
G8686	Currently a tobacco smoker or current exposure to secondhand smoke	Procedure	HCPCS
G8688	Currently a smokeless tobacco user (e.g., chew, snuff) and no exposure to secondhand smoke	Procedure	HCPCS
G8689	Tobacco use not assessed, reason not otherwise specified	Procedure	HCPCS
G8690	Current tobacco smoker or current exposure to secondhand smoke	Procedure	HCPCS
G8692	Current smokeless tobacco user (e.g., chew, snuff) and no exposure to secondhand smoke	Procedure	HCPCS
G8693	Tobacco use not assessed, reason not specified	Procedure	HCPCS
G8751	Smoking status and exposure to second hand smoke in the home not assessed, reason not given	Procedure	HCPCS
G9016	Smoking cessation counseling, individual, in the absence of or in addition to any other evaluation and management service, per session (6-10 minutes) [demo project code only]	Procedure	HCPCS
G9275	Documentation that patient is a current nontobacco user	Procedure	HCPCS



**Appendix D. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), and National Drug Code (NDC) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
G9276	Documentation that patient is a current tobacco user	Procedure	HCPCS
G9458	Patient documented as tobacco user and received tobacco cessation intervention (must include at least one of the following: advice given to quit smoking or tobacco use, counseling on the benefits of quitting smoking or tobacco use, assistance with or referral to external smoking or tobacco cessation support programs, or current enrollment in smoking or tobacco use cessation program) if identified as a tobacco user	Procedure	HCPCS
G9460	Tobacco assessment or tobacco cessation intervention not performed, reason not given	Procedure	HCPCS
G9497	Received instruction from the anesthesiologist or proxy prior to the day of surgery to abstain from smoking on the day of surgery	Procedure	HCPCS
G9644	Patients who abstained from smoking prior to anesthesia on the day of surgery or procedure	Procedure	HCPCS
G9645	Patients who did not abstain from smoking prior to anesthesia on the day of surgery or procedure	Procedure	HCPCS
G9792	Most recent tobacco status is not tobacco free	Procedure	HCPCS
G9902	Patient screened for tobacco use and identified as a tobacco user	Procedure	HCPCS
G9906	Patient identified as a tobacco user received tobacco cessation intervention during the measurement period or in the 6 months prior to the measurement period (counseling and/or pharmacotherapy)	Procedure	HCPCS
G9907	Documentation of medical reason(s) for not providing tobacco cessation intervention on the date of the encounter or within the previous 12 months (e.g., limited life expectancy, other medical reason)	Procedure	HCPCS
G9908	Patient identified as tobacco user did not receive tobacco cessation intervention during the measurement period or in the 6 months prior to the measurement period (counseling and/or pharmacotherapy)	Procedure	HCPCS
G9909	Documentation of medical reason(s) for not providing tobacco cessation intervention on the date of the encounter or within the previous 12 months if identified as a tobacco user (e.g., limited life expectancy, other medical reason)	Procedure	HCPCS
HZ80	Medication Management / Nicotine Replacement	Procedure	ICD-10-PCS
HZ80ZZZ	Medication Management for Substance Abuse Treatment, Nicotine Replacement	Procedure	ICD-10-PCS
HZ90	Pharmacotherapy / Nicotine Replacement	Procedure	ICD-10-PCS
HZ90ZZZ	Pharmacotherapy for Substance Abuse Treatment, Nicotine Replacement	Procedure	ICD-10-PCS
M1018	Patients with an active diagnosis or history of cancer (except basal cell and squamous cell skin carcinoma), patients who are heavy tobacco smokers, lung cancer screening patients	Procedure	HCPCS
M1283	Patient screened for tobacco use and identified as a tobacco user	Procedure	HCPCS
M1289	Patient identified as tobacco user did not receive tobacco cessation intervention during the measurement period or in the 6 months prior to the measurement period (counseling and/or pharmacotherapy)	Procedure	HCPCS
M1301	Patient identified as a tobacco user received tobacco cessation intervention during the measurement period or in the 6 months prior to the measurement period (counseling and/or pharmacotherapy)	Procedure	HCPCS

**Appendix D. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), and National Drug Code (NDC) Codes Used to Define Exposures in this Request**

