**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 two out of two and includes data from seven Sentinel Data Partners that contribute vitals data.

**Study Design:** This request was designed to describe cohorts with prevalent and incident confounding conditions; diagnosis codes for a BMI range; height and weight measurements in the vitals data; calculatable body mass index (BMI) using vitals data; records of blood pressure in the vitals data; 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 for all occurrences of non-missing values for height, weight, systolic blood pressure (BP), and diastolic BP were identified using vitals data.
**Group Four:** Separate cohorts of all occurrences of calculatable BMI, calculated BMI in the obesity range, and calculated BMI in the overweight range were identified using vitals data. BMI was defined as calculatable if a valid height was recorded within +/-183 days of a valid weight measurement. The height record closest to the date of the weight measurement was used for calculating BMI. Height and weight measurements in the following range were not considered valid: height < 48 inches and height > 84inches; weight <50 pounds and weight > 700 pounds.
**Group Five:** 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 Groups Four and Five, the dates of all qualifying occurrences of cohort-defining codes in claims or measurements in vitals data served as index dates. For Group Four (calculatable and calculated BMI cohorts), the dates of all valid weight measurements with a valid height measurement within +/-183 days served as the index dates. For Group Five (race cohorts), the dates of the earliest encounter between January 1, 2020 and December 31, 2021 served as the index dates.

**Cohort Eligibility Criteria:**

All cohorts except group four: 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.

**Group Four Cohorts**: Individuals were required to be continuously enrolled in plans with medical and drug coverage for at least 365 days prior through 183 days after the index dates. Gaps in coverage of up to 45 days were allowed during this period. The following age groups were included: 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. Additionally, for the incident and prevalent smoking cohorts, the following characteristics were assessed in the 365 days leading up to each valid index date: tobacco use (current user, never user, quit/former user, passive exposure, environmental exposure, not asked, and conflicting) and tobacco type (cigarettes only, other tobacco only, cigarettes and other tobacco, and none).

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@sentinelsystem.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.sentinelsystem.org/projects/SENTINEL/repos/sentinel-routine-querying-tool-documentation/browse).

**Table of Contents**

# 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**

| Patient Characteristics[1] | Incident Obesity | | Prevalent Obesity | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| Unique patients | 1,241,553 | 100.0% | 1,348,804 | 100.0% |
| Episodes | 2,269,697 | 100.0% | 8,293,162 | 100.0% |
| **Demographic Characteristics** | **Mean** | **Standard Deviation** | **Mean** | **Standard Deviation** |
| Age (years) | 48.8 | 19.4 | 52.9 | 17.9 |
| Age | **Number** | **Percent** | **Number** | **Percent** |
| 0-17 years | 237,444 | 10.5% | 417,655 | 5.0% |
| 18-43 years | 596,530 | 26.3% | 2,062,442 | 24.9% |
| 44-64 years | 933,899 | 41.1% | 3,450,110 | 41.6% |
| ≥ 65 years | 501,824 | 22.1% | 2,362,955 | 28.5% |
| Sex | | | | |
| Female | 718,991 | 57.9% | 789,603 | 58.5% |
| Male | 522,562 | 42.1% | 559,201 | 41.5% |
| Race[2] | | | | |
| Race[2] | 6,840 | 0.6% | 7,550 | 0.6% |
| Asian | 47,161 | 3.8% | 49,840 | 3.7% |
| Black or African American | 158,846 | 12.8% | 174,492 | 12.9% |
| Multi-racial | 59,780 | 4.8% | 63,962 | 4.7% |
| Native Hawaiian or Other Pacific Islander | 18,763 | 1.5% | 19,940 | 1.5% |
| Unknown | 231,280 | 18.6% | 256,270 | 19.0% |
| White | 718,883 | 57.9% | 776,750 | 57.6% |
| Hispanic Origin[2] | | | | |
| Yes | 120,596 | 9.7% | 131,050 | 9.7% |
| No | 792,521 | 63.8% | 853,579 | 63.3% |
| Unknown | 328,436 | 26.5% | 364,175 | 27.0% |
| Year | | | | |
| 2010 | 104,140 | 4.6% | 320,147 | 3.9% |
| 2011 | 112,343 | 4.9% | 335,434 | 4.0% |
| 2012 | 121,867 | 5.4% | 376,465 | 4.5% |
| 2013 | 134,487 | 5.9% | 415,164 | 5.0% |
| 2014 | 139,075 | 6.1% | 473,873 | 5.7% |
| 2015 | 149,026 | 6.6% | 536,660 | 6.5% |
| 2016 | 158,200 | 7.0% | 578,089 | 7.0% |
| 2017 | 178,586 | 7.9% | 655,504 | 7.9% |
| 2018 | 199,365 | 8.8% | 739,643 | 8.9% |
| 2019 | 200,658 | 8.8% | 765,238 | 9.2% |
| 2020 | 184,419 | 8.1% | 715,649 | 8.6% |

**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[1] | Number | Percent | Number | Percent |
| 2021 | 222,371 | 9.8% | 856,851 | 10.3% |
| 2022 | 194,077 | 8.6% | 785,779 | 9.5% |
| 2023 | 171,083 | 7.5% | 738,666 | 8.9% |

[1]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.

[2]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**

| Patient Characteristics[1] | Incident Overweight | | Prevalent Overweight | |
|---|---|---|---|---|
| | **Number** | **Percent** | **Number** | **Percent** |
| Unique patients | 450,881 | 100.0% | 462,354 | 100.0% |
| Episodes | 586,628 | 100.0% | 902,326 | 100.0% |
| **Demographic Characteristics** | **Mean** | **Standard Deviation** | **Mean** | **Standard Deviation** |
| Age (years) | 41.1 | 24 | 43.9 | 23.8 |
| Age | **Number** | **Percent** | **Number** | **Percent** |
| 0-17 years | 181,174 | 30.9% | 232,422 | 25.8% |
| 18-43 years | 110,330 | 18.8% | 172,115 | 19.1% |
| 44-64 years | 177,966 | 30.3% | 294,555 | 32.6% |
| ≥ 65 years | 117,158 | 20.0% | 203,234 | 22.5% |
| Sex | | | | |
| Female | 248,687 | 55.2% | 255,345 | 55.2% |
| Male | 202,194 | 44.8% | 207,009 | 44.8% |
| Race[2] | | | | |
| American Indian or Alaska Native | 1,926 | 0.4% | 1,975 | 0.4% |
| Asian | 30,284 | 6.7% | 30,966 | 6.7% |
| Black or African American | 51,125 | 11.3% | 52,347 | 11.3% |
| Multi-racial | 24,638 | 5.5% | 25,137 | 5.4% |
| Native Hawaiian or Other Pacific Islander | 5,164 | 1.1% | 5,256 | 1.1% |
| Unknown | 90,240 | 20.0% | 94,014 | 20.3% |
| White | 247,504 | 54.9% | 252,659 | 54.6% |
| Hispanic Origin[2] | | | | |
| Yes | 45,787 | 10.2% | 47,109 | 10.2% |
| No | 287,202 | 63.7% | 293,082 | 63.4% |
| Unknown | 117,892 | 26.1% | 122,163 | 26.4% |
| Year | | | | |
| 2010 | 25,490 | 4.3% | 39,556 | 4.4% |
| 2011 | 29,216 | 5.0% | 41,888 | 4.6% |
| 2012 | 31,204 | 5.3% | 45,260 | 5.0% |
| 2013 | 32,128 | 5.5% | 45,947 | 5.1% |
| 2014 | 34,033 | 5.8% | 49,378 | 5.5% |
| 2015 | 38,388 | 6.5% | 56,321 | 6.2% |
| 2016 | 40,848 | 7.0% | 61,627 | 6.8% |
| 2017 | 50,787 | 8.7% | 80,029 | 8.9% |
| 2018 | 58,020 | 9.9% | 92,660 | 10.3% |
| 2019 | 58,195 | 9.9% | 93,476 | 10.4% |
| 2020 | 45,369 | 7.7% | 70,347 | 7.8% |

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

| Patient Characteristics[1] | Incident Overweight | | Prevalent Overweight | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| 2021 | 56,545 | 9.6% | 85,333 | 9.5% |
| 2022 | 45,866 | 7.8% | 72,673 | 8.1% |
| 2023 | 40,539 | 6.9% | 67,831 | 7.5% |

[1]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.

[2]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**

| Patient Characteristics[1] | Incident Smoking | | Prevalent Smoking | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| Unique patients | 1,105,699 | 100.0% | 1,220,664 | 100.0% |
| Episodes | 1,910,008 | 100.0% | 7,028,690 | 100.0% |
| **Demographic Characteristics** | **Mean** | **Standard Deviation** | **Mean** | **Standard Deviation** |
| Age (years) | 55.0 | 18.0 | 57.2 | 17.0 |
| Age | **Number** | **Percent** | **Number** | **Percent** |
| 0-17 years | 27,441 | 1.4% | 56,075 | 0.8% |
| 18-43 years | 110,330 | 26.7% | 1,563,457 | 22.2% |
| 44-64 years | 759,909 | 39.8% | 2,958,970 | 42.1% |
| ≥ 65 years | 612,777 | 32.1% | 2,450,188 | 34.9% |
| Sex | | | | |
| Female | 519,614 | 47.0% | 580,436 | 47.6% |
| Male | 586,085 | 53.0% | 640,228 | 52.4% |
| Race[2] | | | | |
| American Indian or Alaska Native | 6,289 | 0.6% | 7,314 | 0.6% |
| Asian | 51,104 | 4.6% | 54,942 | 4.5% |
| Black or African American | 90,621 | 8.2% | 101,755 | 8.3% |
| Multi-racial | 49,638 | 4.5% | 55,174 | 4.5% |
| Native Hawaiian or Other Pacific Islander | 14,548 | 1.3% | 16,023 | 1.3% |
| Unknown | 179,330 | 16.2% | 200,879 | 16.5% |
| White | 714,169 | 64.6% | 784,577 | 64.3% |
| Hispanic Origin[2] | | | | |
| Yes | 59,731 | 5.4% | 65,106 | 5.3% |
| No | 765,167 | 69.2% | 838,462 | 68.7% |
| Unknown | 280,801 | 25.4% | 317,096 | 26.0% |
| Year | | | | |
| 2010 | 104,458 | 5.5% | 317,682 | 4.5% |
| 2011 | 109,945 | 5.8% | 339,464 | 4.8% |
| 2012 | 114,492 | 6.0% | 365,430 | 5.2% |
| 2013 | 118,283 | 6.2% | 382,337 | 5.4% |
| 2014 | 124,026 | 6.5% | 406,632 | 5.8% |
| 2015 | 134,097 | 7.0% | 461,367 | 6.6% |
| 2016 | 144,429 | 7.6% | 518,303 | 7.4% |
| 2017 | 156,475 | 8.2% | 585,429 | 8.3% |
| 2018 | 166,515 | 8.7% | 666,339 | 9.5% |
| 2019 | 168,585 | 8.8% | 698,271 | 9.9% |
| 2020 | 139,260 | 7.3% | 587,028 | 8.4% |

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

| Patient Characteristics[1] | Incident Smoking | | Prevalent Smoking | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| 2021 | 159,056 | 8.3% | 632,253 | 9.0% |
| 2022 | 143,668 | 7.5% | 574,969 | 8.2% |
| 2023 | 126,719 | 6.6% | 493,186 | 7.0% |
| Tobacco Use[3] | | | | |
| Current user | 528,212 | 27.7% | 2,952,833 | 42.0% |
| Never | 120,990 | 6.3% | 258,939 | 3.7% |
| Quit/former user | 726,771 | 38.1% | 2,482,803 | 35.3% |
| Passive | 23,419 | 1.2% | 79,981 | 1.1% |
| Environmental exposure | 0 | 0.0% | 0 | 0.0% |
| Not asked | 4,101 | 0.2% | 13,426 | 0.2% |
| Conflicting[4] | 106,111 | 5.6% | 390,727 | 5.6% |
| Tobacco Type[3] | | | | |
| Cigarettes only | 857,568 | 44.9% | 3,944,580 | 56.1% |
| Other tobacco only | 62,637 | 3.3% | 181,809 | 2.6% |
| Cigarettes and other tobacco | 58,001 | 3.0% | 267,689 | 3.8% |
| None | 460,125 | 24.1% | 1,230,218 | 17.5% |

[1]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.

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

[3]Categories under tobacco use and tobacco type do not add up to the total number of episodes because these fields are not populated for all enrollees.

[4]The "conflicting" value denotes tobacco information from multiple sources in the EHR that disagree. Smoking and tobacco type may be recorded at multiple places in the EHR data and there may be disagreement between these different records.

**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**

| Patient Characteristics[1] | Incident Alcohol Abuse or Dependence | | Prevalent Alcohol Abuse or Dependence | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| Unique patients | 267,931 | 100.0% | 297,316 | 100.0% |
| Episodes | 365,331 | 100.0% | 2,936,844 | 100.0% |
| **Demographic Characteristics** | **Mean** | **Standard Deviation** | **Mean** | **Standard Deviation** |
| Age (years) | 48.5 | 17.8 | 47.6 | 16.1 |
| Age | **Number** | **Percent** | **Number** | **Percent** |
| 0-17 years | 10,878 | 3.0% | 61,995 | 2.1% |
| 18-43 years | 137,226 | 37.6% | 1,171,343 | 39.9% |
| 44-64 years | 143,987 | 39.4% | 1,269,048 | 43.2% |
| ≥ 65 years | 73,240 | 20.0% | 434,458 | 14.8% |
| Sex | | | | |
| Female | 104,187 | 38.9% | 115,452 | 38.8% |
| Male | 163,744 | 61.1% | 181,864 | 61.2% |
| Race[2] | | | | |
| American Indian or Alaska Native | 2,089 | 0.8% | 2,465 | 0.8% |
| Asian | 7,346 | 2.7% | 7,820 | 2.6% |
| Black or African American | 21,417 | 8.0% | 23,512 | 7.9% |
| Multi-racial | 11,565 | 4.3% | 12,948 | 4.4% |
| Islander | 2,680 | 1.0% | 2,828 | 1.0% |
| Unknown | 44,745 | 16.7% | 50,032 | 16.8% |
| White | 178,089 | 66.5% | 197,711 | 66.5% |
| Hispanic Origin[2] | | | | |
| Yes | 17,718 | 6.6% | 19,370 | 6.5% |
| No | 186,809 | 69.7% | 206,594 | 69.5% |
| Unknown | 63,404 | 23.7% | 71,352 | 24.0% |
| Year | | | | |
| 2010 | 21,526 | 5.9% | 137,423 | 4.7% |
| 2011 | 22,148 | 6.1% | 146,655 | 5.0% |
| 2012 | 23,873 | 6.5% | 154,232 | 5.3% |
| 2013 | 23,780 | 6.5% | 157,700 | 5.4% |
| 2014 | 23,495 | 6.4% | 159,539 | 5.4% |
| 2015 | 23,998 | 6.6% | 171,730 | 5.8% |
| 2016 | 25,131 | 6.9% | 176,710 | 6.0% |
| 2017 | 26,813 | 7.3% | 192,471 | 6.6% |
| 2018 | 29,057 | 8.0% | 230,364 | 7.8% |
| 2019 | 29,913 | 8.2% | 247,764 | 8.4% |
| 2020 | 27,501 | 7.5% | 262,687 | 8.9% |

**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**

| Patient Characteristics[1] | Incident Alcohol Abuse or Dependence | | Prevalent Alcohol Abuse or Dependence | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| 2021 | 30,205 | 8.3% | 300,363 | 10.2% |
| 2022 | 28,527 | 7.8% | 295,504 | 10.1% |
| 2023 | 29,364 | 8.0% | 303,702 | 10.3% |

[1]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.

[2]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**

| Patient Characteristics[1] | Incident Drug Abuse or Dependence | | Prevalent Drug Abuse or Dependence | |
|---|---|---|---|---|
| | **Number** | **Percent** | **Number** | **Percent** |
| Unique patients | 267,334 | 100.0% | 289,073 | 100.0% |
| Episodes | 338,932 | 100.0% | 1,237,505 | 100.0% |
| **Demographic Characteristics** | **Mean** | **Standard Deviation** | **Mean** | **Standard Deviation** |
| Age (years) | 43.5 | 18 | 41.4 | 17.2 |
| Age | **Number** | **Percent** | **Number** | **Percent** |
| 0-17 years | 21,807 | 6.4% | 102,965 | 8.3% |
| 18-43 years | 150,789 | 44.5% | 586,421 | 47.4% |
| 44-64 years | 121,445 | 35.8% | 417,286 | 33.7% |
| ≥ 65 years | 44,891 | 13.2% | 130,833 | 10.6% |
| Sex | | | | |
| Female | 123,373 | 46.1% | 133,444 | 46.2% |
| Male | 143,961 | 53.9% | 155,629 | 53.8% |
| Race[2] | | | | |
| American Indian or Alaska Native | 1,983 | 0.7% | 2,219 | 0.8% |
| Asian | 13,163 | 4.9% | 14,352 | 5.0% |
| Black or African American | 36,956 | 13.8% | 39,339 | 13.6% |
| Multi-racial | 18,677 | 7.0% | 20,658 | 7.1% |
| Islander | 5,977 | 2.2% | 6,681 | 2.3% |
| Unknown | 38,018 | 14.2% | 41,252 | 14.3% |
| White | 152,560 | 57.1% | 164,572 | 56.9% |
| Hispanic Origin[2] | | | | |
| Yes | 17,300 | 6.5% | 18,610 | 6.4% |
| No | 177,033 | 66.2% | 191,670 | 66.3% |
| Unknown | 73,001 | 27.3% | 78,793 | 27.3% |
| Year | | | | |
| 2010 | 26,821 | 7.9% | 81,350 | 6.6% |
| 2011 | 34,612 | 10.2% | 108,379 | 8.8% |
| 2012 | 32,288 | 9.5% | 121,082 | 9.8% |
| 2013 | 32,674 | 9.6% | 134,309 | 10.9% |
| 2014 | 32,676 | 9.6% | 133,182 | 10.8% |
| 2015 | 30,240 | 8.9% | 119,840 | 9.7% |
| 2016 | 14,843 | 4.4% | 47,084 | 3.8% |
| 2017 | 17,092 | 5.0% | 52,207 | 4.2% |
| 2018 | 19,512 | 5.8% | 65,502 | 5.3% |
| 2019 | 20,330 | 6.0% | 69,857 | 5.6% |
| 2020 | 18,351 | 5.4% | 69,206 | 5.6% |

**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**

| Patient Characteristics[1] | Incident Drug Abuse or Dependence | | Prevalent Drug Abuse or Dependence | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| 2021 | 21,009 | 6.2% | 79,827 | 6.5% |
| 2022 | 19,964 | 5.9% | 78,057 | 6.3% |
| 2023 | 18,520 | 5.5% | 77,623 | 6.3% |

[1]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.

[2]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 Graft (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[1] | Number | Percent | Number | Percent |
| Unique patients | 140,184 | 100.0% | 151,950 | 100.0% |
| Episodes | 274,848 | 100.0% | 1,711,117 | 100.0% |
| Demographic Characteristics | Mean | Standard Deviation | Mean | Standard Deviation |
| Age (years) | 71 | 11.4 | 71.8 | 10.9 |
| Age | Number | Percent | Number | Percent |
| 0-17 years | 152 | 0.1% | 196 | 0.0% |
| 18-43 years | 3,605 | 1.3% | 17,468 | 1.0% |
| 44-64 years | 78,393 | 28.5% | 429,875 | 25.1% |
| ≥ 65 years | 192,698 | 70.1% | 1,263,578 | 73.8% |
| Sex | | | | |
| Female | 40,236 | 28.7% | 43,441 | 28.6% |
| Male | 99,948 | 71.3% | 108,509 | 71.4% |
| Race[2] | | | | |
| American Indian or Alaska Native | 584 | 0.4% | 650 | 0.4% |
| Asian | 7,311 | 5.2% | 7,934 | 5.2% |
| Black or African American | 8,434 | 6.0% | 9,091 | 6.0% |
| Multi-racial | 5,319 | 3.8% | 5,751 | 3.8% |
| Native Hawaiian or Other Pacific Islander | 1,072 | 0.8% | 1,188 | 0.8% |
| Unknown | 16,602 | 11.8% | 18,522 | 12.2% |
| White | 100,862 | 71.9% | 108,814 | 71.6% |
| Hispanic Origin[2] | | | | |
| Yes | 5,747 | 4.1% | 6,315 | 4.2% |
| No | 102,545 | 73.2% | 110,519 | 72.7% |
| Unknown | 31,892 | 22.8% | 35,116 | 23.1% |
| Year | | | | |
| 2010 | 16,364 | 6.0% | 80,134 | 4.7% |
| 2011 | 16,506 | 6.0% | 78,890 | 4.6% |
| 2012 | 17,320 | 6.3% | 89,330 | 5.2% |
| 2013 | 18,058 | 6.6% | 93,538 | 5.5% |
| 2014 | 21,025 | 7.6% | 108,186 | 6.3% |
| 2015 | 20,375 | 7.4% | 116,388 | 6.8% |
| 2016 | 20,915 | 7.6% | 134,364 | 7.9% |
| 2017 | 21,956 | 8.0% | 147,625 | 8.6% |
| 2018 | 22,692 | 8.3% | 155,456 | 9.1% |
| 2019 | 21,859 | 8.0% | 159,223 | 9.3% |

**Table 1f. Aggregated Characteristics of Incident History of Coronary Artery Bypass Graft (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**

| Patient Characteristics[1] | Incident History of CABG or PTCA | | Prevalent History of CABG or PTCA | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| 2020 | 20,158 | 7.3% | 139,850 | 8.2% |
| 2021 | 21,056 | 7.7% | 149,867 | 8.8% |
| 2022 | 19,361 | 7.0% | 134,916 | 7.9% |
| 2023 | 17,203 | 6.3% | 123,350 | 7.2% |

[1]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.

[2]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**

| Patient Characteristics[1] | Incident History of Sudden Cardiac Arrest | | Prevalent History of Sudden Cardiac Arrest | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| Unique patients | 38,755 | 100.0% | 39,371 | 100.0% |
| Episodes | 43,203 | 100.0% | 104,742 | 100.0% |
| **Demographic Characteristics** | **Mean** | **Standard Deviation** | **Mean** | **Standard Deviation** |
| Age (years) | 67 | 16.3 | 65.5 | 15.9 |
| Age | **Number** | **Percent** | **Number** | **Percent** |
| 0-17 years | 540 | 1.2% | 1,335 | 1.3% |
| 18-43 years | 3,237 | 7.5% | 8,641 | 8.2% |
| 44-64 years | 13,231 | 30.6% | 35,312 | 33.7% |
| ≥ 65 years | 26,195 | 60.6% | 59,454 | 56.8% |
| Sex | | | | |
| Female | 15,432 | 39.8% | 15,664 | 39.8% |
| Male | 23,323 | 60.2% | 23,707 | 60.2% |
| Race[2] | | | | |
| American Indian or Alaska Native | 207 | 0.5% | 213 | 0.5% |
| Asian | 2,207 | 5.7% | 2,241 | 5.7% |
| Black or African American | 5,496 | 14.2% | 5,558 | 14.1% |
| Multi-racial | 1,865 | 4.8% | 1,907 | 4.8% |
| Native Hawaiian or Other Pacific Islander | 540 | 1.4% | 552 | 1.4% |
| Unknown | 5,186 | 13.4% | 5,292 | 13.4% |
| White | 23,254 | 60.0% | 23,608 | 60.0% |
| Hispanic Origin[2] | | | | |
| Yes | 1,815 | 4.7% | 1,843 | 4.7% |
| No | 25,481 | 65.7% | 25,904 | 65.8% |
| Unknown | 11,459 | 29.6% | 11,624 | 29.5% |
| Year | | | | |
| 2010 | 2,123 | 4.9% | 3,719 | 3.6% |
| 2011 | 2,323 | 5.4% | 4,033 | 3.9% |
| 2012 | 2,452 | 5.7% | 4,635 | 4.4% |
| 2013 | 2,584 | 6.0% | 5,151 | 4.9% |
| 2014 | 2,734 | 6.3% | 6,181 | 5.9% |
| 2015 | 2,776 | 6.4% | 6,398 | 6.1% |
| 2016 | 3,004 | 7.0% | 7,239 | 6.9% |
| 2017 | 3,330 | 7.7% | 8,058 | 7.7% |
| 2018 | 3,572 | 8.3% | 9,092 | 8.7% |
| 2019 | 3,668 | 8.5% | 9,848 | 9.4% |

**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**

| Patient Characteristics[1] | Incident History of Sudden Cardiac Arrest | | Prevalent History of Sudden Cardiac Arrest | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| 2020 | 3,776 | 8.7% | 9,755 | 9.3% |
| 2021 | 4,203 | 9.7% | 11,342 | 10.8% |
| 2022 | 3,621 | 8.4% | 10,060 | 9.6% |
| 2023 | 3,037 | 7.0% | 9,231 | 8.8% |

[1]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.