Code	Description	Code Category	Code Type
M1310	Patient screened for tobacco use and received tobacco cessation intervention during the measurement period or in the 6 months prior to the measurement period (counseling, pharmacotherapy, or both), if identified as a tobacco user	Procedure	HCPCS
S4990	Nicotine patches, legend	Procedure	HCPCS
S4991	Nicotine patches, nonlegend	Procedure	HCPCS
S4995	Smoking cessation gum	Procedure	HCPCS
S9075	Smoking cessation treatment	Procedure	HCPCS
S9453	Smoking cessation classes, nonphysician provider, per session	Procedure	HCPCS

# Appendix E. Specifications Defining Parameters for this Request for Non-Race Cohorts

An execution of the Cohort Identification and Descriptive Analysis (CIDA) tool version 14.0.1 was requested to calculate rates of confounding variables found in administrative claims data over time in the Sentinel Distributed Database (SDD).

**Query Period:** January 1, 2010 - December 31, 2023  
**Coverage Requirement:** Medical & Drug Coverage  
**Pre-Index Enrollment Requirement:** 365 Days  
**Post-Index Requirement:** 0 Days  
**Enrollment Gap:** 45 Days  
**Age Groups:** 0-17, 18-43, 44-64, and 65+ [18-43, 44-64, and 65+ for has\_vitals\_BMI, overweight\_vitals\_BMI, and obesity\_vitals\_bmi cohorts]  
**Stratifications:** Calendar year, Age group\*Calendar year, Sex\*Calendar year  
**Censor Output Categorization:** Range of follow-up time specified  
**Restrictions:** M/F sex  
**Distribution of Index-Defining Codes:** None  
**Envelope Macro:** Reclassify  
**Freeze Data:** No

## Exposure/Event

Scenario	Group	Index Exposure/ Event	Cohort Definition	Washout Period	Care Setting	Principal Diagnosis Position	Create Baseline Table?	End At-Risk Period at Evidence of	Minimum Post- Index Required Days	Age Restriction
1	obesity_365	Incident obesity	All valid index dates	365	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		
2	obesity_prev	Prevalent obesity	All valid index dates	0	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		
3	overweight_365	Incident overweight	All valid index dates	365	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		
4	overweight_prev	Prevalent overweight	All valid index dates	0	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		

Appendix E. Specifications Defining Parameters for this Request for Non-Race Cohorts										
Scenario	Group	Index Exposure/ Event	Exposure/Event							
			Cohort Definition	Washout Period	Care Setting	Principal Diagnosis Position	Create Baseline Table?	End At-Risk Period at Evidence of	Minimum Post-Index Required Days	Age Restriction
5	smoking_365	Incident smoking	All valid index dates	365	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		
6	smoking_prev	Prevalent smoking	All valid index dates	0	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		
7	alcohol_365	Incident alcohol abuse or dependence	All valid index dates	365	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		
8	alcohol_prev	Prevalent alcohol abuse or dependence	All valid index dates	0	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		
9	drug_365	Incident drug abuse or dependence	All valid index dates	365	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		
10	drug_prev	Prevalent drug abuse or dependence	All valid index dates	0	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		
11	cabg_365	Incident history of CABG or PTCA	All valid index dates	365	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		
12	cabg_prev	Prevalent history of CABG or PTCA	All valid index dates	0	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		
13	cardiac_365	Incident history of sudden cardiac arrest	All valid index dates	365	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		
14	cardiac_prev	Prevalent history of sudden cardiac arrest	All valid index dates	0	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		

Appendix E. Specifications Defining Parameters for this Request for Non-Race Cohorts										
Scenario	Group	Index Exposure/ Event	Exposure/Event					End At-Risk Period at Evidence of	Minimum Post-Index Required Days	Age Restriction
			Cohort Definition	Washout Period	Care Setting	Principal Diagnosis Position	Create Baseline Table?			
17	has_diag_bmi	Has diagnosis code that indicates a range of BMI	All valid index dates	0	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		
18	obesity_diag_bmi	Has diagnosis code that indicates a range of BMI that classifies as obesity	All valid index dates	0	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		
19	overweight_diag_bmi	Has diagnosis code that indicates a range of BMI that classifies as overweight	All valid index dates	0	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		
20	has_height	Has non-missing value for height	All valid index dates	0	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		
21	has_weight	Has non-missing value for weight	All valid index dates	0	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		
22	has_vital_bmi	Has non-missing values for both height and weight within +/- 183 days	All valid index dates	0	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date	183	>=18 years
23	obesity_vital_bmi	Has BMI calculated from vitals is in the obesity range	All valid index dates	0	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date	183	>=18 years
24	overweight_vital_bmi	Has BMI calculated from vitals is in the overweight range	All valid index dates	0	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date	183	>=18 years

Appendix E. Specifications Defining Parameters for this Request for Non-Race Cohorts										
Exposure/Event										
Scenario	Group	Index Exposure/ Event	Cohort Definition	Washout Period	Care Setting	Principal Diagnosis Position	Create Baseline Table?	End At-Risk Period at Evidence of	Minimum Post-Index Required Days	Age Restriction
25	has_dia_bp	Has non-missing value for diastolic blood pressure	All valid index dates	0	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		
26	has_sys_bp	Has non-missing value for systolic blood pressure	All valid index dates	0	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		
#	Group name used to define scenario in input files	Name of cohort specified	01 02 T1COHORT DEF	Days specified T1WASHP ER	IP IS ED AV OA Blank	*Any *Principal *Secondary *Unknown	Y N	*Death *DP end date *Query end date *Occurrence of an exposure or event		Y N
<p><b>Create Baseline Table, Age Restriction:</b> Y: Baseline table will be produced for corresponding cohort grp. N: Baseline table will not be produced for corresponding cohort group. (<i>CREATEBASELINE</i>)</p> <p><b>Principal Diagnosis Position</b> is only applicable for Inpatient and Institutional stays. (<i>CARESETTINGPRINCIPAL</i>)</p> <p><b>End At-Risk period at Evidence of:</b> Death (<i>CENSOR_DTH</i>), DP end date (QRP will automatically censor for this), Query end date (<i>INEDENDATE</i> and/or <i>INDENDOPTIONS</i>), Occurrence of an exposure or event (<i>INDEXCRITERIA</i> and/or <i>FUPCRITERIA</i>).</p> <p><b>Cohort Definition:</b> 01: Cohort includes only the first valid index date per individual during the query period. 02: Cohort includes all valid index dates per individual during the query period.</p> <p><b>Care Setting:</b> IP: Inpatient hospitals stays, IS: non-acute institutional stays, ED: emergency department encounters, AV: ambulatory visits, OA: other ambulatory visits, Blank: any caresetting. (<i>CARESETTINGPRINCIPAL</i>)</p> <p>International Classification of Diseases, Ninth Revision (ICD-9), International Classification of Diseases, Tenth Revision (ICD-10), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology (CPT) codes are provided by Optum360.</p> <p>National Drug Codes (NDC) are checked against First Data Bank's FDB MedKnowledge®</p>										

# Appendix F. Specifications Defining Parameters for this Request for Race Cohorts

An execution of the Cohort Identification and Descriptive Analysis (CIDA) tool version 14.0.1 was requested to calculate rates of confounding variables found in administrative claims data over time in the Sentinel Distributed Database (SDD).

**Query Period:** January 1, 2020 - December 31, 2021  
**Coverage Requirement:** Medical & Drug Coverage  
**Pre-Index Enrollment Requirement:** 365 Days  
**Post-Index Requirement:** 0 Days  
**Enrollment Gap:** 45 Days  
**Age Groups:** 0-17, 18-43, 44-64, and 65+  
**Stratifications:** Race\*Age group and Race\*Sex  
**Censor Output Categorization:** Range of follow-up time specified  
**Restrictions:** M/F sex  
**Distribution of Index-Defining Codes:** None  
**Envelope Macro:** Reclassify  
**Freeze Data:** No

## Exposure/Event

Scenario	Group	Index Exposure/ Event	Cohort Definition	Washout Period	Care Setting	Principal Diagnosis Position	Create Baseline Table?	End At-Risk Period at Evidence of	Minimum Post- Index Required Days	Age Restriction
15	has_reported_race	Has non-missing value for reported race	First valid index date	0	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		
16	has_imputed_race	Has non-missing value for imputed race	First valid index date	0	Any care setting	Any	Y	Death; Data Partner End Date; Query End Date		

International Classification of Diseases, Ninth Revision (ICD-9), International Classification of Diseases, Tenth Revision (ICD-10), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology (CPT) codes are provided by Optum360.