[2]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**

| Patient Characteristics | Has Non-Missing Value for Reported Race[1] | | Has Non-Missing Value for Imputed Race[2] | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| Unique patients[3] | 3,618,602 | 100.0% | 593,040 | 100.0% |
| **Demographic Characteristics** | **Mean** | **Standard Deviation** | **Mean** | **Standard Deviation** |
| Age[4] (years) | 41.5 | 22.1 | 41.8 | 22.5 |
| Age[4] | **Number** | **Percent** | **Number** | **Percent** |
| 0-17 years | 682,024 | 18.8% | 109,558 | 18.5% |
| 18-43 years | 1,231,703 | 34.0% | 204,454 | 34.5% |
| 44-64 years | 1,116,877 | 30.9% | 171,940 | 29.0% |
| ≥ 65 years | 587,998 | 16.2% | 107,088 | 18.1% |
| Sex | | | | |
| Female | 1,941,531 | 53.7% | 313,833 | 52.9% |
| Male | 1,677,071 | 46.3% | 279,207 | 47.1% |
| Race[5,6] | | | | |
| American Indian or Alaska Native | 14,784 | 0.4% | 229 | 0.0% |
| Asian | 303,532 | 8.4% | 0 | 0.0% |
| Black or African American | 405,223 | 11.2% | 3,131 | 0.5% |
| Multi-racial | 181,718 | 5.0% | ***** | ***** |
| Native Hawaiian or Other Pacific Islander | 36,274 | 1.0% | 0 | 0.0% |
| Unknown | 679,882 | 18.8% | 80,162 | 13.5% |
| White | 1,997,189 | 55.2% | 509,335 | 85.9% |
| Hispanic Origin[5] | | | | |
| Yes | 318,452 | 8.8% | 55,586 | 9.4% |
| No | 2,374,636 | 65.6% | 496,344 | 83.7% |
| Unknown | 925,514 | 25.6% | 41,110 | 6.9% |
| Year | | | | |
| 2020 | 2,963,378 | 81.9% | 500,690 | 84.4% |
| 2021 | 655,224 | 18.1% | 92,350 | 15.6% |

[1]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.

[2]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.

[3]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.

[4]Age was assessed on the index date, i.e., the first encounter.

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

[6]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)[1] in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

| Patient Characteristics[2] | Has Diagnosis Code that Indicates a Range of BMI | |
| --- | --- | --- |
| | Number | Percent |
| Unique patients | 1,241,685 | 100.0% |
| Episodes | 4,499,882 | 100.0% |
| **Demographic Characteristics** | **Mean** | **Standard Deviation** |
| Age (years) | 49.7 | 21.8 |
| Age | | |
| 0-17 years | 648,693 | 14.4% |
| 18-43 years | 950,820 | 21.1% |
| 44-64 years | 1,605,985 | 35.7% |
| ≥ 65 years | 1,294,384 | 28.8% |
| Sex | | |
| Female | 714,080 | 57.5% |
| Male | 527,605 | 42.5% |
| Race[3] | | |
| American Indian or Alaska Native | 6,355 | 0.5% |
| Asian | 60,566 | 4.9% |
| Black or African American | 143,202 | 11.5% |
| Multi-racial | 68,220 | 5.5% |
| Native Hawaiian or Other Pacific Islander | 17,552 | 1.4% |
| Unknown | 234,500 | 18.9% |
| White | 711,290 | 57.3% |
| Hispanic Origin[3] | | |
| Yes | 104,497 | 8.4% |
| No | 811,134 | 65.3% |
| Unknown | 326,054 | 26.3% |
| Year | | |
| 2010 | 51,579 | 1.1% |
| 2011 | 77,485 | 1.7% |
| 2012 | 104,560 | 2.3% |
| 2013 | 139,658 | 3.1% |
| 2014 | 200,946 | 4.5% |
| 2015 | 246,821 | 5.5% |
| 2016 | 294,839 | 6.6% |
| 2017 | 385,139 | 8.6% |
| 2018 | 463,585 | 10.3% |
| 2019 | 502,361 | 11.2% |

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

| | Has Diagnosis Code that Indicates a Range of BMI | |
|---|---|---|
| Patient Characteristics[2] | Number | Percent |
| 2020 | 460,619 | 10.2% |
| 2021 | 571,174 | 12.7% |
| 2022 | 527,917 | 11.7% |
| 2023 | 473,199 | 10.5% |

[1]All ICD-9 and ICD-10 codes for BMI ranges were assessed. Please refer to Appendix B for a list of codes used.

[2]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.

[3]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**

| Patient Characteristics[1] | Has Diagnosis Code that Indicates a Range of BMI that Classifies as Obesity | |
|---|---|---|
| | Number | Percent |
| Unique patients | 875,862 | 100.0% |
| Episodes | 3,623,071 | 100.0% |
| **Demographic Characteristics** | **Mean** | **Standard Deviation** |
| Age (years) | 52.3 | 19.1 |
| Age | **Number** | **Percent** |
| 0-17 years | 288,200 | 8.0% |
| 18-43 years | 825,727 | 22.8% |
| 44-64 years | 1,433,673 | 39.6% |
| ≥ 65 years | 1,075,471 | 29.7% |
| Sex | | |
| Female | 516,105 | 58.9% |
| Male | 359,757 | 41.1% |
| Race[2] | | |
| American Indian or Alaska Native | 5,141 | 0.6% |
| Asian | 29,253 | 3.3% |
| Black or African American | 118,184 | 13.5% |
| Multi-racial | 43,587 | 5.0% |
| Native Hawaiian or Other Pacific Islander | 12,453 | 1.4% |
| Unknown | 153,845 | 17.6% |
| White | 513,399 | 58.6% |
| Hispanic Origin[2] | | |
| Yes | 80,748 | 9.2% |
| No | 566,169 | 64.6% |
| Unknown | 228,945 | 26.1% |
| Year | | |
| 2010 | 34,923 | 1.0% |
| 2011 | 53,188 | 1.5% |
| 2012 | 73,135 | 2.0% |
| 2013 | 102,858 | 2.8% |
| 2014 | 160,496 | 4.4% |
| 2015 | 201,046 | 5.5% |
| 2016 | 240,272 | 6.6% |
| 2017 | 302,121 | 8.3% |
| 2018 | 357,038 | 9.9% |
| 2019 | 398,734 | 11.0% |

**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**

| Patient Characteristics[1] | Has Diagnosis Code that Indicates a Range of BMI that Classifies as Obesity | |
| --- | --- | --- |
| | Number | Percent |
| 2020 | 387,783 | 10.7% |
| 2021 | 480,302 | 13.3% |
| 2022 | 441,483 | 12.2% |
| 2023 | 389,692 | 10.8% |

[1]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.

[2]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**

| Patient Characteristics[1] | Has Diagnosis Code that Indicates a Range of BMI that Classifies as Overweight | |
|---|---|---|
| | Number | Percent |
| Unique patients | 225,785 | 100.0% |
| Episodes | 390,575 | 100.0% |
| **Demographic Characteristics** | **Mean** | **Standard Deviation** |
| Age (years) | 45.7 | 25.4 |
| Age | Number | Percent |
| 0-17 years | 105,219 | 26.9% |
| 18-43 years | 61,625 | 15.8% |
| 44-64 years | 111,807 | 28.6% |
| ≥ 65 years | 111,924 | 28.7% |
| Sex | | |
| Female | 120,912 | 53.6% |
| Male | 104,873 | 46.4% |
| Race[2] | | |
| American Indian or Alaska Native | 950 | 0.4% |
| Asian | 14,587 | 6.5% |
| Black or African American | 19,550 | 8.7% |
| Multi-racial | 13,149 | 5.8% |
| Native Hawaiian or Other Pacific Islander | 3,280 | 1.5% |
| Unknown | 48,493 | 21.5% |
| White | 125,776 | 55.7% |
| Hispanic Origin[2] | | |
| Yes | 18,965 | 8.4% |
| No | 148,648 | 65.8% |
| Unknown | 58,172 | 25.8% |
| Year | | |
| 2010 | 4,966 | 1.3% |
| 2011 | 8,510 | 2.2% |
| 2012 | 11,857 | 3.0% |
| 2013 | 13,277 | 3.4% |
| 2014 | 16,106 | 4.1% |
| 2015 | 22,396 | 5.7% |
| 2016 | 28,162 | 7.2% |
| 2017 | 43,032 | 11.0% |
| 2018 | 53,702 | 13.7% |
| 2019 | 46,215 | 11.8% |

**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**

| Patient Characteristics[1] | Has Diagnosis Code that Indicates a Range of BMI that Classifies as Overweight | |
| | Number | Percent |
| --- | --- | --- |
| 2020 | 31,946 | 8.2% |
| 2021 | 38,844 | 9.9% |
| 2022 | 35,744 | 9.2% |
| 2023 | 35,818 | 9.2% |

[1]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.

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

**Table 1L. Aggregated Characteristics of Has Non-Missing Value for Height in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

| Patient Characteristics[1] | Has Non-Missing Value for Height | |
|---|---|---|
| | Number | Percent |
| Unique patients | 4,737,209 | 100.0% |
| Episodes | 38,480,302 | 100.0% |
| **Demographic Characteristics** | **Mean** | **Standard Deviation** |
| Age (years) | 46.8 | 23.9 |
| Age | **Number** | **Percent** |
| 0-17 years | 6,913,156 | 18.0% |
| 18-43 years | 9,187,949 | 23.9% |
| 44-64 years | 12,001,385 | 31.2% |
| ≥ 65 years | 10,377,812 | 27.0% |
| Sex | | |
| Female | 2,576,128 | 54.4% |
| Male | 2,161,081 | 45.6% |
| Race[2] | | |
| American Indian or Alaska Native | 19,898 | 0.4% |
| Asian | 424,281 | 9.0% |
| Black or African American | 567,361 | 12.0% |
| Multi-racial | 255,195 | 5.4% |
| Native Hawaiian or Other Pacific Islander | 57,088 | 1.2% |
| Unknown | 662,325 | 14.0% |
| White | 2,751,061 | 58.1% |
| Hispanic Origin[2] | | |
| Yes | 471,810 | 10.0% |
| No | 3,295,784 | 69.6% |
| Unknown | 969,615 | 20.5% |
| Year | | |
| 2010 | 2,421,526 | 6.3% |
| 2011 | 2,633,789 | 6.8% |
| 2012 | 2,845,742 | 7.4% |
| 2013 | 2,876,969 | 7.5% |
| 2014 | 2,784,934 | 7.2% |
| 2015 | 2,842,153 | 7.4% |
| 2016 | 2,858,781 | 7.4% |
| 2017 | 2,937,028 | 7.6% |
| 2018 | 3,411,928 | 8.9% |
| 2019 | 3,751,323 | 9.7% |
| 2020 | 2,206,272 | 5.7% |

**Table 1L. Aggregated Characteristics of Has Non-Missing Value for Height in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

| Patient Characteristics[1] | Has Non-Missing Value for Height | |
| --- | --- | --- |
| | Number | Percent |
| 2021 | 2,823,800 | 7.3% |
| 2022 | 2,463,974 | 6.4% |
| 2023 | 1,622,083 | 4.2% |

[1]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.

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

**Table 1m. Aggregated Characteristics of Has Non-Missing Value for Weight in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

| Patient Characteristics[1] | Has Non-Missing Value for Weight | |
|---|---|---|
| | **Number** | **Percent** |
| Unique patients | 5,133,603 | 100.0% |
| Episodes | 72,218,847 | 100.0% |
| **Demographic Characteristics** | **Mean** | **Standard Deviation** |
| Age (years) | 48.5 | 23.7 |
| Age | **Number** | **Percent** |
| 0-17 years | 10,643,899 | 14.7% |
| 18-43 years | 18,187,306 | 25.2% |
| 44-64 years | 22,261,376 | 30.8% |
| ≥ 65 years | 21,126,266 | 29.3% |
| Sex | | |
| Female | 2,777,459 | 54.1% |
| Male | 2,356,144 | 45.9% |
| Race[2] | | |
| American Indian or Alaska Native | 21,840 | 0.4% |
| Asian | 455,672 | 8.9% |
| Black or African American | 592,992 | 11.6% |
| Multi-racial | 272,678 | 5.3% |
| Native Hawaiian or Other Pacific Islander | 63,157 | 1.2% |
| Unknown | 750,322 | 14.6% |
| White | 2,976,942 | 58.0% |
| Hispanic Origin[2] | | |
| Yes | 504,501 | 9.8% |
| No | 3,568,276 | 69.5% |
| Unknown | 1,060,826 | 20.7% |
| Year | | |
| 2010 | 4,966,765 | 6.9% |
| 2011 | 5,049,044 | 7.0% |
| 2012 | 5,240,339 | 7.3% |
| 2013 | 5,299,622 | 7.3% |
| 2014 | 5,234,593 | 7.2% |
| 2015 | 5,410,682 | 7.5% |
| 2016 | 5,508,583 | 7.6% |
| 2017 | 5,736,399 | 7.9% |
| 2018 | 6,215,562 | 8.6% |
| 2019 | 6,595,946 | 9.1% |
| 2020 | 3,868,488 | 5.4% |

**Table 1m. Aggregated Characteristics of Has Non-Missing Value for Weight in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

| Patient Characteristics[1] | Has Non-Missing Value for Weight | |
| --- | --- | --- |
| | Number | Percent |
| 2021 | 4,771,936 | 6.6% |
| 2022 | 4,565,987 | 6.3% |
| 2023 | 3,754,901 | 5.2% |

[1]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.

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

**Table 1n. Aggregated Characteristics of Has Non-Missing Values for Both Height and Weight within +/- Six Months in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

| Patient Characteristics[1] | Has Non-Missing Values for Both Height and Weight within +/- Six Months | |
|---|---|---|
| | Number | Percent |
| Unique patients | 3,548,406 | 100.0% |
| Episodes | 47,912,345 | 100.0% |
| **Demographic Characteristics** | **Mean** | **Standard Deviation** |
| Age (years) | 55.8 | 18.2 |
| Age | **Number** | **Percent** |
| 18-43 years | 13,481,887 | 28.1% |
| 44-64 years | 17,495,643 | 36.5% |
| ≥ 65 years | 16,934,815 | 35.3% |
| Sex | | |
| Female | 1,988,871 | 56.0% |
| Male | 1,559,535 | 44.0% |
| Race[2] | | |
| American Indian or Alaska Native | 14,839 | 0.4% |
| Asian | 316,545 | 8.9% |
| Black or African American | 412,160 | 11.6% |
| Multi-racial | 160,901 | 4.5% |
| Native Hawaiian or Other Pacific Islander | 40,263 | 1.1% |
| Unknown | 430,856 | 12.1% |
| White | 2,172,842 | 61.2% |
| Hispanic Origin[2] | | |
| Yes | 323,016 | 9.1% |
| No | 2,549,516 | 71.8% |
| Unknown | 675,874 | 19.0% |
| Year | | |
| 2010 | 3,277,111 | 6.8% |
| 2011 | 3,467,562 | 7.2% |
| 2012 | 3,695,137 | 7.7% |
| 2013 | 3,749,405 | 7.8% |
| 2014 | 3,683,233 | 7.7% |
| 2015 | 3,767,612 | 7.9% |
| 2016 | 3,836,755 | 8.0% |
| 2017 | 3,986,202 | 8.3% |
| 2018 | 4,347,955 | 9.1% |
| 2019 | 4,595,078 | 9.6% |
| 2020 | 2,612,268 | 5.5% |
| 2021 | 3,341,834 | 7.0% |

**Table 1n. Aggregated Characteristics of Has Non-Missing Values for Both Height and Weight within +/- Six Months in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

| Patient Characteristics[1] | Has Non-Missing Values for Both Height and Weight within +/- Six Months | |
| --- | --- | --- |
| | Number | Percent |
| 2022 | 2,381,488 | 5.0% |
| 2023 | 1,170,705 | 2.4% |

[1]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.

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

**Table 1o. Aggregated Characteristics of Body Mass Index (BMI) Calculated from Vitals in the Obesity Range in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

| Patient Characteristics[1] | Has BMI Calculated from Vitals is in the Obesity Range | |
|---|---|---|
| | **Number** | **Percent** |
| Unique patients | 1,578,887 | 100.0% |
| Episodes | 19,504,440 | 100.0% |
| **Demographic Characteristics** | **Mean** | **Standard Deviation** |
| Age (years) | 55.1 | 16.2 |
| Age | **Number** | **Percent** |
| 18-43 years | 5,174,717 | 26.5% |
| 44-64 years | 8,261,282 | 42.4% |
| ≥ 65 years | 6,068,441 | 31.1% |
| Sex | | |
| Female | 895,143 | 56.7% |
| Male | 683,744 | 43.3% |
| Race[2] | | |
| American Indian or Alaska Native | 8,485 | 0.5% |
| Asian | 74,719 | 4.7% |
| Black or African American | 233,924 | 14.8% |
| Multi-racial | 77,114 | 4.9% |
| Native Hawaiian or Other Pacific Islander | 26,100 | 1.7% |
| Unknown | 196,133 | 12.4% |
| White | 962,412 | 61.0% |
| Hispanic Origin[2] | | |
| Yes | 167,127 | 10.6% |
| No | 1,093,678 | 69.3% |
| Unknown | 318,082 | 20.1% |
| Year | | |
| 2010 | 1,285,554 | 6.6% |
| 2011 | 1,360,312 | 7.0% |
| 2012 | 1,453,921 | 7.5% |
| 2013 | 1,485,809 | 7.6% |
| 2014 | 1,478,205 | 7.6% |
| 2015 | 1,525,159 | 7.8% |
| 2016 | 1,569,446 | 8.0% |
| 2017 | 1,637,330 | 8.4% |
| 2018 | 1,802,301 | 9.2% |
| 2019 | 1,915,135 | 9.8% |
| 2020 | 1,104,497 | 5.7% |
| 2021 | 1,417,632 | 7.3% |

**Table 1o. Aggregated Characteristics of Body Mass Index (BMI) Calculated from Vitals in the Obesity Range in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

| Patient Characteristics[1] | Has BMI Calculated from Vitals is in the Obesity Range | |
|---|---|---|
| | Number | Percent |
| 2022 | 984,107 | 5.0% |
| 2023 | 485,032 | 2.5% |

[1]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.

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

**Table 1p. Aggregated Characteristics of Body Mass Index (BMI) Calculated from Vitals in the Overweight Range in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

| Patient Characteristics[1] | Has BMI Calculated from Vitals is in the Overweight Range | |
|---|---|---|
| | **Number** | **Percent** |
| Unique patients | 1,747,980 | 100.0% |
| Episodes | 15,282,349 | 100.0% |
| **Demographic Characteristics** | **Mean** | **Standard Deviation** |
| Age (years) | 57.4 | 18 |
| Age | **Number** | **Percent** |
|   18-43 years | 3,901,635 | 25.5% |
|   44-64 years | 5,425,203 | 35.5% |
|   ≥ 65 years | 5,955,511 | 39.0% |
| Sex | | |
|   Female | 919,425 | 52.6% |
|   Male | 828,555 | 47.4% |
| Race[2] | | |
|   American Indian or Alaska Native | 6,675 | 0.4% |
|   Asian | 157,133 | 9.0% |
|   Black or African American | 203,650 | 11.7% |
|   Multi-racial | 79,401 | 4.5% |
|   Native Hawaiian or Other Pacific Islander | 15,968 | 0.9% |
|   Unknown | 205,207 | 11.7% |
|   White | 1,079,946 | 61.8% |
| Hispanic Origin[2] | | |
|   Yes | 166,086 | 9.5% |
|   No | 1,264,007 | 72.3% |
|   Unknown | 317,887 | 18.2% |
| Year | | |
|   2010 | 1,058,339 | 6.9% |
|   2011 | 1,121,472 | 7.3% |
|   2012 | 1,195,684 | 7.8% |
|   2013 | 1,209,216 | 7.9% |
|   2014 | 1,180,920 | 7.7% |
|   2015 | 1,201,622 | 7.9% |
|   2016 | 1,225,035 | 8.0% |
|   2017 | 1,270,753 | 8.3% |
|   2018 | 1,380,187 | 9.0% |
|   2019 | 1,453,832 | 9.5% |
|   2020 | 826,404 | 5.4% |
|   2021 | 1,046,974 | 6.9% |

**Table 1p. Aggregated Characteristics of Body Mass Index (BMI) Calculated from Vitals in the Overweight Range in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

| Patient Characteristics[1] | Has BMI Calculated from Vitals is in the Overweight Range | |
| | Number | Percent |
|---|---|---|
| 2022 | 744,635 | 4.9% |
| 2023 | 367,276 | 2.4% |

[1]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.

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

**Table 1q. Aggregated Characteristics of Has Non-Missing Value for Diastolic Blood Pressure in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

| Patient Characteristics[1] | Has Non-Missing Value for Diastolic Blood Pressure | |
|---|---|---|
| | Number | Percent |
| Unique patients | 5,091,900 | 100.0% |
| Episodes | 89,363,906 | 100.0% |
| **Demographic Characteristics** | **Mean** | **Standard Deviation** |
| Age (years) | 52.8 | 21.8 |
| Age | **Number** | **Percent** |
| 0-17 years | 7,519,311 | 8.4% |
| 18-43 years | 22,252,277 | 24.9% |
| 44-64 years | 29,437,212 | 32.9% |
| ≥ 65 years | 30,155,106 | 33.7% |
| Sex | | |
| Female | 2,757,419 | 54.2% |
| Male | 2,334,481 | 45.8% |
| Race[2] | | |
| American Indian or Alaska Native | 21,820 | 0.4% |
| Asian | 450,769 | 8.9% |
| Black or African American | 584,840 | 11.5% |
| Multi-racial | 263,019 | 5.2% |
| Native Hawaiian or Other Pacific Islander | 62,219 | 1.2% |
| Unknown | 744,430 | 14.6% |
| White | 2,964,803 | 58.2% |
| Hispanic Origin[2] | | |
| Yes | 496,098 | 9.7% |
| No | 3,544,828 | 69.6% |
| Unknown | 1,050,974 | 20.6% |
| Year | | |
| 2010 | 5,960,898 | 6.7% |
| 2011 | 6,119,191 | 6.8% |
| 2012 | 6,343,186 | 7.1% |
| 2013 | 6,442,225 | 7.2% |
| 2014 | 6,378,023 | 7.1% |
| 2015 | 6,659,004 | 7.5% |
| 2016 | 6,871,263 | 7.7% |
| 2017 | 7,232,675 | 8.1% |
| 2018 | 7,720,518 | 8.6% |
| 2019 | 8,039,582 | 9.0% |
| 2020 | 4,934,092 | 5.5% |

**Table 1q. Aggregated Characteristics of Has Non-Missing Value for Diastolic Blood Pressure in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

| Patient Characteristics[1] | Has Non-Missing Value for Diastolic Blood Pressure | |
| --- | --- | --- |
| | Number | Percent |
| 2021 | 5,993,655 | 6.7% |
| 2022 | 5,785,282 | 6.5% |
| 2023 | 4,884,312 | 5.5% |

[1]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.