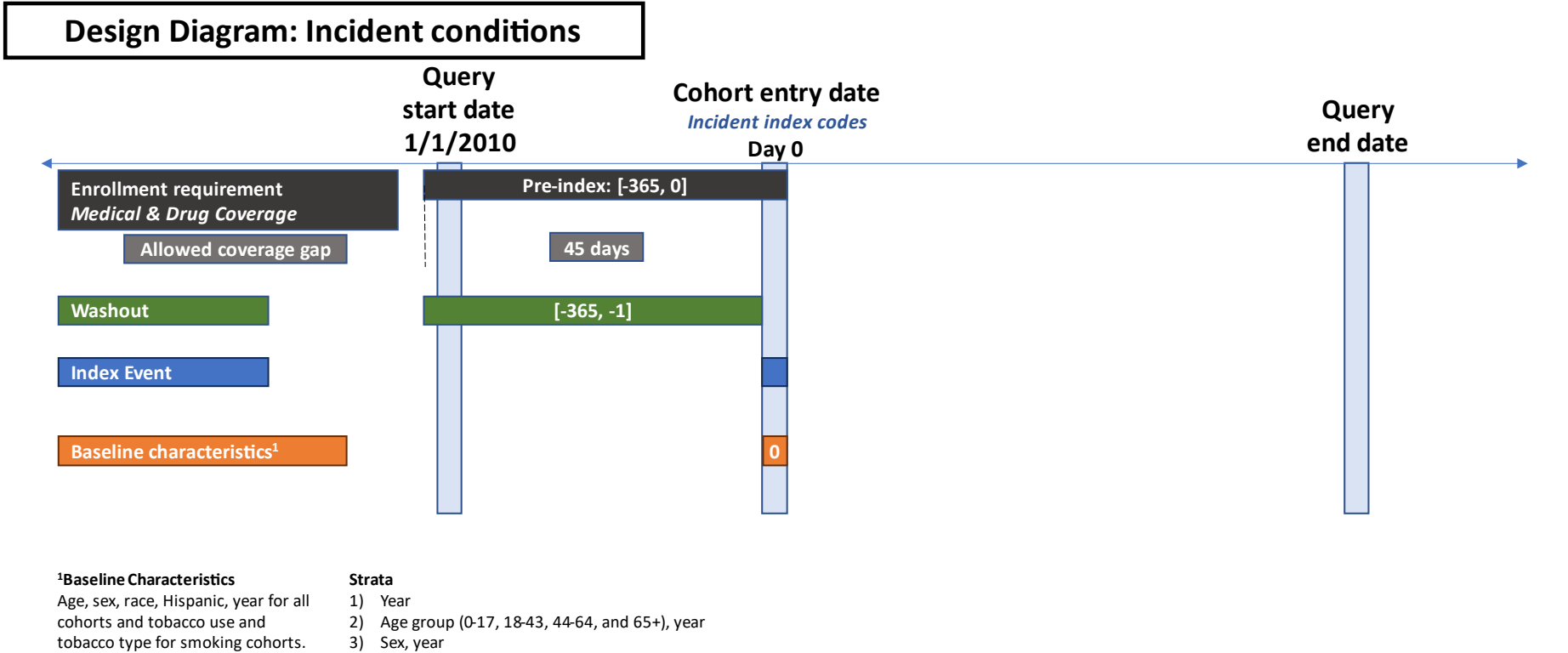
National Drug Codes (NDC) are checked against First Data Bank's FDB MedKnowledge®

Appendix G. Specifications Defining Parameters for this Request for Smoking Covariates								
Baseline Characteristics (All run 01 only)								
Covariate Name	Covariate Number	Code Category	Covariate Evaluation Period Start	Covariate Evaluation Period End	Number of Instances the Covariate Should be Found in Evaluation Period	Vitals Type	Vital Values	Applicable Group(s)
Name of covariate specified (STUDYNAME)	Numeric indicator for each covariate (COVARNUM)	<b>RX:</b> Drug code <b>DX:</b> Diagnosis code <b>PX:</b> Procedure code <b>CC:</b> Combination of multiple COVARNUM values to define a covariate <b>EN:</b> Encounter <b>LB:</b> Lab Code <b>VT:</b> Vitals (CODECAT)	Numeric specified (COVFROM)	Numeric specified (COVTO)	Numeric specified (CODEDAYS)	<b>TU:</b> Tobacco Usage <b>TT:</b> Tobacco Type <b>Blank:</b> if CODECAT is not VT (LABSATETYPE)	<b>X:</b> equal to X <b>&lt;=X:</b> less than or equal to X <b>&lt;X:</b> less than X <b>&gt;=X:</b> greater than or equal to X <b>&gt;X:</b> greater than X <b>~X:</b> not equal to X <b>X:Y:</b> between X and Y <b>Blank:</b> if CODECAT is not VT	
Current user	1	VT	-365	0	1	TU	1	smoking_365, smoking_prev
Never	2	VT	-365	0	1	TU	2	smoking_365, smoking_prev
Quit/former user	3	VT	-365	0	1	TU	3	smoking_365, smoking_prev
Passive	4	VT	-365	0	1	TU	4	smoking_365, smoking_prev



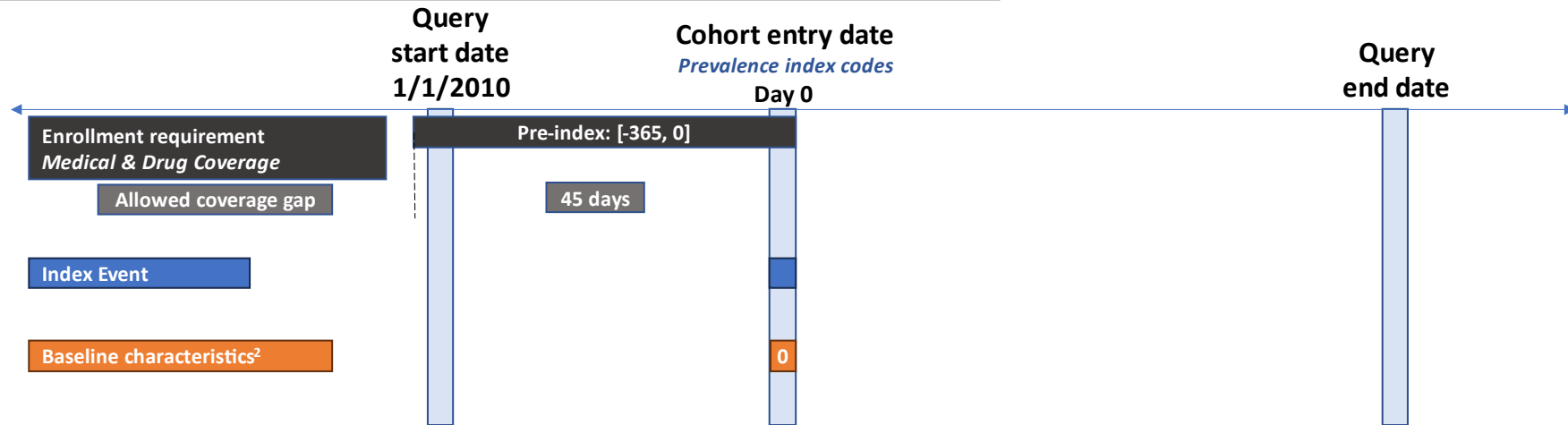
Appendix G. Specifications Defining Parameters for this Request for Smoking Covariates								
Baseline Characteristics (All run 01 only)								
Covariate Name	Covariate Number	Code Category	Covariate Evaluation Period Start	Covariate Evaluation Period End	Number of Instances the Covariate Should be Found in Evaluation Period	Vitals Type	Vital Values	Applicable Group(s)
Environmental exposure	5	VT	-365	0	1	TU	5	smoking_365, smoking_prev
Not asked	6	VT	-365	0	1	TU	6	smoking_365, smoking_prev
Conflicting	7	VT	-365	0	1	TU	7	smoking_365, smoking_prev
Cigarettes only	8	VT	-365	0	1	TT	1	smoking_365, smoking_prev
Other tobacco only	9	VT	-365	0	1	TT	2	smoking_365, smoking_prev
Cigarettes and other tobacco	10	VT	-365	0	1	TT	3	smoking_365, smoking_prev
None	11	VT	-365	0	1	TT	4	smoking_365, smoking_prev