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

**Table 1r. Aggregated Characteristics of Has Non-Missing Value for Systolic Blood Pressure in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

| Patient Characteristics[1] | Has Non-Missing Value for Systolic Blood Pressure | |
|---|---|---|
| | **Number** | **Percent** |
| Unique patients | 5,091,957 | 100.0% |
| Episodes | 89,370,080 | 100.0% |
| **Demographic Characteristics** | **Mean** | **Standard Deviation** |
| Age (years) | 52.8 | 21.8 |
| Age | **Number** | **Percent** |
| 0-17 years | 7,519,684 | 8.4% |
| 18-43 years | 22,253,553 | 24.9% |
| 44-64 years | 29,439,201 | 32.9% |
| ≥ 65 years | 30,157,642 | 33.7% |
| Sex | | |
| Female | 2,757,447 | 54.2% |
| Male | 2,334,510 | 45.8% |
| Race[2] | | |
| American Indian or Alaska Native | 21,820 | 0.4% |
| Asian | 450,774 | 8.9% |
| Black or African American | 584,845 | 11.5% |
| Multi-racial | 263,022 | 5.2% |
| Native Hawaiian or Other Pacific Islander | 62,220 | 1.2% |
| Unknown | 744,437 | 14.6% |
| White | 2,964,839 | 58.2% |
| Hispanic Origin[2] | | |
| Yes | 496,101 | 9.7% |
| No | 3,544,872 | 69.6% |
| Unknown | 1,050,984 | 20.6% |
| Year | | |
| 2010 | 5,961,441 | 6.7% |
| 2011 | 6,119,569 | 6.8% |
| 2012 | 6,343,447 | 7.1% |
| 2013 | 6,442,523 | 7.2% |
| 2014 | 6,378,281 | 7.1% |
| 2015 | 6,659,293 | 7.5% |
| 2016 | 6,871,677 | 7.7% |
| 2017 | 7,233,206 | 8.1% |
| 2018 | 7,721,091 | 8.6% |
| 2019 | 8,040,300 | 9.0% |
| 2020 | 4,934,487 | 5.5% |

**Table 1r. Aggregated Characteristics of Has Non-Missing Value for Systolic Blood Pressure in the Sentinel Distributed Database from January 1, 2010 to December 31, 2023**

| Patient Characteristics[1] | Has Non-Missing Value for Systolic Blood Pressure | |
| --- | --- | --- |
| | Number | Percent |
| 2021 | 5,994,142 | 6.7% |
| 2022 | 5,785,789 | 6.5% |
| 2023 | 4,884,834 | 5.5% |

[1]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.

[2]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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| **Incident Capture (365-Day Washout) of Confounding Conditions** | | | | | |
| Incident obesity | 1,241,553 | 8,156,175 | 1,522.22 | 2,269,697 | 34,569,702.2 |
| Incident overweight | 450,881 | 8,259,759 | 545.88 | 586,628 | 37,382,610.2 |
| Incident smoking | 1,105,699 | 8,142,940 | 1,357.86 | 1,910,008 | 35,142,517.1 |
| Incident alcohol abuse or dependence | 267,931 | 8,245,235 | 324.95 | 365,331 | 37,502,437.4 |
| Incident drug abuse or dependence | 267,334 | 8,253,693 | 323.9 | 338,932 | 37,570,845.0 |
| Incident history of Coronary Arterial Bypass Graft (CABG) or Percutaneous Transluminal Coronary Angioplasty (PTCA) | 140,184 | 8,262,937 | 169.65 | 274,848 | 37,570,337.8 |
| Incident history of sudden cardiac arrest | 38,755 | 8,274,140 | 46.84 | 43,203 | 38,010,756.0 |
| **Prevalent Capture of Confounding Conditions** | | | | | |
| Prevalent obesity | 1,348,804 | 8,275,067 | 1,629.96 | 8,293,162 | 38,037,156.5 |
| Prevalent overweight | 462,354 | 8,275,067 | 558.73 | 902,326 | 38,037,156.5 |
| Prevalent smoking | 1,220,664 | 8,275,067 | 1,475.11 | 7,028,690 | 38,037,156.5 |
| Prevalent alcohol abuse or dependence | 297,316 | 8,275,067 | 359.29 | 2,936,844 | 38,037,156.5 |
| Prevalent drug abuse or dependence | 289,073 | 8,275,067 | 349.33 | 1,237,505 | 38,037,156.5 |
| Prevalent history of CABG or PTCA | 151,950 | 8,275,067 | 183.62 | 1,711,117 | 38,037,156.5 |
| Prevalent history of sudden cardiac arrest | 39,371 | 8,275,067 | 47.58 | 104,742 | 38,037,156.5 |
| **Capture of Other Confounding Covariates[2]** | | | | | |
| Has non-missing value for reported race | 3,618,602 | 4,052,096 | 8,930.20 | 3,618,602 | N/A |
| Has non-missing value for imputed race | 593,040 | 646,086 | 9,178.96 | 593,040 | N/A |
| Has diagnosis code that indicates a range of Body Mass Index (BMI) | 1,241,685 | 8,275,067 | 1,500.51 | 4,499,882 | 38,037,156.5 |
| Has diagnosis code that indicates a range of BMI that classifies as obesity | 875,862 | 8,275,067 | 1,058.43 | 3,623,071 | 38,037,156.5 |
| Has diagnosis code that indicates a range of BMI that classifies as overweight | 225,785 | 8,275,067 | 272.85 | 390,575 | 38,037,156.5 |
| Has non-missing value for height | 4,737,209 | 8,275,067 | 5,724.68 | 38,480,302 | 38,037,156.5 |
| Has non-missing value for weight | 5,133,603 | 8,275,067 | 6,203.70 | 72,218,847 | 38,037,156.5 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| Has non-missing values for both height and weight within +/- six months | 3,548,406 | 6,079,044 | 5,837.11 | 47,912,345 | 27,359,946.9 |
| BMI calculated from vitals in the obesity range | 1,578,887 | 6,079,044 | 2,597.26 | 19,504,440 | 27,359,946.9 |
| BMI calculated from vitals in the overweight range | 1,747,980 | 6,079,044 | 2,875.42 | 15,282,349 | 27,359,946.9 |
| Has non-missing value for diastolic blood pressure | 5,091,900 | 8,275,067 | 6,153.30 | 89,363,906 | 38,037,156.5 |
| Has non-missing value for systolic blood pressure | 5,091,957 | 8,275,067 | 6,153.37 | 89,370,080 | 38,037,156.5 |

[1]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.

[2]Unlike earlier sections describing incident and prevalent capture of confounding conditions from diagnosis, procedure, and drug codes, this section captures additional prevalent conditions from demographic data (race and imputed race), diagnosis codes (BMI categories), and vitals data (remaining variables).

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| **Incident Capture (365-Day Washout) of Confounding Conditions** | | | | | |
| *Incident obesity* | | | | | |
| 2010 | 104,140 | 2,638,283 | 394.73 | 104,140 | 2,226,560.9 |
| 2011 | 112,343 | 2,704,278 | 415.43 | 112,343 | 2,270,801.7 |
| 2012 | 121,867 | 2,866,613 | 425.13 | 121,867 | 2,317,222.1 |
| 2013 | 134,487 | 2,702,371 | 497.66 | 134,487 | 2,281,015.0 |
| 2014 | 139,075 | 2,707,508 | 513.66 | 139,075 | 2,263,794.9 |
| 2015 | 149,026 | 2,882,082 | 517.08 | 149,026 | 2,378,399.0 |
| 2016 | 158,200 | 3,232,989 | 489.33 | 158,200 | 2,488,811.8 |
| 2017 | 178,586 | 3,175,976 | 562.3 | 178,586 | 2,609,844.2 |
| 2018 | 199,365 | 3,327,465 | 599.15 | 199,365 | 2,720,003.4 |
| 2019 | 200,658 | 3,369,517 | 595.51 | 200,658 | 2,764,885.6 |
| 2020 | 184,419 | 3,533,115 | 521.97 | 184,419 | 2,779,655.1 |
| 2021 | 222,371 | 3,369,822 | 659.89 | 222,371 | 2,828,634.2 |
| 2022 | 194,077 | 3,272,361 | 593.08 | 194,077 | 2,521,899.1 |
| 2023 | 171,083 | 2,543,573 | 672.61 | 171,083 | 2,118,175.2 |
| *Incident overweight* | | | | | |
| 2010 | 25,490 | 2,695,836 | 94.55 | 25,490 | 2,345,542.7 |
| 2011 | 29,216 | 2,765,816 | 105.63 | 29,216 | 2,397,368.1 |
| 2012 | 31,204 | 2,941,553 | 106.08 | 31,204 | 2,455,567.5 |
| 2013 | 32,128 | 2,776,246 | 115.72 | 32,128 | 2,429,222.7 |
| 2014 | 34,033 | 2,799,744 | 121.56 | 34,033 | 2,433,040.5 |
| 2015 | 38,388 | 2,991,119 | 128.34 | 38,388 | 2,569,453.6 |
| 2016 | 40,848 | 3,359,467 | 121.59 | 40,848 | 2,691,743.9 |
| 2017 | 50,787 | 3,299,017 | 153.95 | 50,787 | 2,827,145.0 |
| 2018 | 58,020 | 3,466,844 | 167.36 | 58,020 | 2,959,892.7 |
| 2019 | 58,195 | 3,521,140 | 165.27 | 58,195 | 3,020,889.6 |
| 2020 | 45,369 | 3,687,487 | 123.04 | 45,369 | 3,026,794.1 |
| 2021 | 56,545 | 3,525,064 | 160.41 | 56,545 | 3,101,751.9 |
| 2022 | 45,866 | 3,445,735 | 133.11 | 45,866 | 2,779,838.9 |
| 2023 | 40,539 | 2,675,897 | 151.5 | 40,539 | 2,344,359.1 |
| *Incident smoking* | | | | | |
| 2010 | 104,458 | 2,626,174 | 397.76 | 104,458 | 2,220,105.3 |
| 2011 | 109,945 | 2,691,887 | 408.43 | 109,945 | 2,267,483.2 |
| 2012 | 114,492 | 2,855,902 | 400.9 | 114,492 | 2,319,856.5 |
| 2013 | 118,283 | 2,696,625 | 438.63 | 118,283 | 2,289,920.7 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2014 | 124,026 | 2,716,996 | 456.48 | 124,026 | 2,289,427.2 |
| 2015 | 134,097 | 2,896,732 | 462.93 | 134,097 | 2,412,261.8 |
| 2016 | 144,429 | 3,246,865 | 444.83 | 144,429 | 2,523,069.5 |
| 2017 | 156,475 | 3,190,286 | 490.47 | 156,475 | 2,646,456.2 |
| 2018 | 166,515 | 3,349,672 | 497.11 | 166,515 | 2,770,736.6 |
| 2019 | 168,585 | 3,400,441 | 495.77 | 168,585 | 2,826,961.5 |
| 2020 | 139,260 | 3,567,631 | 390.34 | 139,260 | 2,840,736.0 |
| 2021 | 159,056 | 3,426,132 | 464.24 | 159,056 | 2,930,399.1 |
| 2022 | 143,668 | 3,345,847 | 429.39 | 143,668 | 2,612,241.9 |
| 2023 | 126,719 | 2,591,057 | 489.06 | 126,719 | 2,192,861.6 |
| *Incident alcohol abuse or dependence* | | | | | |
| 2010 | 21,526 | 2,687,491 | 80.1 | 21,526 | 2,342,991.0 |
| 2011 | 22,148 | 2,757,961 | 80.31 | 22,148 | 2,397,955.1 |
| 2012 | 23,873 | 2,933,264 | 81.39 | 23,873 | 2,457,767.8 |
| 2013 | 23,780 | 2,767,064 | 85.94 | 23,780 | 2,430,746.2 |
| 2014 | 23,495 | 2,790,979 | 84.18 | 23,495 | 2,435,929.8 |
| 2015 | 23,998 | 2,982,424 | 80.46 | 23,998 | 2,575,297.7 |
| 2016 | 25,131 | 3,353,745 | 74.93 | 25,131 | 2,701,990.4 |
| 2017 | 26,813 | 3,293,459 | 81.41 | 26,813 | 2,841,850.4 |
| 2018 | 29,057 | 3,462,648 | 83.92 | 29,057 | 2,982,226.6 |
| 2019 | 29,913 | 3,517,026 | 85.05 | 29,913 | 3,045,215.4 |
| 2020 | 27,501 | 3,679,296 | 74.75 | 27,501 | 3,041,783.3 |
| 2021 | 30,205 | 3,513,055 | 85.98 | 30,205 | 3,115,808.1 |
| 2022 | 28,527 | 3,438,824 | 82.96 | 28,527 | 2,788,048.8 |
| 2023 | 29,364 | 2,662,351 | 110.29 | 29,364 | 2,344,826.7 |
| *Incident drug abuse or dependence* | | | | | |
| 2010 | 26,821 | 2,692,306 | 99.62 | 26,821 | 2,346,608.6 |
| 2011 | 34,612 | 2,756,963 | 125.54 | 34,612 | 2,389,844.6 |
| 2012 | 32,288 | 2,926,421 | 110.33 | 32,288 | 2,443,865.1 |
| 2013 | 32,674 | 2,760,011 | 118.38 | 32,674 | 2,417,127.7 |
| 2014 | 32,676 | 2,782,771 | 117.42 | 32,676 | 2,420,784.3 |
| 2015 | 30,240 | 2,973,987 | 101.68 | 30,240 | 2,558,848.0 |
| 2016 | 14,843 | 3,362,743 | 44.14 | 14,843 | 2,704,926.6 |
| 2017 | 17,092 | 3,304,472 | 51.72 | 17,092 | 2,859,509.9 |
| 2018 | 19,512 | 3,474,693 | 56.15 | 19,512 | 3,000,376.9 |
| 2019 | 20,330 | 3,529,679 | 57.6 | 20,330 | 3,063,738.0 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2020 | 18,351 | 3,692,700 | 49.7 | 18,351 | 3,059,790.6 |
| 2021 | 21,009 | 3,526,987 | 59.57 | 21,009 | 3,134,745.7 |
| 2022 | 19,964 | 3,453,303 | 57.81 | 19,964 | 2,806,647.8 |
| 2023 | 18,520 | 2,676,024 | 69.21 | 18,520 | 2,364,031.1 |
| *Incident history of CABG or PTCA* | | | | | |
| 2010 | 16,364 | 2,689,959 | 60.83 | 16,364 | 2,347,299.9 |
| 2011 | 16,506 | 2,759,932 | 59.81 | 16,506 | 2,401,874.0 |
| 2012 | 17,320 | 2,937,153 | 58.97 | 17,320 | 2,463,176.6 |
| 2013 | 18,058 | 2,770,110 | 65.19 | 18,058 | 2,436,659.5 |
| 2014 | 21,025 | 2,792,960 | 75.28 | 21,025 | 2,438,838.8 |
| 2015 | 20,375 | 2,983,339 | 68.3 | 20,375 | 2,577,447.4 |
| 2016 | 20,915 | 3,352,752 | 62.38 | 20,915 | 2,701,512.9 |
| 2017 | 21,956 | 3,291,564 | 66.7 | 21,956 | 2,841,700.8 |
| 2018 | 22,692 | 3,462,718 | 65.53 | 22,692 | 2,984,108.3 |
| 2019 | 21,859 | 3,517,400 | 62.15 | 21,859 | 3,049,495.5 |
| 2020 | 20,158 | 3,683,000 | 54.73 | 20,158 | 3,047,016.4 |
| 2021 | 21,056 | 3,518,246 | 59.85 | 21,056 | 3,125,074.9 |
| 2022 | 19,361 | 3,444,402 | 56.21 | 19,361 | 2,799,248.5 |
| 2023 | 17,203 | 2,668,238 | 64.47 | 17,203 | 2,356,884.5 |
| *Incident history of sudden cardiac arrest* | | | | | |
| 2010 | 2,123 | 2,702,680 | 7.86 | 2,123 | 2,372,483.2 |
| 2011 | 2,323 | 2,772,751 | 8.38 | 2,323 | 2,427,226.2 |
| 2012 | 2,452 | 2,950,942 | 8.31 | 2,452 | 2,489,043.9 |
| 2013 | 2,584 | 2,783,812 | 9.28 | 2,584 | 2,463,169.5 |
| 2014 | 2,734 | 2,808,290 | 9.74 | 2,734 | 2,468,525.9 |
| 2015 | 2,776 | 3,001,173 | 9.25 | 2,776 | 2,609,407.4 |
| 2016 | 3,004 | 3,374,133 | 8.9 | 3,004 | 2,735,932.5 |
| 2017 | 3,330 | 3,312,661 | 10.05 | 3,330 | 2,877,881.1 |
| 2018 | 3,572 | 3,484,501 | 10.25 | 3,572 | 3,021,588.1 |
| 2019 | 3,668 | 3,540,005 | 10.36 | 3,668 | 3,086,725.2 |
| 2020 | 3,776 | 3,704,686 | 10.19 | 3,776 | 3,082,301.9 |
| 2021 | 4,203 | 3,537,772 | 11.88 | 4,203 | 3,159,248.1 |
| 2022 | 3,621 | 3,464,876 | 10.45 | 3,621 | 2,830,921.8 |
| 2023 | 3,037 | 2,685,900 | 11.31 | 3,037 | 2,386,301.1 |