# Appendix H.1 Design Diagram of Cohort Entry Requirements for Incident Condition Cohorts



## Appendix H.2 Design Diagram of Cohort Entry Requirements for Prevalent Condition and Other Specified Cohorts

### Design Diagram: Prevalent Condition and Vitals Data Cohorts<sup>1</sup>



<sup>1</sup>The above diagram applies to the prevalent condition cohorts as well as the has\_diag\_bmi, obesity\_diag\_bmi, overweight\_diag\_bmi, has\_height, has\_weight, has\_dia\_bp, and has\_sys\_bp cohorts.

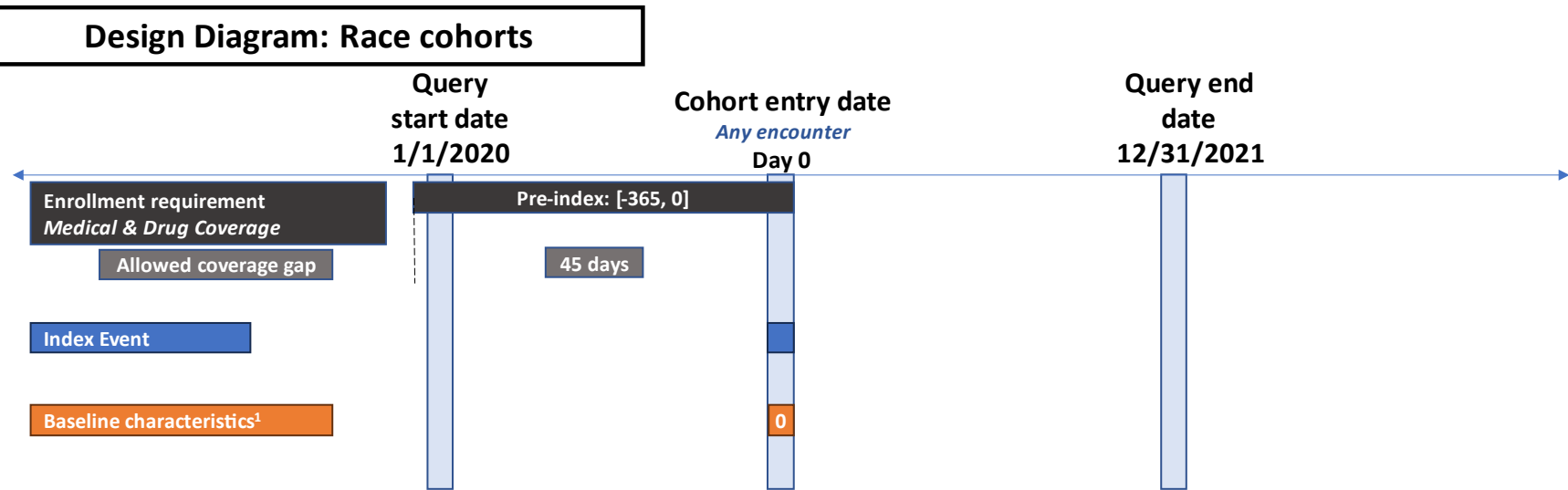
#### <sup>2</sup>Baseline Characteristics

Age, sex, race, Hispanic, year for all cohorts and tobacco use and tobacco type for smoking cohorts.

#### Strata

- 1) Year
- 2) Age group (0-17, 18-43, 44-64, and 65+), year
- 3) Sex, year

## Appendix H.3 Design Diagram of Cohort Entry Requirements for Race Cohorts



Has Reported Race and Has Imputed Race cohorts.

<sup>1</sup>Baseline Characteristics  
Age, sex, race, Hispanic, Year

**Strata**  
1) Race, age group (0-17, 18-43, 44-64, and 65+)  
2) Race, sex