**Prevalent Capture of Confounding Conditions**

*Prevalent obesity*

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2010 | 154,545 | 2,703,075 | 571.74 | 320,147 | 2,373,531.9 |
| 2011 | 165,389 | 2,773,175 | 596.39 | 335,434 | 2,428,396.3 |
| 2012 | 181,795 | 2,951,528 | 615.94 | 376,465 | 2,490,365.9 |
| 2013 | 199,735 | 2,784,406 | 717.33 | 415,164 | 2,464,620.4 |
| 2014 | 220,738 | 2,808,974 | 785.83 | 473,873 | 2,470,138.4 |
| 2015 | 245,147 | 3,001,966 | 816.62 | 536,660 | 2,611,135.9 |
| 2016 | 258,146 | 3,375,095 | 764.86 | 578,089 | 2,737,711.1 |
| 2017 | 288,303 | 3,313,638 | 870.05 | 655,504 | 2,879,911.4 |
| 2018 | 326,048 | 3,485,601 | 935.41 | 739,643 | 3,023,795.9 |
| 2019 | 339,106 | 3,541,210 | 957.6 | 765,238 | 3,089,116.3 |
| 2020 | 310,092 | 3,706,081 | 836.71 | 715,649 | 3,084,807.1 |
| 2021 | 363,610 | 3,539,132 | 1,027.40 | 856,851 | 3,161,857.0 |
| 2022 | 340,691 | 3,466,423 | 982.83 | 785,779 | 2,833,335.2 |
| 2023 | 290,824 | 2,686,962 | 1,082.35 | 738,666 | 2,388,433.5 |
| *Prevalent overweight* | | | | | |
| 2010 | 29,491 | 2,703,075 | 109.1 | 39,556 | 2,373,531.9 |
| 2011 | 32,972 | 2,773,175 | 118.9 | 41,888 | 2,428,396.3 |
| 2012 | 35,581 | 2,951,528 | 120.55 | 45,260 | 2,490,365.9 |
| 2013 | 36,502 | 2,784,406 | 131.09 | 45,947 | 2,464,620.4 |
| 2014 | 38,870 | 2,808,974 | 138.38 | 49,378 | 2,470,138.4 |
| 2015 | 43,972 | 3,001,966 | 146.48 | 56,321 | 2,611,135.9 |
| 2016 | 46,909 | 3,375,095 | 138.99 | 61,627 | 2,737,711.1 |
| 2017 | 58,686 | 3,313,638 | 177.1 | 80,029 | 2,879,911.4 |
| 2018 | 68,266 | 3,485,601 | 195.85 | 92,660 | 3,023,795.9 |
| 2019 | 69,342 | 3,541,210 | 195.81 | 93,476 | 3,089,116.3 |
| 2020 | 53,084 | 3,706,081 | 143.23 | 70,347 | 3,084,807.1 |
| 2021 | 64,697 | 3,539,132 | 182.8 | 85,333 | 3,161,857.0 |
| 2022 | 53,515 | 3,466,423 | 154.38 | 72,673 | 2,833,335.2 |
| 2023 | 47,123 | 2,686,962 | 175.38 | 67,831 | 2,388,433.5 |
| *Prevalent smoking* | | | | | |
| 2010 | 161,370 | 2,703,075 | 596.99 | 317,682 | 2,373,531.9 |
| 2011 | 170,615 | 2,773,175 | 615.23 | 339,464 | 2,428,396.3 |
| 2012 | 179,907 | 2,951,528 | 609.54 | 365,430 | 2,490,365.9 |
| 2013 | 185,219 | 2,784,406 | 665.2 | 382,337 | 2,464,620.4 |
| 2014 | 193,597 | 2,808,974 | 689.21 | 406,632 | 2,470,138.4 |
| 2015 | 213,138 | 3,001,966 | 709.99 | 461,367 | 2,611,135.9 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2016 | 228,372 | 3,375,095 | 676.64 | 518,303 | 2,737,711.1 |
| 2017 | 250,130 | 3,313,638 | 754.85 | 585,429 | 2,879,911.4 |
| 2018 | 270,559 | 3,485,601 | 776.22 | 666,339 | 3,023,795.9 |
| 2019 | 277,082 | 3,541,210 | 782.45 | 698,271 | 3,089,116.3 |
| 2020 | 235,005 | 3,706,081 | 634.11 | 587,028 | 3,084,807.1 |
| 2021 | 247,717 | 3,539,132 | 699.94 | 632,253 | 3,161,857.0 |
| 2022 | 231,298 | 3,466,423 | 667.25 | 574,969 | 2,833,335.2 |
| 2023 | 202,363 | 2,686,962 | 753.13 | 493,186 | 2,388,433.5 |
| *Prevalent alcohol abuse or dependence* | | | | | |
| 2010 | 32,561 | 2,703,075 | 120.46 | 137,423 | 2,373,531.9 |
| 2011 | 33,000 | 2,773,175 | 119 | 146,655 | 2,428,396.3 |
| 2012 | 35,798 | 2,951,528 | 121.29 | 154,232 | 2,490,365.9 |
| 2013 | 36,688 | 2,784,406 | 131.76 | 157,700 | 2,464,620.4 |
| 2014 | 36,788 | 2,808,974 | 130.97 | 159,539 | 2,470,138.4 |
| 2015 | 38,192 | 3,001,966 | 127.22 | 171,730 | 2,611,135.9 |
| 2016 | 38,452 | 3,375,095 | 113.93 | 176,710 | 2,737,711.1 |
| 2017 | 41,327 | 3,313,638 | 124.72 | 192,471 | 2,879,911.4 |
| 2018 | 45,782 | 3,485,601 | 131.35 | 230,364 | 3,023,795.9 |
| 2019 | 48,014 | 3,541,210 | 135.59 | 247,764 | 3,089,116.3 |
| 2020 | 45,919 | 3,706,081 | 123.9 | 262,687 | 3,084,807.1 |
| 2021 | 51,120 | 3,539,132 | 144.44 | 300,363 | 3,161,857.0 |
| 2022 | 49,667 | 3,466,423 | 143.28 | 295,504 | 2,833,335.2 |
| 2023 | 49,399 | 2,686,962 | 183.85 | 303,702 | 2,388,433.5 |
| *Prevalent drug abuse or dependence* | | | | | |
| 2010 | 33,324 | 2,703,075 | 123.28 | 81,350 | 2,373,531.9 |
| 2011 | 45,433 | 2,773,175 | 163.83 | 108,379 | 2,428,396.3 |
| 2012 | 48,902 | 2,951,528 | 165.68 | 121,082 | 2,490,365.9 |
| 2013 | 50,821 | 2,784,406 | 182.52 | 134,309 | 2,464,620.4 |
| 2014 | 51,949 | 2,808,974 | 184.94 | 133,182 | 2,470,138.4 |
| 2015 | 49,737 | 3,001,966 | 165.68 | 119,840 | 2,611,135.9 |
| 2016 | 19,581 | 3,375,095 | 58.02 | 47,084 | 2,737,711.1 |
| 2017 | 22,037 | 3,313,638 | 66.5 | 52,207 | 2,879,911.4 |
| 2018 | 25,580 | 3,485,601 | 73.39 | 65,502 | 3,023,795.9 |
| 2019 | 27,135 | 3,541,210 | 76.63 | 69,857 | 3,089,116.3 |
| 2020 | 25,446 | 3,706,081 | 68.66 | 69,206 | 3,084,807.1 |
| 2021 | 29,156 | 3,539,132 | 82.38 | 79,827 | 3,161,857.0 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2022 | 28,357 | 3,466,423 | 81.8 | 78,057 | 2,833,335.2 |
| 2023 | 26,070 | 2,686,962 | 97.02 | 77,623 | 2,388,433.5 |
| *Prevalent history of CABG or PTCA* | | | | | |
| 2010 | 27,940 | 2,703,075 | 103.36 | 80,134 | 2,373,531.9 |
| 2011 | 28,118 | 2,773,175 | 101.39 | 78,890 | 2,428,396.3 |
| 2012 | 29,231 | 2,951,528 | 99.04 | 89,330 | 2,490,365.9 |
| 2013 | 30,732 | 2,784,406 | 110.37 | 93,538 | 2,464,620.4 |
| 2014 | 35,195 | 2,808,974 | 125.29 | 108,186 | 2,470,138.4 |
| 2015 | 36,913 | 3,001,966 | 122.96 | 116,388 | 2,611,135.9 |
| 2016 | 39,489 | 3,375,095 | 117 | 134,364 | 2,737,711.1 |
| 2017 | 41,768 | 3,313,638 | 126.05 | 147,625 | 2,879,911.4 |
| 2018 | 43,260 | 3,485,601 | 124.11 | 155,456 | 3,023,795.9 |
| 2019 | 43,154 | 3,541,210 | 121.86 | 159,223 | 3,089,116.3 |
| 2020 | 39,745 | 3,706,081 | 107.24 | 139,850 | 3,084,807.1 |
| 2021 | 39,761 | 3,539,132 | 112.35 | 149,867 | 3,161,857.0 |
| 2022 | 37,625 | 3,466,423 | 108.54 | 134,916 | 2,833,335.2 |
| 2023 | 34,230 | 2,686,962 | 127.39 | 123,350 | 2,388,433.5 |
| *Prevalent history of sudden cardiac arrest* | | | | | |
| 2010 | 2,351 | 2,703,075 | 8.7 | 3,719 | 2,373,531.9 |
| 2011 | 2,600 | 2,773,175 | 9.38 | 4,033 | 2,428,396.3 |
| 2012 | 2,788 | 2,951,528 | 9.45 | 4,635 | 2,490,365.9 |
| 2013 | 2,986 | 2,784,406 | 10.72 | 5,151 | 2,464,620.4 |
| 2014 | 3,209 | 2,808,974 | 11.42 | 6,181 | 2,470,138.4 |
| 2015 | 3,336 | 3,001,966 | 11.11 | 6,398 | 2,611,135.9 |
| 2016 | 3,608 | 3,375,095 | 10.69 | 7,239 | 2,737,711.1 |
| 2017 | 4,000 | 3,313,638 | 12.07 | 8,058 | 2,879,911.4 |
| 2018 | 4,326 | 3,485,601 | 12.41 | 9,092 | 3,023,795.9 |
| 2019 | 4,507 | 3,541,210 | 12.73 | 9,848 | 3,089,116.3 |
| 2020 | 4,650 | 3,706,081 | 12.55 | 9,755 | 3,084,807.1 |
| 2021 | 5,106 | 3,539,132 | 14.43 | 11,342 | 3,161,857.0 |
| 2022 | 4,547 | 3,466,423 | 13.12 | 10,060 | 2,833,335.2 |
| 2023 | 3,839 | 2,686,962 | 14.29 | 9,231 | 2,388,433.5 |
| **Capture of Other Confounding Covariates[2]** | | | | | |
| *Has diagnosis code that indicates a range of Body Mass Index (BMI)* | | | | | |
| 2010 | 40,898 | 2,703,075 | 151.3 | 51,579 | 2,373,531.9 |
| 2011 | 59,565 | 2,773,175 | 214.79 | 77,485 | 2,428,396.3 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2012 | 78,696 | 2,951,528 | 266.63 | 104,560 | 2,490,365.9 |
| 2013 | 99,838 | 2,784,406 | 358.56 | 139,658 | 2,464,620.4 |
| 2014 | 127,808 | 2,808,974 | 455 | 200,946 | 2,470,138.4 |
| 2015 | 150,115 | 3,001,966 | 500.06 | 246,821 | 2,611,135.9 |
| 2016 | 170,261 | 3,375,095 | 504.46 | 294,839 | 2,737,711.1 |
| 2017 | 219,119 | 3,313,638 | 661.26 | 385,139 | 2,879,911.4 |
| 2018 | 264,080 | 3,485,601 | 757.63 | 463,585 | 3,023,795.9 |
| 2019 | 276,403 | 3,541,210 | 780.53 | 502,361 | 3,089,116.3 |
| 2020 | 247,087 | 3,706,081 | 666.71 | 460,619 | 3,084,807.1 |
| 2021 | 299,247 | 3,539,132 | 845.54 | 571,174 | 3,161,857.0 |
| 2022 | 290,278 | 3,466,423 | 837.4 | 527,917 | 2,833,335.2 |
| 2023 | 256,300 | 2,686,962 | 953.87 | 473,199 | 2,388,433.5 |
| *Has diagnosis code that indicates a range of BMI that classifies as obesity* | | | | | |
| 2010 | 25,472 | 2,703,075 | 94.23 | 34,923 | 2,373,531.9 |
| 2011 | 38,548 | 2,773,175 | 139 | 53,188 | 2,428,396.3 |
| 2012 | 52,063 | 2,951,528 | 176.39 | 73,135 | 2,490,365.9 |
| 2013 | 68,697 | 2,784,406 | 246.72 | 102,858 | 2,464,620.4 |
| 2014 | 94,632 | 2,808,974 | 336.89 | 160,496 | 2,470,138.4 |
| 2015 | 112,998 | 3,001,966 | 376.41 | 201,046 | 2,611,135.9 |
| 2016 | 128,749 | 3,375,095 | 381.47 | 240,272 | 2,737,711.1 |
| 2017 | 161,183 | 3,313,638 | 486.42 | 302,121 | 2,879,911.4 |
| 2018 | 188,686 | 3,485,601 | 541.33 | 357,038 | 3,023,795.9 |
| 2019 | 204,514 | 3,541,210 | 577.53 | 398,734 | 3,089,116.3 |
| 2020 | 196,171 | 3,706,081 | 529.32 | 387,783 | 3,084,807.1 |
| 2021 | 235,320 | 3,539,132 | 664.91 | 480,302 | 3,161,857.0 |
| 2022 | 230,251 | 3,466,423 | 664.23 | 441,483 | 2,833,335.2 |
| 2023 | 199,058 | 2,686,962 | 740.83 | 389,692 | 2,388,433.5 |
| *Has diagnosis code that indicates a range of BMI that classifies as overweight* | | | | | |
| 2010 | 4,450 | 2,703,075 | 16.46 | 4,966 | 2,373,531.9 |
| 2011 | 7,548 | 2,773,175 | 27.22 | 8,510 | 2,428,396.3 |
| 2012 | 10,315 | 2,951,528 | 34.95 | 11,857 | 2,490,365.9 |
| 2013 | 11,436 | 2,784,406 | 41.07 | 13,277 | 2,464,620.4 |
| 2014 | 13,719 | 2,808,974 | 48.84 | 16,106 | 2,470,138.4 |
| 2015 | 19,030 | 3,001,966 | 63.39 | 22,396 | 2,611,135.9 |
| 2016 | 22,949 | 3,375,095 | 68 | 28,162 | 2,737,711.1 |
| 2017 | 32,464 | 3,313,638 | 97.97 | 43,032 | 2,879,911.4 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2018 | 40,867 | 3,485,601 | 117.25 | 53,702 | 3,023,795.9 |
| 2019 | 33,662 | 3,541,210 | 95.06 | 46,215 | 3,089,116.3 |
| 2020 | 23,488 | 3,706,081 | 63.38 | 31,946 | 3,084,807.1 |
| 2021 | 28,542 | 3,539,132 | 80.65 | 38,844 | 3,161,857.0 |
| 2022 | 26,061 | 3,466,423 | 75.18 | 35,744 | 2,833,335.2 |
| 2023 | 26,102 | 2,686,962 | 97.14 | 35,818 | 2,388,433.5 |
| *Has non-missing value for height* | | | | | |
| 2010 | 1,173,290 | 2,703,075 | 4,340.58 | 2,421,526 | 2,373,531.9 |
| 2011 | 1,256,012 | 2,773,175 | 4,529.15 | 2,633,789 | 2,428,396.3 |
| 2012 | 1,314,943 | 2,951,528 | 4,455.13 | 2,845,742 | 2,490,365.9 |
| 2013 | 1,320,679 | 2,784,406 | 4,743.13 | 2,876,969 | 2,464,620.4 |
| 2014 | 1,303,674 | 2,808,974 | 4,641.10 | 2,784,934 | 2,470,138.4 |
| 2015 | 1,356,658 | 3,001,966 | 4,519.23 | 2,842,153 | 2,611,135.9 |
| 2016 | 1,390,240 | 3,375,095 | 4,119.11 | 2,858,781 | 2,737,711.1 |
| 2017 | 1,446,681 | 3,313,638 | 4,365.84 | 2,937,028 | 2,879,911.4 |
| 2018 | 1,545,820 | 3,485,601 | 4,434.87 | 3,411,928 | 3,023,795.9 |
| 2019 | 1,611,181 | 3,541,210 | 4,549.80 | 3,751,323 | 3,089,116.3 |
| 2020 | 1,183,488 | 3,706,081 | 3,193.37 | 2,206,272 | 3,084,807.1 |
| 2021 | 1,412,100 | 3,539,132 | 3,989.96 | 2,823,800 | 3,161,857.0 |
| 2022 | 1,368,230 | 3,466,423 | 3,947.09 | 2,463,974 | 2,833,335.2 |
| 2023 | 982,685 | 2,686,962 | 3,657.23 | 1,622,083 | 2,388,433.5 |
| *Has non-missing value for weight* | | | | | |
| 2010 | 1,524,900 | 2,703,075 | 5,641.35 | 4,966,765 | 2,373,531.9 |
| 2011 | 1,555,212 | 2,773,175 | 5,608.06 | 5,049,044 | 2,428,396.3 |
| 2012 | 1,588,958 | 2,951,528 | 5,383.51 | 5,240,339 | 2,490,365.9 |
| 2013 | 1,596,025 | 2,784,406 | 5,732.01 | 5,299,622 | 2,464,620.4 |
| 2014 | 1,593,722 | 2,808,974 | 5,673.68 | 5,234,593 | 2,470,138.4 |
| 2015 | 1,674,261 | 3,001,966 | 5,577.22 | 5,410,682 | 2,611,135.9 |
| 2016 | 1,726,639 | 3,375,095 | 5,115.82 | 5,508,583 | 2,737,711.1 |
| 2017 | 1,808,179 | 3,313,638 | 5,456.78 | 5,736,399 | 2,879,911.4 |
| 2018 | 1,909,236 | 3,485,601 | 5,477.49 | 6,215,562 | 3,023,795.9 |
| 2019 | 1,992,395 | 3,541,210 | 5,626.31 | 6,595,946 | 3,089,116.3 |
| 2020 | 1,566,031 | 3,706,081 | 4,225.57 | 3,868,488 | 3,084,807.1 |
| 2021 | 1,769,116 | 3,539,132 | 4,998.73 | 4,771,936 | 3,161,857.0 |
| 2022 | 1,738,350 | 3,466,423 | 5,014.82 | 4,565,987 | 2,833,335.2 |
| 2023 | 1,369,638 | 2,686,962 | 5,097.35 | 3,754,901 | 2,388,433.5 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| *Has non-missing values for both height and weight within +/- six months* | | | | | |
| 2010 | 924,428 | 1,983,040 | 4,661.67 | 3,277,111 | 1,729,450.4 |
| 2011 | 989,197 | 2,047,970 | 4,830.13 | 3,467,562 | 1,790,719.0 |
| 2012 | 1,034,199 | 2,171,051 | 4,763.59 | 3,695,137 | 1,843,442.9 |
| 2013 | 1,045,259 | 2,089,342 | 5,002.81 | 3,749,405 | 1,845,140.1 |
| 2014 | 1,035,370 | 2,111,947 | 4,902.44 | 3,683,233 | 1,861,498.4 |
| 2015 | 1,079,028 | 2,264,576 | 4,764.81 | 3,767,612 | 1,965,168.7 |
| 2016 | 1,112,319 | 2,520,294 | 4,413.45 | 3,836,755 | 2,070,646.7 |
| 2017 | 1,157,051 | 2,503,852 | 4,621.08 | 3,986,202 | 2,177,153.7 |
| 2018 | 1,227,705 | 2,629,062 | 4,669.75 | 4,347,955 | 2,264,201.9 |
| 2019 | 1,265,916 | 2,657,713 | 4,763.18 | 4,595,078 | 2,307,504.6 |
| 2020 | 949,292 | 2,780,415 | 3,414.21 | 2,612,268 | 2,334,271.2 |
| 2021 | 1,104,904 | 2,697,141 | 4,096.57 | 3,341,834 | 2,383,034.0 |
| 2022 | 872,283 | 2,620,926 | 3,328.15 | 2,381,488 | 1,869,736.5 |
| 2023 | 549,770 | 1,960,810 | 2,803.79 | 1,170,705 | 917,978.7 |
| *Has BMI calculated from vitals is in the obesity range* | | | | | |
| 2010 | 362,736 | 1,983,040 | 1,829.19 | 1,285,554 | 1,729,450.4 |
| 2011 | 385,893 | 2,047,970 | 1,884.27 | 1,360,312 | 1,790,719.0 |
| 2012 | 403,275 | 2,171,051 | 1,857.51 | 1,453,921 | 1,843,442.9 |
| 2013 | 410,777 | 2,089,342 | 1,966.06 | 1,485,809 | 1,845,140.1 |
| 2014 | 412,347 | 2,111,947 | 1,952.45 | 1,478,205 | 1,861,498.4 |
| 2015 | 433,110 | 2,264,576 | 1,912.54 | 1,525,159 | 1,965,168.7 |
| 2016 | 450,548 | 2,520,294 | 1,787.68 | 1,569,446 | 2,070,646.7 |
| 2017 | 470,723 | 2,503,852 | 1,880.00 | 1,637,330 | 2,177,153.7 |
| 2018 | 502,776 | 2,629,062 | 1,912.38 | 1,802,301 | 2,264,201.9 |
| 2019 | 520,765 | 2,657,713 | 1,959.45 | 1,915,135 | 2,307,504.6 |
| 2020 | 400,442 | 2,780,415 | 1,440.22 | 1,104,497 | 2,334,271.2 |
| 2021 | 465,747 | 2,697,141 | 1,726.82 | 1,417,632 | 2,383,034.0 |
| 2022 | 361,695 | 2,620,926 | 1,380.03 | 984,107 | 1,869,736.5 |
| 2023 | 227,230 | 1,960,810 | 1,158.86 | 485,032 | 917,978.7 |
| *Has BMI calculated from vitals is in the overweight range* | | | | | |
| 2010 | 359,927 | 1,983,040 | 1,815.03 | 1,058,339 | 1,729,450.4 |
| 2011 | 384,339 | 2,047,970 | 1,876.68 | 1,121,472 | 1,790,719.0 |
| 2012 | 402,414 | 2,171,051 | 1,853.54 | 1,195,684 | 1,843,442.9 |
| 2013 | 405,379 | 2,089,342 | 1,940.22 | 1,209,216 | 1,845,140.1 |
| 2014 | 399,508 | 2,111,947 | 1,891.66 | 1,180,920 | 1,861,498.4 |

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2015 | 412,480 | 2,264,576 | 1,821.44 | 1,201,622 | 1,965,168.7 |
| 2016 | 425,024 | 2,520,294 | 1,686.41 | 1,225,035 | 2,070,646.7 |
| 2017 | 441,282 | 2,503,852 | 1,762.41 | 1,270,753 | 2,177,153.7 |
| 2018 | 468,371 | 2,629,062 | 1,781.51 | 1,380,187 | 2,264,201.9 |
| 2019 | 483,707 | 2,657,713 | 1,820.01 | 1,453,832 | 2,307,504.6 |
| 2020 | 350,009 | 2,780,415 | 1,258.84 | 826,404 | 2,334,271.2 |
| 2021 | 408,946 | 2,697,141 | 1,516.22 | 1,046,974 | 2,383,034.0 |
| 2022 | 315,840 | 2,620,926 | 1,205.07 | 744,635 | 1,869,736.5 |
| 2023 | 191,543 | 1,960,810 | 976.86 | 367,276 | 917,978.7 |
| *Has non-missing value for diastolic blood pressure* | | | | | |
| 2010 | 1,507,305 | 2,703,075 | 5,576.26 | 5,960,898 | 2,373,531.9 |
| 2011 | 1,544,583 | 2,773,175 | 5,569.73 | 6,119,191 | 2,428,396.3 |
| 2012 | 1,587,312 | 2,951,528 | 5,377.93 | 6,343,186 | 2,490,365.9 |
| 2013 | 1,596,820 | 2,784,406 | 5,734.87 | 6,442,225 | 2,464,620.4 |
| 2014 | 1,596,846 | 2,808,974 | 5,684.80 | 6,378,023 | 2,470,138.4 |
| 2015 | 1,683,306 | 3,001,966 | 5,607.35 | 6,659,004 | 2,611,135.9 |
| 2016 | 1,739,893 | 3,375,095 | 5,155.09 | 6,871,263 | 2,737,711.1 |
| 2017 | 1,828,071 | 3,313,638 | 5,516.81 | 7,232,675 | 2,879,911.4 |
| 2018 | 1,931,430 | 3,485,601 | 5,541.17 | 7,720,518 | 3,023,795.9 |
| 2019 | 2,009,670 | 3,541,210 | 5,675.09 | 8,039,582 | 3,089,116.3 |
| 2020 | 1,616,905 | 3,706,081 | 4,362.84 | 4,934,092 | 3,084,807.1 |
| 2021 | 1,804,352 | 3,539,132 | 5,098.29 | 5,993,655 | 3,161,857.0 |
| 2022 | 1,780,254 | 3,466,423 | 5,135.71 | 5,785,282 | 2,833,335.2 |
| 2023 | 1,404,668 | 2,686,962 | 5,227.72 | 4,884,312 | 2,388,433.5 |
| *Has non-missing value for systolic blood pressure* | | | | | |
| 2010 | 1,507,375 | 2,703,075 | 5,576.52 | 5,961,441 | 2,373,531.9 |
| 2011 | 1,544,625 | 2,773,175 | 5,569.88 | 6,119,569 | 2,428,396.3 |
| 2012 | 1,587,328 | 2,951,528 | 5,377.99 | 6,343,447 | 2,490,365.9 |
| 2013 | 1,596,842 | 2,784,406 | 5,734.95 | 6,442,523 | 2,464,620.4 |
| 2014 | 1,596,865 | 2,808,974 | 5,684.87 | 6,378,281 | 2,470,138.4 |
| 2015 | 1,683,320 | 3,001,966 | 5,607.39 | 6,659,293 | 2,611,135.9 |
| 2016 | 1,739,926 | 3,375,095 | 5,155.19 | 6,871,677 | 2,737,711.1 |
| 2017 | 1,828,097 | 3,313,638 | 5,516.89 | 7,233,206 | 2,879,911.4 |
| 2018 | 1,931,461 | 3,485,601 | 5,541.26 | 7,721,091 | 3,023,795.9 |
| 2019 | 2,009,714 | 3,541,210 | 5,675.22 | 8,040,300 | 3,089,116.3 |
| 2020 | 1,616,933 | 3,706,081 | 4,362.92 | 4,934,487 | 3,084,807.1 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2021 | 1,804,390 | 3,539,132 | 5,098.40 | 5,994,142 | 3,161,857.0 |
| 2022 | 1,780,301 | 3,466,423 | 5,135.84 | 5,785,789 | 2,833,335.2 |
| 2023 | 1,404,699 | 2,686,962 | 5,227.83 | 4,884,834 | 2,388,433.5 |

[1]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.

[2]Unlike earlier sections describing incident and prevalent capture of confounding conditions from diagnosis, procedure, and drug codes, this section captures additional prevalent conditions from demographic data (race and imputed race), diagnosis codes (BMI categories), and vitals data (remaining variables).

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| **Incident Capture (365-Day Washout) of Confounding Conditions** | | | | | |
| *Incident obesity* | | | | | |
| *0-17 years* | | | | | |
| 2010 | 10,689 | 592,085 | 180.53 | 10,689 | 484,318.2 |
| 2011 | 13,444 | 588,967 | 228.26 | 13,444 | 478,196.5 |
| 2012 | 13,582 | 606,694 | 223.87 | 13,582 | 467,686.6 |
| 2013 | 13,195 | 549,390 | 240.18 | 13,195 | 449,352.5 |
| 2014 | 13,739 | 546,827 | 251.25 | 13,739 | 444,377.1 |
| 2015 | 13,673 | 569,442 | 240.11 | 13,673 | 458,570.6 |
| 2016 | 14,417 | 620,837 | 232.22 | 14,417 | 470,409.4 |
| 2017 | 15,772 | 607,475 | 259.63 | 15,772 | 490,085.6 |
| 2018 | 21,165 | 641,920 | 329.71 | 21,165 | 510,741.8 |
| 2019 | 22,642 | 645,202 | 350.93 | 22,642 | 520,834.8 |
| 2020 | 21,668 | 683,040 | 317.23 | 21,668 | 528,524.6 |
| 2021 | 30,931 | 656,481 | 471.16 | 30,931 | 545,449.3 |
| 2022 | 19,811 | 624,363 | 317.3 | 19,811 | 483,758.2 |
| 2023 | 12,716 | 486,174 | 261.55 | 12,716 | 405,725.4 |
| *18-43 years* | | | | | |
| 2010 | 27,887 | 889,495 | 313.51 | 27,887 | 691,133.0 |
| 2011 | 28,958 | 916,665 | 315.91 | 28,958 | 713,826.5 |
| 2012 | 31,725 | 989,810 | 320.52 | 31,725 | 740,684.7 |
| 2013 | 32,830 | 920,601 | 356.61 | 32,830 | 724,564.9 |
| 2014 | 34,422 | 920,241 | 374.05 | 34,422 | 716,049.6 |
| 2015 | 37,938 | 993,828 | 381.74 | 37,938 | 761,304.4 |
| 2016 | 40,261 | 1,138,539 | 353.62 | 40,261 | 805,057.3 |
| 2017 | 46,637 | 1,114,174 | 418.58 | 46,637 | 852,154.2 |
| 2018 | 51,871 | 1,176,358 | 440.95 | 51,871 | 897,666.3 |
| 2019 | 52,310 | 1,202,392 | 435.05 | 52,310 | 921,212.2 |
| 2020 | 48,320 | 1,278,188 | 378.04 | 48,320 | 930,617.3 |
| 2021 | 60,612 | 1,215,036 | 498.85 | 60,612 | 959,195.0 |
| 2022 | 53,471 | 1,171,173 | 456.56 | 53,471 | 849,646.7 |
| 2023 | 49,288 | 911,455 | 540.76 | 49,288 | 710,422.9 |
| *44-64 years* | | | | | |
| 2010 | 48,630 | 901,962 | 539.16 | 48,630 | 751,341.0 |
| 2011 | 50,182 | 921,833 | 544.37 | 50,182 | 761,314.2 |
| 2012 | 53,670 | 952,012 | 563.75 | 53,670 | 762,396.5 |

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2013 | 57,232 | 896,465 | 638.42 | 57,232 | 740,672.6 |
| 2014 | 58,766 | 885,910 | 663.34 | 58,766 | 722,463.1 |
| 2015 | 63,195 | 948,000 | 666.61 | 63,195 | 764,415.2 |
| 2016 | 67,110 | 1,061,494 | 632.22 | 67,110 | 795,230.1 |
| 2017 | 75,466 | 1,029,673 | 732.91 | 75,466 | 826,595.3 |
| 2018 | 81,731 | 1,064,724 | 767.63 | 81,731 | 849,315.6 |
| 2019 | 79,766 | 1,075,053 | 741.97 | 79,766 | 860,784.9 |
| 2020 | 71,331 | 1,101,424 | 647.63 | 71,331 | 846,080.4 |
| 2021 | 83,496 | 1,031,099 | 809.78 | 83,496 | 835,955.4 |
| 2022 | 75,610 | 989,332 | 764.25 | 75,610 | 736,388.6 |
| 2023 | 67,714 | 757,127 | 894.35 | 67,714 | 605,259.3 |
| *≥ 65 years* | | | | | |
| 2010 | 16,934 | 342,156 | 494.92 | 16,934 | 299,768.7 |
| 2011 | 19,759 | 367,796 | 537.23 | 19,759 | 317,464.6 |
| 2012 | 22,890 | 412,031 | 555.54 | 22,890 | 346,454.4 |
| 2013 | 31,230 | 427,706 | 730.17 | 31,230 | 366,425.1 |
| 2014 | 32,148 | 446,071 | 720.69 | 32,148 | 380,905.1 |
| 2015 | 34,220 | 463,964 | 737.56 | 34,220 | 394,108.8 |
| 2016 | 36,412 | 507,594 | 717.34 | 36,412 | 418,115.0 |
| 2017 | 40,711 | 523,262 | 778.02 | 40,711 | 441,009.1 |
| 2018 | 44,598 | 548,751 | 812.72 | 44,598 | 462,279.8 |
| 2019 | 45,940 | 550,479 | 834.55 | 45,940 | 462,053.6 |
| 2020 | 43,100 | 574,684 | 749.98 | 43,100 | 474,432.8 |
| 2021 | 47,332 | 576,018 | 821.71 | 47,332 | 488,034.5 |
| 2022 | 45,185 | 584,081 | 773.61 | 45,185 | 452,105.7 |
| 2023 | 41,365 | 470,816 | 878.58 | 41,365 | 396,767.6 |
| *Incident overweight* | | | | | |
| *0-17 years* | | | | | |
| 2010 | 9,292 | 593,688 | 156.51 | 9,292 | 486,426.9 |
| 2011 | 10,699 | 591,413 | 180.91 | 10,699 | 481,478.7 |
| 2012 | 10,600 | 610,356 | 173.67 | 10,600 | 472,407.7 |
| 2013 | 10,773 | 552,632 | 194.94 | 10,773 | 454,042.1 |
| 2014 | 10,568 | 550,184 | 192.08 | 10,568 | 449,386.7 |
| 2015 | 9,797 | 573,229 | 170.91 | 9,797 | 464,219.0 |
| 2016 | 10,468 | 625,175 | 167.44 | 10,468 | 476,566.2 |
| 2017 | 11,421 | 611,906 | 186.65 | 11,421 | 496,904.2 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2018 | 18,522 | 647,128 | 286.22 | 18,522 | 517,255.6 |
| 2019 | 19,115 | 650,529 | 293.84 | 19,115 | 527,533.0 |
| 2020 | 16,803 | 688,206 | 244.16 | 16,803 | 535,661.2 |
| 2021 | 21,896 | 662,848 | 330.33 | 21,896 | 557,071.8 |
| 2022 | 13,864 | 631,597 | 219.51 | 13,864 | 494,663.6 |
| 2023 | 7,356 | 490,236 | 150.05 | 7,356 | 413,272.2 |
| *18-43 years* | | | | | |
| 2010 | 5,362 | 907,806 | 59.07 | 5,362 | 723,762.8 |
| 2011 | 5,839 | 935,776 | 62.4 | 5,839 | 747,570.0 |
| 2012 | 6,156 | 1,012,949 | 60.77 | 6,156 | 777,275.9 |
| 2013 | 6,198 | 941,468 | 65.83 | 6,198 | 761,977.8 |
| 2014 | 6,324 | 944,150 | 66.98 | 6,324 | 756,451.7 |
| 2015 | 7,322 | 1,021,864 | 71.65 | 7,322 | 807,279.2 |
| 2016 | 7,906 | 1,172,843 | 67.41 | 7,906 | 854,282.4 |
| 2017 | 10,267 | 1,146,950 | 89.52 | 10,267 | 905,873.3 |
| 2018 | 10,453 | 1,215,656 | 85.99 | 10,453 | 959,978.4 |
| 2019 | 10,644 | 1,244,728 | 85.51 | 10,644 | 988,504.2 |
| 2020 | 7,447 | 1,322,638 | 56.3 | 7,447 | 995,566.6 |
| 2021 | 9,377 | 1,259,429 | 74.45 | 9,377 | 1,034,104.7 |
| 2022 | 8,383 | 1,221,009 | 68.66 | 8,383 | 920,136.4 |
| 2023 | 8,652 | 950,139 | 91.06 | 8,652 | 772,707.2 |
| *44-64 years* | | | | | |
| 2010 | 8,200 | 932,498 | 87.94 | 8,200 | 812,609.4 |
| 2011 | 9,072 | 952,980 | 95.2 | 9,072 | 824,335.6 |
| 2012 | 9,816 | 988,223 | 99.33 | 9,816 | 828,340.1 |
| 2013 | 9,985 | 931,686 | 107.17 | 9,985 | 808,951.0 |
| 2014 | 10,433 | 927,698 | 112.46 | 10,433 | 798,010.2 |
| 2015 | 12,440 | 997,191 | 124.75 | 12,440 | 849,281.1 |
| 2016 | 13,560 | 1,118,264 | 121.26 | 13,560 | 884,504.2 |
| 2017 | 17,174 | 1,084,234 | 158.4 | 17,174 | 921,359.8 |
| 2018 | 17,191 | 1,127,132 | 152.52 | 17,191 | 954,626.8 |
| 2019 | 17,064 | 1,142,444 | 149.36 | 17,064 | 972,201.4 |
| 2020 | 12,247 | 1,168,226 | 104.83 | 12,247 | 949,566.7 |
| 2021 | 14,447 | 1,096,510 | 131.75 | 14,447 | 947,026.5 |
| 2022 | 13,020 | 1,062,038 | 122.59 | 13,020 | 841,497.2 |
| 2023 | 13,317 | 813,578 | 163.68 | 13,317 | 697,761.0 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| ≥ 65 years | | | | | |
| 2010 | 2,636 | 353,982 | 74.47 | 2,636 | 322,743.6 |
| 2011 | 3,606 | 381,859 | 94.43 | 3,606 | 343,983.8 |
| 2012 | 4,632 | 430,052 | 107.71 | 4,632 | 377,543.8 |
| 2013 | 5,172 | 448,497 | 115.32 | 5,172 | 404,251.8 |
| 2014 | 6,708 | 476,400 | 140.81 | 6,708 | 429,191.8 |
| 2015 | 8,829 | 499,638 | 176.71 | 8,829 | 448,674.4 |
| 2016 | 8,914 | 546,679 | 163.06 | 8,914 | 476,391.1 |
| 2017 | 11,925 | 563,154 | 211.75 | 11,925 | 503,007.6 |
| 2018 | 11,854 | 590,765 | 200.66 | 11,854 | 528,031.9 |
| 2019 | 11,372 | 596,831 | 190.54 | 11,372 | 532,650.9 |
| 2020 | 8,872 | 621,795 | 142.68 | 8,872 | 545,999.7 |
| 2021 | 10,825 | 625,325 | 173.11 | 10,825 | 563,549.0 |
| 2022 | 10,599 | 637,378 | 166.29 | 10,599 | 523,541.6 |
| 2023 | 11,214 | 512,669 | 218.74 | 11,214 | 460,618.8 |
| Incident smoking | | | | | |
| 0-17 years | | | | | |
| 2010 | 1,423 | 595,505 | 23.9 | 1,423 | 494,395.6 |
| 2011 | 1,364 | 593,586 | 22.98 | 1,364 | 491,163.7 |
| 2012 | 1,186 | 613,446 | 19.33 | 1,186 | 483,098.2 |
| 2013 | 957 | 555,154 | 17.24 | 957 | 464,819.3 |
| 2014 | 871 | 552,977 | 15.75 | 871 | 460,293.6 |
| 2015 | 1,103 | 576,025 | 19.15 | 1,103 | 474,909.6 |
| 2016 | 1,744 | 627,995 | 27.77 | 1,744 | 486,483.3 |
| 2017 | 2,062 | 614,429 | 33.56 | 2,062 | 506,913.3 |
| 2018 | 2,546 | 650,443 | 39.14 | 2,546 | 530,924.3 |
| 2019 | 3,386 | 655,498 | 51.66 | 3,386 | 545,417.3 |
| 2020 | 2,514 | 691,895 | 36.33 | 2,514 | 550,591.5 |
| 2021 | 2,993 | 666,742 | 44.89 | 2,993 | 576,864.7 |
| 2022 | 2,870 | 638,793 | 44.93 | 2,870 | 508,193.3 |
| 2023 | 2,422 | 490,937 | 49.33 | 2,422 | 418,920.5 |
| 18-43 years | | | | | |
| 2010 | 31,395 | 882,797 | 355.63 | 31,395 | 684,601.0 |
| 2011 | 34,023 | 910,067 | 373.85 | 34,023 | 706,772.7 |
| 2012 | 34,464 | 981,967 | 350.97 | 34,464 | 734,229.2 |
| 2013 | 33,585 | 914,805 | 367.13 | 33,585 | 720,040.8 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2014 | 34,656 | 917,071 | 377.9 | 34,656 | 714,701.6 |
| 2015 | 36,079 | 990,473 | 364.26 | 36,079 | 761,564.1 |
| 2016 | 36,816 | 1,137,151 | 323.76 | 36,816 | 808,306.7 |
| 2017 | 39,614 | 1,114,768 | 355.36 | 39,614 | 858,612.7 |
| 2018 | 43,196 | 1,180,780 | 365.83 | 43,196 | 909,407.2 |
| 2019 | 44,291 | 1,209,011 | 366.34 | 44,291 | 935,116.5 |
| 2020 | 35,963 | 1,286,336 | 279.58 | 35,963 | 944,706.3 |
| 2021 | 40,916 | 1,230,268 | 332.58 | 40,916 | 985,483.4 |
| 2022 | 35,028 | 1,193,190 | 293.57 | 35,028 | 875,741.4 |
| 2023 | 29,855 | 929,045 | 321.35 | 29,855 | 737,508.3 |
| *44-64 years* | | | | | |
| 2010 | 48,774 | 895,047 | 544.93 | 48,774 | 747,050.8 |
| 2011 | 49,117 | 913,313 | 537.79 | 49,117 | 757,046.8 |
| 2012 | 49,263 | 944,650 | 521.49 | 49,263 | 760,807.9 |
| 2013 | 50,022 | 891,708 | 560.97 | 50,022 | 741,620.1 |
| 2014 | 50,088 | 887,050 | 564.66 | 50,088 | 730,515.8 |
| 2015 | 54,413 | 952,004 | 571.56 | 54,413 | 777,097.8 |
| 2016 | 57,374 | 1,064,471 | 538.99 | 57,374 | 808,659.1 |
| 2017 | 61,608 | 1,033,820 | 595.93 | 61,608 | 842,086.7 |
| 2018 | 64,923 | 1,073,139 | 604.98 | 64,923 | 871,738.8 |
| 2019 | 64,337 | 1,085,911 | 592.47 | 64,337 | 885,789.5 |
| 2020 | 52,279 | 1,113,654 | 469.44 | 52,279 | 869,589.6 |
| 2021 | 59,047 | 1,051,258 | 561.68 | 59,047 | 872,304.0 |
| 2022 | 52,625 | 1,015,708 | 518.11 | 52,625 | 771,388.8 |
| 2023 | 46,039 | 777,327 | 592.27 | 46,039 | 638,446.0 |
| *≥ 65 years* | | | | | |
| 2010 | 22,866 | 340,548 | 671.45 | 22,866 | 294,057.8 |
| 2011 | 25,441 | 366,453 | 694.25 | 25,441 | 312,500.0 |
| 2012 | 29,579 | 411,146 | 719.43 | 29,579 | 341,721.2 |
| 2013 | 33,719 | 428,281 | 787.31 | 33,719 | 363,440.6 |
| 2014 | 38,411 | 453,850 | 846.34 | 38,411 | 383,916.1 |
| 2015 | 42,502 | 474,054 | 896.56 | 42,502 | 398,690.3 |
| 2016 | 48,495 | 515,423 | 940.88 | 48,495 | 419,620.3 |
| 2017 | 53,191 | 528,806 | 1,005.87 | 53,191 | 438,843.6 |
| 2018 | 55,850 | 552,984 | 1,009.97 | 55,850 | 458,666.3 |
| 2019 | 56,571 | 557,166 | 1,015.33 | 56,571 | 460,638.2 |

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2020 | 48,504 | 583,085 | 831.85 | 48,504 | 475,848.5 |
| 2021 | 56,100 | 590,965 | 949.29 | 56,100 | 495,747.0 |
| 2022 | 53,145 | 598,578 | 887.85 | 53,145 | 456,918.4 |
| 2023 | 48,403 | 478,750 | 1,011.03 | 48,403 | 397,986.8 |

*Incident alcohol abuse or dependence*

*0-17 years*

| | | | | | |
|---|---|---|---|---|---|
| 2010 | 1,163 | 595,579 | 19.53 | 1,163 | 494,390.2 |
| 2011 | 1,077 | 593,698 | 18.14 | 1,077 | 491,227.7 |
| 2012 | 1,026 | 613,539 | 16.72 | 1,026 | 483,132.3 |
| 2013 | 816 | 555,188 | 14.7 | 816 | 464,807.3 |
| 2014 | 782 | 553,038 | 14.14 | 782 | 460,283.9 |
| 2015 | 723 | 576,095 | 12.55 | 723 | 474,940.8 |
| 2016 | 763 | 628,533 | 12.14 | 763 | 487,193.2 |
| 2017 | 723 | 615,069 | 11.75 | 723 | 508,200.1 |
| 2018 | 724 | 651,236 | 11.12 | 724 | 532,661.3 |
| 2019 | 789 | 656,596 | 12.02 | 789 | 547,784.6 |
| 2020 | 599 | 693,471 | 8.64 | 599 | 553,697.3 |
| 2021 | 564 | 667,840 | 8.45 | 564 | 579,520.9 |
| 2022 | 568 | 640,075 | 8.87 | 568 | 511,198.6 |
| 2023 | 561 | 492,031 | 11.4 | 561 | 421,534.1 |

*18-43 years*

| | | | | | |
|---|---|---|---|---|---|
| 2010 | 8,043 | 903,675 | 89 | 8,043 | 718,957.7 |
| 2011 | 8,367 | 931,922 | 89.78 | 8,367 | 743,142.0 |
| 2012 | 9,015 | 1,008,344 | 89.4 | 9,015 | 772,656.6 |
| 2013 | 8,866 | 937,301 | 94.59 | 8,866 | 757,140.1 |
| 2014 | 8,396 | 940,146 | 89.31 | 8,396 | 752,110.7 |
| 2015 | 8,624 | 1,017,758 | 84.74 | 8,624 | 803,287.8 |
| 2016 | 9,301 | 1,169,243 | 79.55 | 9,301 | 851,464.6 |
| 2017 | 10,387 | 1,143,537 | 90.83 | 10,387 | 903,055.9 |
| 2018 | 11,248 | 1,211,932 | 92.81 | 11,248 | 957,493.9 |
| 2019 | 11,664 | 1,240,457 | 94.03 | 11,664 | 985,172.3 |
| 2020 | 10,476 | 1,316,899 | 79.55 | 10,476 | 990,483.2 |
| 2021 | 11,702 | 1,253,147 | 93.38 | 11,702 | 1,027,451.2 |
| 2022 | 10,637 | 1,214,978 | 87.55 | 10,637 | 913,649.3 |
| 2023 | 10,500 | 943,864 | 111.24 | 10,500 | 766,482.7 |

*44-64 years*

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2010 | 9,190 | 927,649 | 99.07 | 9,190 | 808,366.7 |
| 2011 | 9,275 | 948,459 | 97.79 | 9,275 | 820,848.8 |
| 2012 | 9,763 | 983,282 | 99.29 | 9,763 | 825,220.4 |
| 2013 | 9,755 | 926,636 | 105.27 | 9,755 | 805,604.8 |
| 2014 | 9,563 | 922,724 | 103.64 | 9,563 | 794,822.9 |
| 2015 | 9,840 | 992,234 | 99.17 | 9,840 | 847,252.6 |
| 2016 | 9,898 | 1,114,624 | 88.8 | 9,898 | 884,617.0 |
| 2017 | 10,281 | 1,080,747 | 95.13 | 10,281 | 923,559.5 |
| 2018 | 11,147 | 1,124,390 | 99.14 | 11,147 | 958,772.8 |
| 2019 | 11,324 | 1,138,994 | 99.42 | 11,324 | 975,182.5 |
| 2020 | 10,265 | 1,163,488 | 88.23 | 10,265 | 949,695.6 |
| 2021 | 11,565 | 1,089,939 | 106.11 | 11,565 | 944,533.0 |
| 2022 | 11,002 | 1,055,903 | 104.2 | 11,002 | 838,457.3 |
| 2023 | 11,119 | 807,554 | 137.69 | 11,119 | 694,725.2 |
| *≥ 65 years* | | | | | |
| 2010 | 3,130 | 352,518 | 88.79 | 3,130 | 321,276.4 |
| 2011 | 3,429 | 380,117 | 90.21 | 3,429 | 342,736.6 |
| 2012 | 4,069 | 428,206 | 95.02 | 4,069 | 376,758.5 |
| 2013 | 4,343 | 446,118 | 97.35 | 4,343 | 403,194.1 |
| 2014 | 4,754 | 474,032 | 100.29 | 4,754 | 428,712.3 |
| 2015 | 4,811 | 497,550 | 96.69 | 4,811 | 449,816.5 |
| 2016 | 5,169 | 545,340 | 94.78 | 5,169 | 478,715.7 |
| 2017 | 5,422 | 562,113 | 96.46 | 5,422 | 507,035.0 |
| 2018 | 5,938 | 589,995 | 100.64 | 5,938 | 533,298.6 |
| 2019 | 6,136 | 595,673 | 103.01 | 6,136 | 537,076.0 |
| 2020 | 6,161 | 619,701 | 99.42 | 6,161 | 547,907.2 |
| 2021 | 6,374 | 621,990 | 102.48 | 6,374 | 564,303.1 |
| 2022 | 6,320 | 634,682 | 99.58 | 6,320 | 524,743.7 |
| 2023 | 7,184 | 509,584 | 140.98 | 7,184 | 462,084.8 |
| *Incident drug abuse or dependence* | | | | | |
| *0-17 years* | | | | | |
| 2010 | 2,147 | 595,134 | 36.08 | 2,147 | 493,536.7 |
| 2011 | 2,201 | 592,966 | 37.12 | 2,201 | 490,042.5 |
| 2012 | 2,183 | 612,669 | 35.63 | 2,183 | 481,888.1 |
| 2013 | 2,009 | 554,384 | 36.24 | 2,009 | 463,525.2 |
| 2014 | 1,825 | 552,247 | 33.05 | 1,825 | 459,077.7 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2015 | 1,614 | 575,352 | 28.05 | 1,614 | 473,835.1 |
| 2016 | 1,185 | 628,030 | 18.87 | 1,185 | 486,513.2 |
| 2017 | 1,301 | 614,750 | 21.16 | 1,301 | 507,715.7 |
| 2018 | 1,395 | 650,816 | 21.43 | 1,395 | 532,063.5 |
| 2019 | 1,458 | 656,174 | 22.22 | 1,458 | 547,107.1 |
| 2020 | 1,096 | 693,062 | 15.81 | 1,096 | 553,107.9 |
| 2021 | 1,156 | 667,628 | 17.32 | 1,156 | 579,053.1 |
| 2022 | 1,188 | 639,744 | 18.57 | 1,188 | 510,640.3 |
| 2023 | 1,049 | 491,782 | 21.33 | 1,049 | 421,013.9 |
| *18-43 years* | | | | | |
| 2010 | 9,819 | 904,010 | 108.62 | 9,819 | 718,858.7 |
| 2011 | 13,322 | 930,212 | 143.21 | 13,322 | 739,348.1 |
| 2012 | 13,613 | 1,003,841 | 135.61 | 13,613 | 765,751.3 |
| 2013 | 13,771 | 932,282 | 147.71 | 13,771 | 749,430.4 |
| 2014 | 13,881 | 934,428 | 148.55 | 13,881 | 743,387.3 |
| 2015 | 12,662 | 1,011,738 | 125.15 | 12,662 | 793,723.4 |
| 2016 | 7,025 | 1,169,767 | 60.05 | 7,025 | 849,193.1 |
| 2017 | 8,216 | 1,145,341 | 71.73 | 8,216 | 906,196.1 |
| 2018 | 9,649 | 1,214,224 | 79.47 | 9,649 | 960,587.0 |
| 2019 | 9,904 | 1,242,702 | 79.7 | 9,904 | 988,178.1 |
| 2020 | 9,331 | 1,319,410 | 70.72 | 9,331 | 993,254.0 |
| 2021 | 10,936 | 1,255,656 | 87.09 | 10,936 | 1,029,594.7 |
| 2022 | 9,891 | 1,217,686 | 81.23 | 9,891 | 915,989.0 |
| 2023 | 8,769 | 946,878 | 92.61 | 8,769 | 769,512.7 |
| *44-64 years* | | | | | |
| 2010 | 11,672 | 930,970 | 125.37 | 11,672 | 811,160.3 |
| 2011 | 14,728 | 948,412 | 155.29 | 14,728 | 817,481.9 |
| 2012 | 12,508 | 980,819 | 127.53 | 12,508 | 819,698.3 |
| 2013 | 12,770 | 924,172 | 138.18 | 12,770 | 800,614.7 |
| 2014 | 12,513 | 919,662 | 136.06 | 12,513 | 789,197.5 |
| 2015 | 11,756 | 989,282 | 118.83 | 11,756 | 841,183.1 |
| 2016 | 4,714 | 1,120,177 | 42.08 | 4,714 | 887,207.5 |
| 2017 | 5,305 | 1,087,026 | 48.8 | 5,305 | 932,776.2 |
| 2018 | 5,935 | 1,131,133 | 52.47 | 5,935 | 968,396.6 |
| 2019 | 6,289 | 1,146,105 | 54.87 | 6,289 | 985,031.8 |
| 2020 | 5,434 | 1,170,893 | 46.41 | 5,434 | 959,150.6 |

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2021 | 6,152 | 1,097,371 | 56.06 | 6,152 | 954,730.5 |
| 2022 | 6,005 | 1,063,678 | 56.46 | 6,005 | 848,506.2 |
| 2023 | 5,664 | 814,571 | 69.53 | 5,664 | 704,591.0 |
| *≥ 65 years* | | | | | |
| 2010 | 3,183 | 353,988 | 89.92 | 3,183 | 323,052.9 |
| 2011 | 4,361 | 380,982 | 114.47 | 4,361 | 342,972.0 |
| 2012 | 3,984 | 428,454 | 92.99 | 3,984 | 376,527.4 |
| 2013 | 4,124 | 446,570 | 92.35 | 4,124 | 403,557.4 |
| 2014 | 4,457 | 474,535 | 93.92 | 4,457 | 429,121.8 |
| 2015 | 4,208 | 497,911 | 84.51 | 4,208 | 450,106.5 |
| 2016 | 1,919 | 548,704 | 34.97 | 1,919 | 482,012.8 |
| 2017 | 2,270 | 565,746 | 40.12 | 2,270 | 512,821.9 |
| 2018 | 2,533 | 593,840 | 42.65 | 2,533 | 539,329.8 |
| 2019 | 2,679 | 599,802 | 44.66 | 2,679 | 543,421.1 |
| 2020 | 2,490 | 624,006 | 39.9 | 2,490 | 554,278.1 |
| 2021 | 2,765 | 626,769 | 44.12 | 2,765 | 571,367.4 |
| 2022 | 2,880 | 639,567 | 45.03 | 2,880 | 531,512.4 |
| 2023 | 3,038 | 514,104 | 59.09 | 3,038 | 468,913.4 |

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

*0-17 years*

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2010 | ***** | 596,384 | ***** | ***** | 495,686.0 |
| 2011 | ***** | 594,387 | ***** | ***** | 492,378.1 |
| 2012 | ***** | 614,251 | ***** | ***** | 484,203.9 |
| 2013 | ***** | 555,783 | ***** | ***** | 465,736.0 |
| 2014 | ***** | 553,539 | ***** | ***** | 461,119.1 |
| 2015 | 13 | 576,588 | 0.23 | 13 | 475,721.2 |
| 2016 | 13 | 629,005 | 0.21 | 13 | 487,945.7 |
| 2017 | ***** | 615,530 | ***** | ***** | 508,965.8 |
| 2018 | 19 | 651,713 | 0.29 | 19 | 533,432.2 |
| 2019 | ***** | 657,034 | ***** | ***** | 548,592.6 |
| 2020 | ***** | 693,934 | ***** | ***** | 554,419.8 |
| 2021 | 13 | 668,208 | 0.19 | 13 | 580,165.5 |
| 2022 | 14 | 640,430 | 0.22 | 14 | 511,806.8 |
| 2023 | 23 | 492,345 | 0.47 | 23 | 422,116.0 |

*18-43 years*

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2010 | 210 | 909,867 | 2.31 | 210 | 729,613.6 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2011 | 189 | 937,881 | 2.02 | 189 | 753,752.9 |
| 2012 | 209 | 1,015,639 | 2.06 | 209 | 784,139.8 |
| 2013 | 201 | 943,719 | 2.13 | 201 | 768,671.5 |
| 2014 | 268 | 946,595 | 2.83 | 268 | 763,331.5 |
| 2015 | 247 | 1,024,713 | 2.41 | 247 | 814,900.9 |
| 2016 | 261 | 1,177,109 | 2.22 | 261 | 862,990.8 |
| 2017 | 298 | 1,150,983 | 2.59 | 298 | 916,110.7 |
| 2018 | 317 | 1,220,854 | 2.6 | 317 | 972,319.9 |
| 2019 | 299 | 1,249,808 | 2.39 | 299 | 1,000,885.3 |
| 2020 | 291 | 1,327,492 | 2.19 | 291 | 1,005,980.7 |
| 2021 | 298 | 1,262,974 | 2.36 | 298 | 1,043,934.8 |
| 2022 | 272 | 1,225,362 | 2.22 | 272 | 929,581.4 |
| 2023 | 245 | 953,106 | 2.57 | 245 | 781,367.8 |
| *44-64 years* | | | | | |
| 2010 | 5,519 | 930,695 | 59.3 | 5,519 | 813,747.9 |
| 2011 | 5,155 | 951,358 | 54.19 | 5,155 | 826,343.3 |
| 2012 | 5,051 | 987,244 | 51.16 | 5,051 | 831,740.3 |
| 2013 | 5,101 | 930,764 | 54.8 | 5,101 | 812,845.0 |
| 2014 | 5,865 | 926,813 | 63.28 | 5,865 | 801,463.2 |
| 2015 | 5,722 | 996,245 | 57.44 | 5,722 | 853,976.9 |
| 2016 | 5,926 | 1,117,981 | 53.01 | 5,926 | 890,467.4 |
| 2017 | 6,253 | 1,083,947 | 57.69 | 6,253 | 929,357.6 |
| 2018 | 6,539 | 1,128,258 | 57.96 | 6,539 | 965,267.1 |
| 2019 | 6,457 | 1,142,996 | 56.49 | 6,457 | 982,294.0 |
| 2020 | 5,735 | 1,168,451 | 49.08 | 5,735 | 956,844.8 |
| 2021 | 5,660 | 1,095,647 | 51.66 | 5,660 | 953,358.4 |
| 2022 | 5,087 | 1,062,306 | 47.89 | 5,087 | 848,279.1 |
| 2023 | 4,323 | 813,860 | 53.12 | 4,323 | 704,973.6 |
| *≥ 65 years* | | | | | |
| 2010 | 10,631 | 345,586 | 307.62 | 10,631 | 308,252.4 |
| 2011 | 11,156 | 373,116 | 299 | 11,156 | 329,399.8 |
| 2012 | 12,052 | 420,762 | 286.43 | 12,052 | 363,092.5 |
| 2013 | 12,749 | 438,742 | 290.58 | 12,749 | 389,407.0 |
| 2014 | 14,882 | 465,540 | 319.67 | 14,882 | 412,925.1 |
| 2015 | 14,393 | 487,542 | 295.22 | 14,393 | 432,848.4 |
| 2016 | 14,715 | 533,129 | 276.01 | 14,715 | 460,109.0 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2017 | 15,399 | 549,554 | 280.21 | 15,399 | 487,266.6 |
| 2018 | 15,817 | 577,304 | 273.98 | 15,817 | 513,089.1 |
| 2019 | 15,096 | 582,799 | 259.03 | 15,096 | 517,723.7 |
| 2020 | 14,123 | 608,035 | 232.27 | 14,123 | 529,771.1 |
| 2021 | 15,085 | 612,053 | 246.47 | 15,085 | 547,616.3 |
| 2022 | 13,988 | 623,990 | 224.17 | 13,988 | 509,581.1 |
| 2023 | 12,612 | 500,655 | 251.91 | 12,612 | 448,427.0 |
| *Incident history of sudden cardiac arrest* | | | | | |
| *0-17 years* | | | | | |
| 2010 | 33 | 596,376 | 0.55 | 33 | 495,669.4 |
| 2011 | 24 | 594,381 | 0.4 | 24 | 492,369.3 |
| 2012 | 32 | 614,242 | 0.52 | 32 | 484,192.0 |
| 2013 | 23 | 555,776 | 0.41 | 23 | 465,722.4 |
| 2014 | 29 | 553,529 | 0.52 | 29 | 461,108.2 |
| 2015 | 28 | 576,574 | 0.49 | 28 | 475,705.7 |
| 2016 | 33 | 628,993 | 0.52 | 33 | 487,936.6 |
| 2017 | 36 | 615,516 | 0.58 | 36 | 508,950.8 |
| 2018 | 38 | 651,695 | 0.58 | 38 | 533,408.3 |
| 2019 | 50 | 657,012 | 0.76 | 50 | 548,561.4 |
| 2020 | 43 | 693,906 | 0.62 | 43 | 554,383.5 |
| 2021 | 59 | 668,192 | 0.88 | 59 | 580,131.2 |
| 2022 | 58 | 640,408 | 0.91 | 58 | 511,777.2 |
| 2023 | 54 | 492,339 | 1.1 | 54 | 422,101.5 |
| *18-43 years* | | | | | |
| 2010 | 148 | 910,032 | 1.63 | 148 | 729,840.2 |
| 2011 | 166 | 938,000 | 1.77 | 166 | 753,924.8 |
| 2012 | 171 | 1,015,742 | 1.68 | 171 | 784,267.1 |
| 2013 | 154 | 943,814 | 1.63 | 154 | 768,810.1 |
| 2014 | 165 | 946,692 | 1.74 | 165 | 763,493.1 |
| 2015 | 197 | 1,024,866 | 1.92 | 197 | 815,088.7 |
| 2016 | 205 | 1,177,295 | 1.74 | 205 | 863,226.7 |
| 2017 | 227 | 1,151,116 | 1.97 | 227 | 916,337.3 |
| 2018 | 234 | 1,221,014 | 1.92 | 234 | 972,561.8 |
| 2019 | 255 | 1,249,942 | 2.04 | 255 | 1,001,113.5 |
| 2020 | 323 | 1,327,644 | 2.43 | 323 | 1,006,183.2 |
| 2021 | 400 | 1,263,099 | 3.17 | 400 | 1,044,096.9 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2022 | 326 | 1,225,480 | 2.66 | 326 | 929,727.9 |
| 2023 | 266 | 953,214 | 2.79 | 266 | 781,491.5 |
| *44-64 years* | | | | | |
| 2010 | 728 | 934,901 | 7.79 | 728 | 821,592.0 |
| 2011 | 779 | 955,348 | 8.15 | 779 | 833,744.7 |
| 2012 | 813 | 991,251 | 8.2 | 813 | 838,622.9 |
| 2013 | 790 | 934,267 | 8.46 | 790 | 819,399.3 |
| 2014 | 787 | 930,645 | 8.46 | 787 | 808,702.5 |
| 2015 | 815 | 1,000,979 | 8.14 | 815 | 861,949.5 |
| 2016 | 930 | 1,123,975 | 8.27 | 930 | 899,009.4 |
| 2017 | 971 | 1,089,418 | 8.91 | 971 | 938,391.8 |
| 2018 | 1,106 | 1,134,017 | 9.75 | 1,106 | 974,694.1 |
| 2019 | 1,147 | 1,149,100 | 9.98 | 1,147 | 991,943.2 |
| 2020 | 1,163 | 1,174,419 | 9.9 | 1,163 | 965,729.7 |
| 2021 | 1,266 | 1,100,659 | 11.5 | 1,266 | 961,704.7 |
| 2022 | 1,076 | 1,067,268 | 10.08 | 1,076 | 855,664.7 |
| 2023 | 860 | 817,761 | 10.52 | 860 | 711,284.4 |
| *≥ 65 years* | | | | | |
| 2010 | 1,214 | 354,697 | 34.23 | 1,214 | 325,381.6 |
| 2011 | 1,354 | 382,606 | 35.39 | 1,354 | 347,187.5 |
| 2012 | 1,436 | 431,262 | 33.3 | 1,436 | 381,961.8 |
| 2013 | 1,617 | 449,590 | 35.97 | 1,617 | 409,237.6 |
| 2014 | 1,753 | 477,762 | 36.69 | 1,753 | 435,222.0 |
| 2015 | 1,736 | 501,380 | 34.62 | 1,736 | 456,663.5 |
| 2016 | 1,836 | 549,250 | 33.43 | 1,836 | 485,759.8 |
| 2017 | 2,096 | 566,027 | 37.03 | 2,096 | 514,201.3 |
| 2018 | 2,194 | 594,176 | 36.93 | 2,194 | 540,924.0 |
| 2019 | 2,216 | 600,221 | 36.92 | 2,216 | 545,107.1 |
| 2020 | 2,247 | 624,505 | 35.98 | 2,247 | 556,005.6 |
| 2021 | 2,478 | 627,350 | 39.5 | 2,478 | 573,315.3 |
| 2022 | 2,161 | 640,238 | 33.75 | 2,161 | 533,752.0 |
| 2023 | 1,857 | 515,005 | 36.06 | 1,857 | 471,423.8 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| **Prevalent Capture of Confounding Conditions** | | | | | |
| *Prevalent obesity* | | | | | |
| *0-17 years* | | | | | |
| 2010 | 13,125 | 596,388 | 220.07 | 18,357 | 495,692.9 |
| 2011 | 16,650 | 594,388 | 280.12 | 24,439 | 492,383.5 |
| 2012 | 17,600 | 614,253 | 286.53 | 25,159 | 484,211.3 |
| 2013 | 17,234 | 555,788 | 310.08 | 24,439 | 465,740.7 |
| 2014 | 17,934 | 553,544 | 323.99 | 25,116 | 461,129.4 |
| 2015 | 17,911 | 576,594 | 310.63 | 24,279 | 475,733.9 |
| 2016 | 18,547 | 629,012 | 294.86 | 25,362 | 487,962.6 |
| 2017 | 20,497 | 615,530 | 333 | 28,110 | 508,975.6 |
| 2018 | 26,939 | 651,714 | 413.36 | 35,879 | 533,442.5 |
| 2019 | 29,957 | 657,038 | 455.94 | 39,859 | 548,606.3 |
| 2020 | 27,037 | 693,938 | 389.62 | 35,371 | 554,431.3 |
| 2021 | 38,855 | 668,212 | 581.48 | 51,970 | 580,173.7 |
| 2022 | 26,513 | 640,435 | 413.98 | 35,424 | 511,817.4 |
| 2023 | 16,564 | 492,356 | 336.42 | 23,891 | 422,142.2 |
| *18-43 years* | | | | | |
| 2010 | 40,763 | 910,070 | 447.91 | 84,899 | 729,921.8 |
| 2011 | 41,998 | 938,054 | 447.71 | 86,040 | 754,028.1 |
| 2012 | 46,034 | 1,015,812 | 453.17 | 95,337 | 784,390.8 |
| 2013 | 47,437 | 943,863 | 502.58 | 98,081 | 768,928.3 |
| 2014 | 51,026 | 946,754 | 538.96 | 105,066 | 763,613.7 |
| 2015 | 57,270 | 1,024,933 | 558.77 | 120,690 | 815,231.8 |
| 2016 | 60,759 | 1,177,393 | 516.05 | 131,826 | 863,372.5 |
| 2017 | 69,973 | 1,151,229 | 607.81 | 155,706 | 916,503.4 |
| 2018 | 81,135 | 1,221,131 | 664.43 | 180,583 | 972,749.2 |
| 2019 | 83,673 | 1,250,080 | 669.34 | 184,056 | 1,001,320.5 |
| 2020 | 77,119 | 1,327,802 | 580.8 | 179,563 | 1,006,415.7 |
| 2021 | 94,602 | 1,263,255 | 748.87 | 223,967 | 1,044,377.3 |
| 2022 | 89,279 | 1,225,636 | 728.43 | 208,495 | 929,975.7 |
| 2023 | 79,096 | 953,340 | 829.67 | 208,133 | 781,704.4 |
| *44-64 years* | | | | | |
| 2010 | 73,943 | 935,077 | 790.77 | 156,246 | 822,009.7 |
| 2011 | 75,566 | 955,547 | 790.81 | 154,697 | 834,210.7 |
| 2012 | 81,104 | 991,501 | 817.99 | 170,015 | 839,122.8 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2013 | 86,218 | 934,535 | 922.58 | 181,075 | 819,935.9 |
| 2014 | 93,182 | 930,932 | 1,000.95 | 200,531 | 809,290.3 |
| 2015 | 103,894 | 1,001,309 | 1,037.58 | 228,092 | 862,574.0 |
| 2016 | 108,783 | 1,124,382 | 967.49 | 243,484 | 899,665.7 |
| 2017 | 121,153 | 1,089,834 | 1,111.66 | 275,319 | 939,119.1 |
| 2018 | 135,350 | 1,134,476 | 1,193.06 | 309,433 | 975,483.5 |
| 2019 | 137,621 | 1,149,589 | 1,197.13 | 313,532 | 992,797.9 |
| 2020 | 122,179 | 1,174,974 | 1,039.84 | 280,978 | 966,622.8 |
| 2021 | 139,224 | 1,101,200 | 1,264.29 | 328,327 | 962,612.0 |
| 2022 | 134,246 | 1,067,858 | 1,257.15 | 308,856 | 856,496.9 |
| 2023 | 116,307 | 818,188 | 1,421.52 | 299,525 | 712,013.5 |
| *≥ 65 years* | | | | | |
| 2010 | 27,594 | 354,897 | 777.52 | 60,645 | 325,907.6 |
| 2011 | 32,140 | 382,816 | 839.57 | 70,258 | 347,774.0 |
| 2012 | 38,228 | 431,573 | 885.78 | 85,954 | 382,641.0 |
| 2013 | 50,047 | 449,900 | 1,112.40 | 111,569 | 410,015.6 |
| 2014 | 60,056 | 478,146 | 1,256.02 | 143,160 | 436,105.0 |
| 2015 | 67,568 | 501,816 | 1,346.47 | 163,599 | 457,596.2 |
| 2016 | 71,653 | 549,751 | 1,303.37 | 177,417 | 486,710.3 |
| 2017 | 78,490 | 566,540 | 1,385.43 | 196,369 | 515,313.3 |
| 2018 | 84,679 | 594,757 | 1,423.76 | 213,748 | 542,120.6 |
| 2019 | 89,889 | 600,857 | 1,496.01 | 227,791 | 546,391.7 |
| 2020 | 85,488 | 625,235 | 1,367.29 | 219,737 | 557,337.2 |
| 2021 | 93,161 | 628,107 | 1,483.20 | 252,587 | 574,694.1 |
| 2022 | 92,574 | 641,101 | 1,443.98 | 233,004 | 535,045.2 |
| 2023 | 80,892 | 515,556 | 1,569.02 | 207,117 | 472,573.4 |
| *Prevalent overweight* | | | | | |
| *0-17 years* | | | | | |
| 2010 | 10,546 | 596,388 | 176.83 | 13,570 | 495,692.9 |
| 2011 | 11,980 | 594,388 | 201.55 | 14,349 | 492,383.5 |
| 2012 | 12,035 | 614,253 | 195.93 | 14,149 | 484,211.3 |
| 2013 | 12,271 | 555,788 | 220.79 | 14,182 | 465,740.7 |
| 2014 | 12,098 | 553,544 | 218.56 | 13,961 | 461,129.4 |
| 2015 | 11,226 | 576,594 | 194.7 | 12,891 | 475,733.9 |
| 2016 | 11,783 | 629,012 | 187.33 | 13,285 | 487,962.6 |
| 2017 | 12,940 | 615,530 | 210.23 | 14,576 | 508,975.6 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2018 | 20,380 | 651,714 | 312.71 | 22,502 | 533,442.5 |
| 2019 | 22,100 | 657,038 | 336.36 | 24,650 | 548,606.3 |
| 2020 | 18,552 | 693,938 | 267.34 | 20,396 | 554,431.3 |
| 2021 | 24,703 | 668,212 | 369.69 | 27,288 | 580,173.7 |
| 2022 | 15,864 | 640,435 | 247.71 | 17,334 | 511,817.4 |
| 2023 | 8,311 | 492,356 | 168.8 | 9,289 | 422,142.2 |
| *18-43 years* | | | | | |
| 2010 | 6,077 | 910,070 | 66.78 | 8,071 | 729,921.8 |
| 2011 | 6,509 | 938,054 | 69.39 | 8,481 | 754,028.1 |
| 2012 | 6,904 | 1,015,812 | 67.97 | 8,943 | 784,390.8 |
| 2013 | 6,907 | 943,863 | 73.18 | 8,890 | 768,928.3 |
| 2014 | 7,085 | 946,754 | 74.83 | 8,993 | 763,613.7 |
| 2015 | 8,202 | 1,024,933 | 80.02 | 10,357 | 815,231.8 |
| 2016 | 8,953 | 1,177,393 | 76.04 | 11,840 | 863,372.5 |
| 2017 | 11,679 | 1,151,229 | 101.45 | 15,830 | 916,503.4 |
| 2018 | 12,384 | 1,221,131 | 101.41 | 17,052 | 972,749.2 |
| 2019 | 12,516 | 1,250,080 | 100.12 | 17,570 | 1,001,320.5 |
| 2020 | 8,887 | 1,327,802 | 66.93 | 12,289 | 1,006,415.7 |
| 2021 | 10,658 | 1,263,255 | 84.37 | 15,099 | 1,044,377.3 |
| 2022 | 9,723 | 1,225,636 | 79.33 | 14,108 | 929,975.7 |
| 2023 | 9,901 | 953,340 | 103.86 | 14,592 | 781,704.4 |
| *44-64 years* | | | | | |
| 2010 | 9,642 | 935,077 | 103.11 | 13,198 | 822,009.7 |
| 2011 | 10,342 | 955,547 | 108.23 | 13,534 | 834,210.7 |
| 2012 | 11,210 | 991,501 | 113.06 | 14,991 | 839,122.8 |
| 2013 | 11,355 | 934,535 | 121.5 | 14,836 | 819,935.9 |
| 2014 | 11,970 | 930,932 | 128.58 | 15,936 | 809,290.3 |
| 2015 | 14,418 | 1,001,309 | 143.99 | 19,398 | 862,574.0 |
| 2016 | 15,708 | 1,124,382 | 139.7 | 21,717 | 899,665.7 |
| 2017 | 20,033 | 1,089,834 | 183.82 | 28,687 | 939,119.1 |
| 2018 | 21,116 | 1,134,476 | 186.13 | 30,799 | 975,483.5 |
| 2019 | 20,877 | 1,149,589 | 181.6 | 30,135 | 992,797.9 |
| 2020 | 15,112 | 1,174,974 | 128.62 | 21,246 | 966,622.8 |
| 2021 | 16,953 | 1,101,200 | 153.95 | 23,828 | 962,612.0 |
| 2022 | 15,556 | 1,067,858 | 145.67 | 22,274 | 856,496.9 |
| 2023 | 15,956 | 818,188 | 195.02 | 23,976 | 712,013.5 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| ≥ 65 years | | | | | |
| 2010 | 3,283 | 354,897 | 92.51 | 4,717 | 325,907.6 |
| 2011 | 4,202 | 382,816 | 109.77 | 5,524 | 347,774.0 |
| 2012 | 5,488 | 431,573 | 127.16 | 7,177 | 382,641.0 |
| 2013 | 6,038 | 449,900 | 134.21 | 8,039 | 410,015.6 |
| 2014 | 7,790 | 478,146 | 162.92 | 10,488 | 436,105.0 |
| 2015 | 10,197 | 501,816 | 203.2 | 13,675 | 457,596.2 |
| 2016 | 10,545 | 549,751 | 191.81 | 14,785 | 486,710.3 |
| 2017 | 14,158 | 566,540 | 249.9 | 20,936 | 515,313.3 |
| 2018 | 14,513 | 594,757 | 244.02 | 22,307 | 542,120.6 |
| 2019 | 13,972 | 600,857 | 232.53 | 21,121 | 546,391.7 |
| 2020 | 10,625 | 625,235 | 169.94 | 16,416 | 557,337.2 |
| 2021 | 12,495 | 628,107 | 198.93 | 19,118 | 574,694.1 |
| 2022 | 12,478 | 641,101 | 194.63 | 18,957 | 535,045.2 |
| 2023 | 13,072 | 515,556 | 253.55 | 19,974 | 472,573.4 |
| Prevalent smoking | | | | | |
| 0-17 years | | | | | |
| 2010 | 1,742 | 596,388 | 29.21 | 2,603 | 495,692.9 |
| 2011 | 1,648 | 594,388 | 27.73 | 2,363 | 492,383.5 |
| 2012 | 1,448 | 614,253 | 23.57 | 2,227 | 484,211.3 |
| 2013 | 1,199 | 555,788 | 21.57 | 1,970 | 465,740.7 |
| 2014 | 1,111 | 553,544 | 20.07 | 1,838 | 461,129.4 |
| 2015 | 1,300 | 576,594 | 22.55 | 1,923 | 475,733.9 |
| 2016 | 2,011 | 629,012 | 31.97 | 3,061 | 487,962.6 |
| 2017 | 2,433 | 615,530 | 39.53 | 3,515 | 508,975.6 |
| 2018 | 2,981 | 651,714 | 45.74 | 4,286 | 533,442.5 |
| 2019 | 4,062 | 657,038 | 61.82 | 6,554 | 548,606.3 |
| 2020 | 3,491 | 693,938 | 50.31 | 6,322 | 554,431.3 |
| 2021 | 3,890 | 668,212 | 58.22 | 6,574 | 580,173.7 |
| 2022 | 3,862 | 640,435 | 60.3 | 6,733 | 511,817.4 |
| 2023 | 3,246 | 492,356 | 65.93 | 6,106 | 422,142.2 |
| 18-43 years | | | | | |
| 2010 | 47,459 | 910,070 | 521.49 | 85,296 | 729,921.8 |
| 2011 | 50,689 | 938,054 | 540.36 | 91,424 | 754,028.1 |
| 2012 | 52,542 | 1,015,812 | 517.24 | 97,237 | 784,390.8 |
| 2013 | 51,547 | 943,863 | 546.13 | 97,092 | 768,928.3 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2014 | 52,608 | 946,754 | 555.67 | 100,678 | 763,613.7 |
| 2015 | 56,764 | 1,024,933 | 553.83 | 110,672 | 815,231.8 |
| 2016 | 57,163 | 1,177,393 | 485.5 | 110,491 | 863,372.5 |
| 2017 | 61,486 | 1,151,229 | 534.09 | 121,132 | 916,503.4 |
| 2018 | 67,767 | 1,221,131 | 554.95 | 139,905 | 972,749.2 |
| 2019 | 69,629 | 1,250,080 | 557 | 145,657 | 1,001,320.5 |
| 2020 | 58,133 | 1,327,802 | 437.81 | 123,453 | 1,006,415.7 |
| 2021 | 62,142 | 1,263,255 | 491.92 | 134,131 | 1,044,377.3 |
| 2022 | 54,447 | 1,225,636 | 444.23 | 113,976 | 929,975.7 |
| 2023 | 44,742 | 953,340 | 469.32 | 92,313 | 781,704.4 |
| *44-64 years* | | | | | |
| 2010 | 78,669 | 935,077 | 841.31 | 163,024 | 822,009.7 |
| 2011 | 80,819 | 955,547 | 845.79 | 169,166 | 834,210.7 |
| 2012 | 81,905 | 991,501 | 826.07 | 173,667 | 839,122.8 |
| 2013 | 82,441 | 934,535 | 882.16 | 177,148 | 819,935.9 |
| 2014 | 82,918 | 930,932 | 890.7 | 180,563 | 809,290.3 |
| 2015 | 90,917 | 1,001,309 | 907.98 | 204,436 | 862,574.0 |
| 2016 | 95,775 | 1,124,382 | 851.8 | 221,306 | 899,665.7 |
| 2017 | 103,160 | 1,089,834 | 946.57 | 244,638 | 939,119.1 |
| 2018 | 110,538 | 1,134,476 | 974.35 | 272,328 | 975,483.5 |
| 2019 | 112,137 | 1,149,589 | 975.45 | 281,377 | 992,797.9 |
| 2020 | 93,132 | 1,174,974 | 792.63 | 231,096 | 966,622.8 |
| 2021 | 96,564 | 1,101,200 | 876.9 | 239,927 | 962,612.0 |
| 2022 | 89,023 | 1,067,858 | 833.66 | 217,284 | 856,496.9 |
| 2023 | 76,405 | 818,188 | 933.83 | 183,010 | 712,013.5 |
| *≥ 65 years* | | | | | |
| 2010 | 34,336 | 354,897 | 967.49 | 66,759 | 325,907.6 |
| 2011 | 38,456 | 382,816 | 1,004.56 | 76,511 | 347,774.0 |
| 2012 | 45,028 | 431,573 | 1,043.35 | 92,299 | 382,641.0 |
| 2013 | 51,090 | 449,900 | 1,135.59 | 106,127 | 410,015.6 |
| 2014 | 58,060 | 478,146 | 1,214.27 | 123,553 | 436,105.0 |
| 2015 | 65,350 | 501,816 | 1,302.27 | 144,336 | 457,596.2 |
| 2016 | 74,726 | 549,751 | 1,359.27 | 183,445 | 486,710.3 |
| 2017 | 84,455 | 566,540 | 1,490.72 | 216,144 | 515,313.3 |
| 2018 | 90,848 | 594,757 | 1,527.48 | 249,820 | 542,120.6 |
| 2019 | 92,884 | 600,857 | 1,545.86 | 264,683 | 546,391.7 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2020 | 81,560 | 625,235 | 1,304.47 | 226,157 | 557,337.2 |
| 2021 | 86,608 | 628,107 | 1,378.87 | 251,621 | 574,694.1 |
| 2022 | 85,345 | 641,101 | 1,331.23 | 236,976 | 535,045.2 |
| 2023 | 79,223 | 515,556 | 1,536.65 | 211,757 | 472,573.4 |
| *Prevalent alcohol abuse or dependence* | | | | | |
| *0-17 years* | | | | | |
| 2010 | 1,572 | 596,388 | 26.36 | 5,832 | 495,692.9 |
| 2011 | 1,402 | 594,388 | 23.59 | 5,581 | 492,383.5 |
| 2012 | 1,306 | 614,253 | 21.26 | 5,483 | 484,211.3 |
| 2013 | 1,108 | 555,788 | 19.94 | 4,688 | 465,740.7 |
| 2014 | 1,031 | 553,544 | 18.63 | 3,945 | 461,129.4 |
| 2015 | 964 | 576,594 | 16.72 | 3,876 | 475,733.9 |
| 2016 | 958 | 629,012 | 15.23 | 3,893 | 487,962.6 |
| 2017 | 951 | 615,530 | 15.45 | 3,565 | 508,975.6 |
| 2018 | 951 | 651,714 | 14.59 | 3,948 | 533,442.5 |
| 2019 | 1,003 | 657,038 | 15.27 | 4,268 | 548,606.3 |
| 2020 | 822 | 693,938 | 11.85 | 5,115 | 554,431.3 |
| 2021 | 798 | 668,212 | 11.94 | 3,886 | 580,173.7 |
| 2022 | 769 | 640,435 | 12.01 | 4,065 | 511,817.4 |
| 2023 | 750 | 492,356 | 15.23 | 3,850 | 422,142.2 |
| *18-43 years* | | | | | |
| 2010 | 11,597 | 910,070 | 127.43 | 52,264 | 729,921.8 |
| 2011 | 11,808 | 938,054 | 125.88 | 56,899 | 754,028.1 |
| 2012 | 12,754 | 1,015,812 | 125.55 | 59,184 | 784,390.8 |
| 2013 | 12,757 | 943,863 | 135.16 | 59,662 | 768,928.3 |
| 2014 | 12,246 | 946,754 | 129.35 | 58,730 | 763,613.7 |
| 2015 | 12,753 | 1,024,933 | 124.43 | 65,290 | 815,231.8 |
| 2016 | 13,217 | 1,177,393 | 112.26 | 67,100 | 863,372.5 |
| 2017 | 14,819 | 1,151,229 | 128.72 | 75,260 | 916,503.4 |
| 2018 | 16,760 | 1,221,131 | 137.25 | 92,749 | 972,749.2 |
| 2019 | 17,677 | 1,250,080 | 141.41 | 100,621 | 1,001,320.5 |
| 2020 | 16,724 | 1,327,802 | 125.95 | 105,756 | 1,006,415.7 |
| 2021 | 18,793 | 1,263,255 | 148.77 | 123,976 | 1,044,377.3 |
| 2022 | 17,884 | 1,225,636 | 145.92 | 123,823 | 929,975.7 |
| 2023 | 17,336 | 953,340 | 181.84 | 130,029 | 781,704.4 |
| *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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2010 | 14,537 | 935,077 | 155.46 | 64,623 | 822,009.7 |
| 2011 | 14,395 | 955,547 | 150.65 | 67,478 | 834,210.7 |
| 2012 | 15,289 | 991,501 | 154.2 | 69,645 | 839,122.8 |
| 2013 | 15,595 | 934,535 | 166.87 | 71,059 | 819,935.9 |
| 2014 | 15,623 | 930,932 | 167.82 | 71,754 | 809,290.3 |
| 2015 | 16,367 | 1,001,309 | 163.46 | 76,387 | 862,574.0 |
| 2016 | 16,030 | 1,124,382 | 142.57 | 77,747 | 899,665.7 |
| 2017 | 16,780 | 1,089,834 | 153.97 | 83,410 | 939,119.1 |
| 2018 | 18,554 | 1,134,476 | 163.55 | 98,122 | 975,483.5 |
| 2019 | 19,267 | 1,149,589 | 167.6 | 105,202 | 992,797.9 |
| 2020 | 18,197 | 1,174,974 | 154.87 | 111,243 | 966,622.8 |
| 2021 | 20,413 | 1,101,200 | 185.37 | 126,498 | 962,612.0 |
| 2022 | 20,013 | 1,067,858 | 187.41 | 123,156 | 856,496.9 |
| 2023 | 19,539 | 818,188 | 238.81 | 122,724 | 712,013.5 |
| *≥ 65 years* | | | | | |
| 2010 | 5,085 | 354,897 | 143.28 | 14,704 | 325,907.6 |
| 2011 | 5,613 | 382,816 | 146.62 | 16,697 | 347,774.0 |
| 2012 | 6,695 | 431,573 | 155.13 | 19,920 | 382,641.0 |
| 2013 | 7,499 | 449,900 | 166.68 | 22,291 | 410,015.6 |
| 2014 | 8,147 | 478,146 | 170.39 | 25,110 | 436,105.0 |
| 2015 | 8,359 | 501,816 | 166.57 | 26,177 | 457,596.2 |
| 2016 | 8,513 | 549,751 | 154.85 | 27,970 | 486,710.3 |
| 2017 | 9,055 | 566,540 | 159.83 | 30,236 | 515,313.3 |
| 2018 | 9,859 | 594,757 | 165.77 | 35,545 | 542,120.6 |
| 2019 | 10,408 | 600,857 | 173.22 | 37,673 | 546,391.7 |
| 2020 | 10,538 | 625,235 | 168.54 | 40,573 | 557,337.2 |
| 2021 | 11,563 | 628,107 | 184.09 | 46,003 | 574,694.1 |
| 2022 | 11,443 | 641,101 | 178.49 | 44,460 | 535,045.2 |
| 2023 | 12,218 | 515,556 | 236.99 | 47,099 | 472,573.4 |
| *Prevalent drug abuse or dependence* | | | | | |
| *0-17 years* | | | | | |
| 2010 | 2,815 | 596,388 | 47.2 | 10,426 | 495,692.9 |
| 2011 | 2,947 | 594,388 | 49.58 | 11,631 | 492,383.5 |
| 2012 | 2,923 | 614,253 | 47.59 | 11,178 | 484,211.3 |
| 2013 | 2,773 | 555,788 | 49.89 | 10,028 | 465,740.7 |
| 2014 | 2,481 | 553,544 | 44.82 | 8,921 | 461,129.4 |

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2015 | 2,215 | 576,594 | 38.42 | 7,948 | 475,733.9 |
| 2016 | 1,598 | 629,012 | 25.4 | 5,457 | 487,962.6 |
| 2017 | 1,662 | 615,530 | 27 | 5,555 | 508,975.6 |
| 2018 | 1,817 | 651,714 | 27.88 | 6,073 | 533,442.5 |
| 2019 | 1,841 | 657,038 | 28.02 | 5,874 | 548,606.3 |
| 2020 | 1,446 | 693,938 | 20.84 | 4,559 | 554,431.3 |
| 2021 | 1,450 | 668,212 | 21.7 | 4,630 | 580,173.7 |
| 2022 | 1,547 | 640,435 | 24.16 | 5,334 | 511,817.4 |
| 2023 | 1,373 | 492,356 | 27.89 | 5,351 | 422,142.2 |
| *18-43 years* | | | | | |
| 2010 | 12,839 | 910,070 | 141.08 | 33,278 | 729,921.8 |
| 2011 | 17,490 | 938,054 | 186.45 | 42,114 | 754,028.1 |
| 2012 | 20,028 | 1,015,812 | 197.16 | 49,864 | 784,390.8 |
| 2013 | 21,054 | 943,863 | 223.06 | 57,396 | 768,928.3 |
| 2014 | 21,497 | 946,754 | 227.06 | 56,205 | 763,613.7 |
| 2015 | 20,370 | 1,024,933 | 198.74 | 51,655 | 815,231.8 |
| 2016 | 9,661 | 1,177,393 | 82.05 | 24,841 | 863,372.5 |
| 2017 | 11,075 | 1,151,229 | 96.2 | 27,906 | 916,503.4 |
| 2018 | 13,133 | 1,221,131 | 107.55 | 35,968 | 972,749.2 |
| 2019 | 13,856 | 1,250,080 | 110.84 | 38,489 | 1,001,320.5 |
| 2020 | 13,416 | 1,327,802 | 101.04 | 38,590 | 1,006,415.7 |
| 2021 | 15,576 | 1,263,255 | 123.3 | 45,674 | 1,044,377.3 |
| 2022 | 14,592 | 1,225,636 | 119.06 | 42,445 | 929,975.7 |
| 2023 | 12,799 | 953,340 | 134.25 | 41,996 | 781,704.4 |
| *44-64 years* | | | | | |
| 2010 | 14,145 | 935,077 | 151.27 | 30,998 | 822,009.7 |
| 2011 | 19,590 | 955,547 | 205.01 | 43,263 | 834,210.7 |
| 2012 | 19,964 | 991,501 | 201.35 | 46,306 | 839,122.8 |
| 2013 | 20,658 | 934,535 | 221.05 | 51,002 | 819,935.9 |
| 2014 | 21,077 | 930,932 | 226.41 | 51,386 | 809,290.3 |
| 2015 | 20,315 | 1,001,309 | 202.88 | 45,318 | 862,574.0 |
| 2016 | 6,127 | 1,124,382 | 54.49 | 12,849 | 899,665.7 |
| 2017 | 6,754 | 1,089,834 | 61.97 | 14,081 | 939,119.1 |
| 2018 | 7,728 | 1,134,476 | 68.12 | 17,685 | 975,483.5 |
| 2019 | 8,310 | 1,149,589 | 72.29 | 19,027 | 992,797.9 |
| 2020 | 7,564 | 1,174,974 | 64.38 | 19,225 | 966,622.8 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2021 | 8,646 | 1,101,200 | 78.51 | 21,787 | 962,612.0 |
| 2022 | 8,555 | 1,067,858 | 80.11 | 22,493 | 856,496.9 |
| 2023 | 8,048 | 818,188 | 98.36 | 21,866 | 712,013.5 |
| *≥ 65 years* | | | | | |
| 2010 | 3,742 | 354,897 | 105.44 | 6,648 | 325,907.6 |
| 2011 | 5,710 | 382,816 | 149.16 | 11,371 | 347,774.0 |
| 2012 | 6,342 | 431,573 | 146.95 | 13,734 | 382,641.0 |
| 2013 | 6,775 | 449,900 | 150.59 | 15,883 | 410,015.6 |
| 2014 | 7,301 | 478,146 | 152.69 | 16,670 | 436,105.0 |
| 2015 | 7,137 | 501,816 | 142.22 | 14,919 | 457,596.2 |
| 2016 | 2,299 | 549,751 | 41.82 | 3,937 | 486,710.3 |
| 2017 | 2,678 | 566,540 | 47.27 | 4,665 | 515,313.3 |
| 2018 | 3,051 | 594,757 | 51.3 | 5,776 | 542,120.6 |
| 2019 | 3,283 | 600,857 | 54.64 | 6,467 | 546,391.7 |
| 2020 | 3,171 | 625,235 | 50.72 | 6,832 | 557,337.2 |
| 2021 | 3,651 | 628,107 | 58.13 | 7,736 | 574,694.1 |
| 2022 | 3,827 | 641,101 | 59.69 | 7,785 | 535,045.2 |
| 2023 | 4,025 | 515,556 | 78.07 | 8,410 | 472,573.4 |
| *Prevalent history of CABG or PTCA* | | | | | |
| *0-17 years* | | | | | |
| 2010 | ***** | 596,388 | ***** | ***** | 495,692.9 |
| 2011 | ***** | 594,388 | ***** | ***** | 492,383.5 |
| 2012 | ***** | 614,253 | ***** | ***** | 484,211.3 |
| 2013 | ***** | 555,788 | ***** | ***** | 465,740.7 |
| 2014 | ***** | 553,544 | ***** | ***** | 461,129.4 |
| 2015 | 15 | 576,594 | 0.26 | 17 | 475,733.9 |
| 2016 | 14 | 629,012 | 0.22 | 15 | 487,962.6 |
| 2017 | ***** | 615,530 | ***** | ***** | 508,975.6 |
| 2018 | 19 | 651,714 | 0.29 | 22 | 533,442.5 |
| 2019 | ***** | 657,038 | ***** | ***** | 548,606.3 |
| 2020 | ***** | 693,938 | ***** | ***** | 554,431.3 |
| 2021 | 14 | 668,212 | 0.21 | 15 | 580,173.7 |
| 2022 | 14 | 640,435 | 0.22 | 16 | 511,817.4 |
| 2023 | 28 | 492,356 | 0.57 | 40 | 422,142.2 |
| *18-43 years* | | | | | |
| 2010 | 338 | 910,070 | 3.71 | 1,167 | 729,921.8 |

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2011 | 296 | 938,054 | 3.16 | 833 | 754,028.1 |
| 2012 | 293 | 1,015,812 | 2.88 | 827 | 784,390.8 |
| 2013 | 285 | 943,863 | 3.02 | 790 | 768,928.3 |
| 2014 | 355 | 946,754 | 3.75 | 962 | 763,613.7 |
| 2015 | 391 | 1,024,933 | 3.81 | 1,195 | 815,231.8 |
| 2016 | 443 | 1,177,393 | 3.76 | 1,440 | 863,372.5 |
| 2017 | 459 | 1,151,229 | 3.99 | 1,308 | 916,503.4 |
| 2018 | 511 | 1,221,131 | 4.18 | 1,419 | 972,749.2 |
| 2019 | 476 | 1,250,080 | 3.81 | 1,372 | 1,001,320.5 |
| 2020 | 479 | 1,327,802 | 3.61 | 1,634 | 1,006,415.7 |
| 2021 | 492 | 1,263,255 | 3.89 | 1,640 | 1,044,377.3 |
| 2022 | 455 | 1,225,636 | 3.71 | 1,498 | 929,975.7 |
| 2023 | 408 | 953,340 | 4.28 | 1,383 | 781,704.4 |
| *44-64 years* | | | | | |
| 2010 | 8,899 | 935,077 | 95.17 | 26,110 | 822,009.7 |
| 2011 | 8,334 | 955,547 | 87.22 | 23,548 | 834,210.7 |
| 2012 | 8,022 | 991,501 | 80.91 | 24,302 | 839,122.8 |
| 2013 | 7,981 | 934,535 | 85.4 | 22,911 | 819,935.9 |
| 2014 | 9,007 | 930,932 | 96.75 | 26,370 | 809,290.3 |
| 2015 | 9,584 | 1,001,309 | 95.71 | 29,228 | 862,574.0 |
| 2016 | 10,286 | 1,124,382 | 91.48 | 33,738 | 899,665.7 |
| 2017 | 10,864 | 1,089,834 | 99.68 | 37,052 | 939,119.1 |
| 2018 | 11,401 | 1,134,476 | 100.5 | 39,860 | 975,483.5 |
| 2019 | 11,603 | 1,149,589 | 100.93 | 39,769 | 992,797.9 |
| 2020 | 10,388 | 1,174,974 | 88.41 | 34,185 | 966,622.8 |
| 2021 | 10,022 | 1,101,200 | 91.01 | 35,474 | 962,612.0 |
| 2022 | 9,132 | 1,067,858 | 85.52 | 30,797 | 856,496.9 |
| 2023 | 7,807 | 818,188 | 95.42 | 26,531 | 712,013.5 |
| *≥ 65 years* | | | | | |
| 2010 | 18,847 | 354,897 | 531.06 | 52,851 | 325,907.6 |
| 2011 | 19,639 | 382,816 | 513.01 | 54,500 | 347,774.0 |
| 2012 | 21,082 | 431,573 | 488.49 | 64,192 | 382,641.0 |
| 2013 | 22,610 | 449,900 | 502.56 | 69,826 | 410,015.6 |
| 2014 | 26,032 | 478,146 | 544.44 | 80,843 | 436,105.0 |
| 2015 | 27,120 | 501,816 | 540.44 | 85,948 | 457,596.2 |
| 2016 | 28,993 | 549,751 | 527.38 | 99,171 | 486,710.3 |

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2017 | 30,678 | 566,540 | 541.5 | 109,258 | 515,313.3 |
| 2018 | 31,584 | 594,757 | 531.04 | 114,155 | 542,120.6 |
| 2019 | 31,325 | 600,857 | 521.34 | 118,074 | 546,391.7 |
| 2020 | 29,092 | 625,235 | 465.3 | 104,021 | 557,337.2 |
| 2021 | 29,431 | 628,107 | 468.57 | 112,738 | 574,694.1 |
| 2022 | 28,214 | 641,101 | 440.09 | 102,605 | 535,045.2 |
| 2023 | 26,178 | 515,556 | 507.76 | 95,396 | 472,573.4 |

*Prevalent history of sudden cardiac arrest*

*0-17 years*

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2010 | 36 | 596,388 | 0.6 | 50 | 495,692.9 |
| 2011 | 25 | 594,388 | 0.42 | 37 | 492,383.5 |
| 2012 | 34 | 614,253 | 0.55 | 54 | 484,211.3 |
| 2013 | 27 | 555,788 | 0.49 | 41 | 465,740.7 |
| 2014 | 32 | 553,544 | 0.58 | 75 | 461,129.4 |
| 2015 | 37 | 576,594 | 0.64 | 90 | 475,733.9 |
| 2016 | 36 | 629,012 | 0.57 | 73 | 487,962.6 |
| 2017 | 39 | 615,530 | 0.63 | 64 | 508,975.6 |
| 2018 | 44 | 651,714 | 0.68 | 105 | 533,442.5 |
| 2019 | 58 | 657,038 | 0.88 | 122 | 548,606.3 |
| 2020 | 54 | 693,938 | 0.78 | 196 | 554,431.3 |
| 2021 | 70 | 668,212 | 1.05 | 176 | 580,173.7 |
| 2022 | 69 | 640,435 | 1.08 | 111 | 511,817.4 |
| 2023 | 63 | 492,356 | 1.28 | 141 | 422,142.2 |

*18-43 years*

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2010 | 168 | 910,070 | 1.85 | 273 | 729,921.8 |
| 2011 | 197 | 938,054 | 2.1 | 308 | 754,028.1 |
| 2012 | 200 | 1,015,812 | 1.97 | 333 | 784,390.8 |
| 2013 | 181 | 943,863 | 1.92 | 350 | 768,928.3 |
| 2014 | 197 | 946,754 | 2.08 | 466 | 763,613.7 |
| 2015 | 239 | 1,024,933 | 2.33 | 466 | 815,231.8 |
| 2016 | 255 | 1,177,393 | 2.17 | 496 | 863,372.5 |
| 2017 | 287 | 1,151,229 | 2.49 | 581 | 916,503.4 |
| 2018 | 300 | 1,221,131 | 2.46 | 669 | 972,749.2 |
| 2019 | 339 | 1,250,080 | 2.71 | 805 | 1,001,320.5 |
| 2020 | 401 | 1,327,802 | 3.02 | 873 | 1,006,415.7 |
| 2021 | 489 | 1,263,255 | 3.87 | 1,200 | 1,044,377.3 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2022 | 419 | 1,225,636 | 3.42 | 1,007 | 929,975.7 |
| 2023 | 349 | 953,340 | 3.66 | 814 | 781,704.4 |
| *44-64 years* | | | | | |
| 2010 | 825 | 935,077 | 8.82 | 1,346 | 822,009.7 |
| 2011 | 892 | 955,547 | 9.33 | 1,450 | 834,210.7 |
| 2012 | 945 | 991,501 | 9.53 | 1,703 | 839,122.8 |
| 2013 | 954 | 934,535 | 10.21 | 1,802 | 819,935.9 |
| 2014 | 987 | 930,932 | 10.6 | 2,124 | 809,290.3 |
| 2015 | 1,040 | 1,001,309 | 10.39 | 2,097 | 862,574.0 |
| 2016 | 1,181 | 1,124,382 | 10.5 | 2,543 | 899,665.7 |
| 2017 | 1,239 | 1,089,834 | 11.37 | 2,775 | 939,119.1 |
| 2018 | 1,398 | 1,134,476 | 12.32 | 2,941 | 975,483.5 |
| 2019 | 1,466 | 1,149,589 | 12.75 | 3,220 | 992,797.9 |
| 2020 | 1,495 | 1,174,974 | 12.72 | 3,305 | 966,622.8 |
| 2021 | 1,629 | 1,101,200 | 14.79 | 3,796 | 962,612.0 |
| 2022 | 1,417 | 1,067,858 | 13.27 | 3,252 | 856,496.9 |
| 2023 | 1,157 | 818,188 | 14.14 | 2,958 | 712,013.5 |
| *≥ 65 years* | | | | | |
| 2010 | 1,323 | 354,897 | 37.28 | 2,050 | 325,907.6 |
| 2011 | 1,494 | 382,816 | 39.03 | 2,238 | 347,774.0 |
| 2012 | 1,615 | 431,573 | 37.42 | 2,545 | 382,641.0 |
| 2013 | 1,828 | 449,900 | 40.63 | 2,958 | 410,015.6 |
| 2014 | 2,005 | 478,146 | 41.93 | 3,516 | 436,105.0 |
| 2015 | 2,031 | 501,816 | 40.47 | 3,745 | 457,596.2 |
| 2016 | 2,146 | 549,751 | 39.04 | 4,127 | 486,710.3 |
| 2017 | 2,445 | 566,540 | 43.16 | 4,638 | 515,313.3 |
| 2018 | 2,601 | 594,757 | 43.73 | 5,377 | 542,120.6 |
| 2019 | 2,654 | 600,857 | 44.17 | 5,701 | 546,391.7 |
| 2020 | 2,714 | 625,235 | 43.41 | 5,381 | 557,337.2 |
| 2021 | 2,936 | 628,107 | 46.74 | 6,170 | 574,694.1 |
| 2022 | 2,652 | 641,101 | 41.37 | 5,690 | 535,045.2 |
| 2023 | 2,279 | 515,556 | 44.2 | 5,318 | 472,573.4 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| **Capture of Other Confounding Covariates[2]** | | | | | |
| *Has diagnosis code that indicates a range of Body Mass Index (BMI)* | | | | | |
| *0-17 years* | | | | | |
| 2010 | 15,996 | 596,388 | 268.21 | 17,188 | 495,692.9 |
| 2011 | 21,328 | 594,388 | 358.82 | 24,255 | 492,383.5 |
| 2012 | 24,648 | 614,253 | 401.27 | 27,448 | 484,211.3 |
| 2013 | 25,606 | 555,788 | 460.72 | 28,198 | 465,740.7 |
| 2014 | 25,818 | 553,544 | 466.41 | 28,261 | 461,129.4 |
| 2015 | 27,884 | 576,594 | 483.6 | 31,689 | 475,733.9 |
| 2016 | 29,749 | 629,012 | 472.95 | 34,218 | 487,962.6 |
| 2017 | 40,791 | 615,530 | 662.7 | 48,858 | 508,975.6 |
| 2018 | 61,844 | 651,714 | 948.94 | 72,523 | 533,442.5 |
| 2019 | 61,465 | 657,038 | 935.49 | 72,954 | 548,606.3 |
| 2020 | 48,950 | 693,938 | 705.39 | 58,359 | 554,431.3 |
| 2021 | 70,951 | 668,212 | 1,061.80 | 86,340 | 580,173.7 |
| 2022 | 55,953 | 640,435 | 873.67 | 67,455 | 511,817.4 |
| 2023 | 41,609 | 492,356 | 845.1 | 50,947 | 422,142.2 |
| *18-43 years* | | | | | |
| 2010 | 6,844 | 910,070 | 75.2 | 9,518 | 729,921.8 |
| 2011 | 10,292 | 938,054 | 109.72 | 14,612 | 754,028.1 |
| 2012 | 13,967 | 1,015,812 | 137.5 | 20,095 | 784,390.8 |
| 2013 | 18,427 | 943,863 | 195.23 | 27,345 | 768,928.3 |
| 2014 | 24,197 | 946,754 | 255.58 | 38,400 | 763,613.7 |
| 2015 | 28,410 | 1,024,933 | 277.19 | 46,877 | 815,231.8 |
| 2016 | 33,059 | 1,177,393 | 280.78 | 57,025 | 863,372.5 |
| 2017 | 44,213 | 1,151,229 | 384.05 | 78,374 | 916,503.4 |
| 2018 | 52,429 | 1,221,131 | 429.35 | 96,168 | 972,749.2 |
| 2019 | 54,795 | 1,250,080 | 438.33 | 102,278 | 1,001,320.5 |
| 2020 | 51,422 | 1,327,802 | 387.27 | 98,790 | 1,006,415.7 |
| 2021 | 63,769 | 1,263,255 | 504.8 | 126,739 | 1,044,377.3 |
| 2022 | 64,222 | 1,225,636 | 523.99 | 119,671 | 929,975.7 |
| 2023 | 60,215 | 953,340 | 631.62 | 114,928 | 781,704.4 |
| *44-64 years* | | | | | |
| 2010 | 12,785 | 935,077 | 136.73 | 17,913 | 822,009.7 |
| 2011 | 18,455 | 955,547 | 193.14 | 25,577 | 834,210.7 |
| 2012 | 25,338 | 991,501 | 255.55 | 36,083 | 839,122.8 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2013 | 33,157 | 934,535 | 354.8 | 49,566 | 819,935.9 |
| 2014 | 44,318 | 930,932 | 476.06 | 73,921 | 809,290.3 |
| 2015 | 51,566 | 1,001,309 | 514.99 | 90,164 | 862,574.0 |
| 2016 | 59,567 | 1,124,382 | 529.78 | 109,237 | 899,665.7 |
| 2017 | 74,495 | 1,089,834 | 683.54 | 138,621 | 939,119.1 |
| 2018 | 85,295 | 1,134,476 | 751.84 | 163,156 | 975,483.5 |
| 2019 | 92,321 | 1,149,589 | 803.08 | 181,915 | 992,797.9 |
| 2020 | 84,280 | 1,174,974 | 717.29 | 164,783 | 966,622.8 |
| 2021 | 96,472 | 1,101,200 | 876.06 | 196,229 | 962,612.0 |
| 2022 | 98,850 | 1,067,858 | 925.68 | 187,582 | 856,496.9 |
| 2023 | 88,908 | 818,188 | 1,086.65 | 171,238 | 712,013.5 |
| *≥ 65 years* | | | | | |
| 2010 | 5,318 | 354,897 | 149.85 | 6,960 | 325,907.6 |
| 2011 | 9,609 | 382,816 | 251.01 | 13,041 | 347,774.0 |
| 2012 | 14,893 | 431,573 | 345.09 | 20,934 | 382,641.0 |
| 2013 | 22,893 | 449,900 | 508.85 | 34,549 | 410,015.6 |
| 2014 | 33,896 | 478,146 | 708.9 | 60,364 | 436,105.0 |
| 2015 | 42,800 | 501,816 | 852.9 | 78,091 | 457,596.2 |
| 2016 | 48,539 | 549,751 | 882.93 | 94,359 | 486,710.3 |
| 2017 | 60,485 | 566,540 | 1,067.62 | 119,286 | 515,313.3 |
| 2018 | 65,563 | 594,757 | 1,102.35 | 131,738 | 542,120.6 |
| 2019 | 68,997 | 600,857 | 1,148.31 | 145,214 | 546,391.7 |
| 2020 | 63,409 | 625,235 | 1,014.16 | 138,687 | 557,337.2 |
| 2021 | 69,382 | 628,107 | 1,104.62 | 161,866 | 574,694.1 |
| 2022 | 72,342 | 641,101 | 1,128.40 | 153,209 | 535,045.2 |
| 2023 | 66,742 | 515,556 | 1,294.56 | 136,086 | 472,573.4 |

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

*0-17 years*

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2010 | 3,920 | 596,388 | 65.73 | 4,634 | 495,692.9 |
| 2011 | 6,253 | 594,388 | 105.2 | 7,640 | 492,383.5 |
| 2012 | 7,198 | 614,253 | 117.18 | 8,590 | 484,211.3 |
| 2013 | 6,025 | 555,788 | 108.4 | 7,282 | 465,740.7 |
| 2014 | 7,079 | 553,544 | 127.89 | 8,444 | 461,129.4 |
| 2015 | 9,321 | 576,594 | 161.66 | 11,795 | 475,733.9 |
| 2016 | 10,300 | 629,012 | 163.75 | 13,000 | 487,962.6 |
| 2017 | 18,697 | 615,530 | 303.75 | 24,366 | 508,975.6 |

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2018 | 25,135 | 651,714 | 385.68 | 32,027 | 533,442.5 |
| 2019 | 28,471 | 657,038 | 433.32 | 36,356 | 548,606.3 |
| 2020 | 25,699 | 693,938 | 370.34 | 32,553 | 554,431.3 |
| 2021 | 37,229 | 668,212 | 557.14 | 48,226 | 580,173.7 |
| 2022 | 25,242 | 640,435 | 394.14 | 32,469 | 511,817.4 |
| 2023 | 15,395 | 492,356 | 312.68 | 20,818 | 422,142.2 |
| *18-43 years* | | | | | |
| 2010 | 5,832 | 910,070 | 64.08 | 8,331 | 729,921.8 |
| 2011 | 8,727 | 938,054 | 93.03 | 12,423 | 754,028.1 |
| 2012 | 11,795 | 1,015,812 | 116.11 | 16,654 | 784,390.8 |
| 2013 | 15,748 | 943,863 | 166.85 | 23,301 | 768,928.3 |
| 2014 | 21,198 | 946,754 | 223.9 | 33,682 | 763,613.7 |
| 2015 | 24,819 | 1,024,933 | 242.15 | 41,420 | 815,231.8 |
| 2016 | 28,297 | 1,177,393 | 240.34 | 49,597 | 863,372.5 |
| 2017 | 35,709 | 1,151,229 | 310.18 | 64,612 | 916,503.4 |
| 2018 | 43,118 | 1,221,131 | 353.1 | 80,283 | 972,749.2 |
| 2019 | 45,308 | 1,250,080 | 362.44 | 85,557 | 1,001,320.5 |
| 2020 | 45,137 | 1,327,802 | 339.94 | 88,003 | 1,006,415.7 |
| 2021 | 56,590 | 1,263,255 | 447.97 | 113,441 | 1,044,377.3 |
| 2022 | 57,556 | 1,225,636 | 469.6 | 107,276 | 929,975.7 |
| 2023 | 52,338 | 953,340 | 549 | 101,147 | 781,704.4 |
| *44-64 years* | | | | | |
| 2010 | 11,490 | 935,077 | 122.88 | 16,257 | 822,009.7 |
| 2011 | 16,193 | 955,547 | 169.46 | 22,642 | 834,210.7 |
| 2012 | 21,964 | 991,501 | 221.52 | 31,578 | 839,122.8 |
| 2013 | 29,037 | 934,535 | 310.71 | 44,050 | 819,935.9 |
| 2014 | 39,427 | 930,932 | 423.52 | 67,220 | 809,290.3 |
| 2015 | 45,553 | 1,001,309 | 454.93 | 81,879 | 862,574.0 |
| 2016 | 51,867 | 1,124,382 | 461.29 | 97,676 | 899,665.7 |
| 2017 | 61,752 | 1,089,834 | 566.62 | 117,613 | 939,119.1 |
| 2018 | 71,617 | 1,134,476 | 631.28 | 140,218 | 975,483.5 |
| 2019 | 78,283 | 1,149,589 | 680.97 | 158,293 | 992,797.9 |
| 2020 | 74,422 | 1,174,974 | 633.39 | 149,423 | 966,622.8 |
| 2021 | 86,232 | 1,101,200 | 783.07 | 179,279 | 962,612.0 |
| 2022 | 89,558 | 1,067,858 | 838.67 | 172,100 | 856,496.9 |
| 2023 | 79,209 | 818,188 | 968.1 | 155,445 | 712,013.5 |

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| *≥ 65 years* | | | | | |
| 2010 | 4,270 | 354,897 | 120.32 | 5,701 | 325,907.6 |
| 2011 | 7,470 | 382,816 | 195.13 | 10,483 | 347,774.0 |
| 2012 | 11,234 | 431,573 | 260.3 | 16,313 | 382,641.0 |
| 2013 | 18,091 | 449,900 | 402.11 | 28,225 | 410,015.6 |
| 2014 | 27,307 | 478,146 | 571.1 | 51,150 | 436,105.0 |
| 2015 | 33,810 | 501,816 | 673.75 | 65,952 | 457,596.2 |
| 2016 | 38,872 | 549,751 | 707.08 | 79,999 | 486,710.3 |
| 2017 | 45,749 | 566,540 | 807.52 | 95,530 | 515,313.3 |
| 2018 | 49,721 | 594,757 | 835.99 | 104,510 | 542,120.6 |
| 2019 | 53,488 | 600,857 | 890.2 | 118,528 | 546,391.7 |
| 2020 | 51,811 | 625,235 | 828.66 | 117,804 | 557,337.2 |
| 2021 | 56,482 | 628,107 | 899.24 | 139,356 | 574,694.1 |
| 2022 | 58,880 | 641,101 | 918.42 | 129,638 | 535,045.2 |
| 2023 | 53,173 | 515,556 | 1,031.37 | 112,282 | 472,573.4 |
| *Has diagnosis code that indicates a range of BMI that classifies as overweight* | | | | | |
| *0-17 years* | | | | | |
| 2010 | 2,530 | 596,388 | 42.42 | 2,654 | 495,692.9 |
| 2011 | 3,708 | 594,388 | 62.38 | 3,984 | 492,383.5 |
| 2012 | 4,234 | 614,253 | 68.93 | 4,514 | 484,211.3 |
| 2013 | 4,137 | 555,788 | 74.43 | 4,384 | 465,740.7 |
| 2014 | 4,383 | 553,544 | 79.18 | 4,585 | 461,129.4 |
| 2015 | 7,005 | 576,594 | 121.49 | 7,512 | 475,733.9 |
| 2016 | 8,544 | 629,012 | 135.83 | 9,162 | 487,962.6 |
| 2017 | 9,426 | 615,530 | 153.14 | 10,153 | 508,975.6 |
| 2018 | 16,731 | 651,714 | 256.72 | 17,904 | 533,442.5 |
| 2019 | 8,998 | 657,038 | 136.95 | 9,716 | 548,606.3 |
| 2020 | 5,986 | 693,938 | 86.26 | 6,451 | 554,431.3 |
| 2021 | 9,007 | 668,212 | 134.79 | 9,764 | 580,173.7 |
| 2022 | 7,198 | 640,435 | 112.39 | 7,817 | 511,817.4 |
| 2023 | 5,966 | 492,356 | 121.17 | 6,619 | 422,142.2 |
| *18-43 years* | | | | | |
| 2010 | 505 | 910,070 | 5.55 | 590 | 729,921.8 |
| 2011 | 920 | 938,054 | 9.81 | 1,107 | 754,028.1 |
| 2012 | 1,404 | 1,015,812 | 13.82 | 1,701 | 784,390.8 |
| 2013 | 1,703 | 943,863 | 18.04 | 2,118 | 768,928.3 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2014 | 1,956 | 946,754 | 20.66 | 2,407 | 763,613.7 |
| 2015 | 2,375 | 1,024,933 | 23.17 | 2,933 | 815,231.8 |
| 2016 | 2,988 | 1,177,393 | 25.38 | 3,858 | 863,372.5 |
| 2017 | 5,012 | 1,151,229 | 43.54 | 6,914 | 916,503.4 |
| 2018 | 5,276 | 1,221,131 | 43.21 | 7,419 | 972,749.2 |
| 2019 | 5,618 | 1,250,080 | 44.94 | 8,114 | 1,001,320.5 |
| 2020 | 3,799 | 1,327,802 | 28.61 | 5,225 | 1,006,415.7 |
| 2021 | 4,365 | 1,263,255 | 34.55 | 6,448 | 1,044,377.3 |
| 2022 | 4,147 | 1,225,636 | 33.84 | 6,210 | 929,975.7 |
| 2023 | 4,648 | 953,340 | 48.75 | 6,581 | 781,704.4 |
| *44-64 years* | | | | | |
| 2010 | 957 | 935,077 | 10.23 | 1,166 | 822,009.7 |
| 2011 | 1,793 | 955,547 | 18.76 | 2,122 | 834,210.7 |
| 2012 | 2,654 | 991,501 | 26.77 | 3,262 | 839,122.8 |
| 2013 | 3,183 | 934,535 | 34.06 | 3,812 | 819,935.9 |
| 2014 | 3,826 | 930,932 | 41.1 | 4,696 | 809,290.3 |
| 2015 | 4,500 | 1,001,309 | 44.94 | 5,615 | 862,574.0 |
| 2016 | 5,738 | 1,124,382 | 51.03 | 7,584 | 899,665.7 |
| 2017 | 9,285 | 1,089,834 | 85.2 | 13,214 | 939,119.1 |
| 2018 | 9,758 | 1,134,476 | 86.01 | 14,333 | 975,483.5 |
| 2019 | 10,223 | 1,149,589 | 88.93 | 14,857 | 992,797.9 |
| 2020 | 7,319 | 1,174,974 | 62.29 | 10,039 | 966,622.8 |
| 2021 | 7,725 | 1,101,200 | 70.15 | 10,697 | 962,612.0 |
| 2022 | 7,029 | 1,067,858 | 65.82 | 9,896 | 856,496.9 |
| 2023 | 7,552 | 818,188 | 92.3 | 10,514 | 712,013.5 |
| *≥ 65 years* | | | | | |
| 2010 | 458 | 354,897 | 12.91 | 556 | 325,907.6 |
| 2011 | 1,135 | 382,816 | 29.65 | 1,297 | 347,774.0 |
| 2012 | 2,031 | 431,573 | 47.06 | 2,380 | 382,641.0 |
| 2013 | 2,429 | 449,900 | 53.99 | 2,963 | 410,015.6 |
| 2014 | 3,569 | 478,146 | 74.64 | 4,418 | 436,105.0 |
| 2015 | 5,168 | 501,816 | 102.99 | 6,336 | 457,596.2 |
| 2016 | 5,702 | 549,751 | 103.72 | 7,558 | 486,710.3 |
| 2017 | 8,809 | 566,540 | 155.49 | 12,751 | 515,313.3 |
| 2018 | 9,163 | 594,757 | 154.06 | 14,046 | 542,120.6 |
| 2019 | 8,885 | 600,857 | 147.87 | 13,528 | 546,391.7 |

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2020 | 6,423 | 625,235 | 102.73 | 10,231 | 557,337.2 |
| 2021 | 7,492 | 628,107 | 119.28 | 11,935 | 574,694.1 |
| 2022 | 7,734 | 641,101 | 120.64 | 11,821 | 535,045.2 |
| 2023 | 7,979 | 515,556 | 154.76 | 12,104 | 472,573.4 |

*Has non-missing value for height*

*0-17 years*

| | | | | | |
|---|---|---|---|---|---|
| 2010 | 268,786 | 596,388 | 4,506.90 | 440,197 | 495,692.9 |
| 2011 | 280,632 | 594,388 | 4,721.36 | 485,014 | 492,383.5 |
| 2012 | 285,785 | 614,253 | 4,652.56 | 529,322 | 484,211.3 |
| 2013 | 282,194 | 555,788 | 5,077.37 | 531,450 | 465,740.7 |
| 2014 | 282,148 | 553,544 | 5,097.12 | 522,816 | 461,129.4 |
| 2015 | 289,346 | 576,594 | 5,018.19 | 523,366 | 475,733.9 |
| 2016 | 291,095 | 629,012 | 4,627.81 | 513,718 | 487,962.6 |
| 2017 | 304,329 | 615,530 | 4,944.18 | 528,807 | 508,975.6 |
| 2018 | 322,303 | 651,714 | 4,945.47 | 574,211 | 533,442.5 |
| 2019 | 339,579 | 657,038 | 5,168.33 | 623,724 | 548,606.3 |
| 2020 | 266,757 | 693,938 | 3,844.10 | 379,668 | 554,431.3 |
| 2021 | 310,683 | 668,212 | 4,649.47 | 475,111 | 580,173.7 |
| 2022 | 288,802 | 640,435 | 4,509.47 | 440,327 | 511,817.4 |
| 2023 | 220,333 | 492,356 | 4,475.07 | 345,425 | 422,142.2 |

*18-43 years*

| | | | | | |
|---|---|---|---|---|---|
| 2010 | 306,652 | 910,070 | 3,369.54 | 575,751 | 729,921.8 |
| 2011 | 328,225 | 938,054 | 3,499.00 | 614,468 | 754,028.1 |
| 2012 | 345,300 | 1,015,812 | 3,399.25 | 658,450 | 784,390.8 |
| 2013 | 342,166 | 943,863 | 3,625.17 | 654,820 | 768,928.3 |
| 2014 | 333,658 | 946,754 | 3,524.23 | 632,181 | 763,613.7 |
| 2015 | 348,847 | 1,024,933 | 3,403.61 | 651,563 | 815,231.8 |
| 2016 | 359,147 | 1,177,393 | 3,050.36 | 661,904 | 863,372.5 |
| 2017 | 376,734 | 1,151,229 | 3,272.45 | 691,487 | 916,503.4 |
| 2018 | 413,683 | 1,221,131 | 3,387.70 | 840,688 | 972,749.2 |
| 2019 | 435,040 | 1,250,080 | 3,480.10 | 939,876 | 1,001,320.5 |
| 2020 | 305,558 | 1,327,802 | 2,301.23 | 562,738 | 1,006,415.7 |
| 2021 | 377,093 | 1,263,255 | 2,985.09 | 728,970 | 1,044,377.3 |
| 2022 | 351,840 | 1,225,636 | 2,870.67 | 604,882 | 929,975.7 |
| 2023 | 244,180 | 953,340 | 2,561.31 | 370,171 | 781,704.4 |

*44-64 years*

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2010 | 394,730 | 935,077 | 4,221.36 | 842,609 | 822,009.7 |
| 2011 | 418,441 | 955,547 | 4,379.07 | 896,957 | 834,210.7 |
| 2012 | 429,132 | 991,501 | 4,328.10 | 936,137 | 839,122.8 |
| 2013 | 424,534 | 934,535 | 4,542.73 | 928,900 | 819,935.9 |
| 2014 | 407,171 | 930,932 | 4,373.80 | 867,561 | 809,290.3 |
| 2015 | 426,605 | 1,001,309 | 4,260.47 | 891,041 | 862,574.0 |
| 2016 | 434,770 | 1,124,382 | 3,866.75 | 892,394 | 899,665.7 |
| 2017 | 448,100 | 1,089,834 | 4,111.64 | 907,887 | 939,119.1 |
| 2018 | 472,652 | 1,134,476 | 4,166.26 | 1,053,679 | 975,483.5 |
| 2019 | 487,908 | 1,149,589 | 4,244.20 | 1,158,833 | 992,797.9 |
| 2020 | 338,068 | 1,174,974 | 2,877.24 | 651,814 | 966,622.8 |
| 2021 | 405,403 | 1,101,200 | 3,681.47 | 836,809 | 962,612.0 |
| 2022 | 391,244 | 1,067,858 | 3,663.82 | 708,586 | 856,496.9 |
| 2023 | 266,495 | 818,188 | 3,257.14 | 428,178 | 712,013.5 |
| ≥ 65 years | | | | | |
| 2010 | 211,337 | 354,897 | 5,954.88 | 562,969 | 325,907.6 |
| 2011 | 238,359 | 382,816 | 6,226.46 | 637,350 | 347,774.0 |
| 2012 | 265,669 | 431,573 | 6,155.83 | 721,833 | 382,641.0 |
| 2013 | 282,672 | 449,900 | 6,283.00 | 761,799 | 410,015.6 |
| 2014 | 291,052 | 478,146 | 6,087.09 | 762,376 | 436,105.0 |
| 2015 | 301,926 | 501,816 | 6,016.67 | 776,183 | 457,596.2 |
| 2016 | 315,389 | 549,751 | 5,736.94 | 790,765 | 486,710.3 |
| 2017 | 327,558 | 566,540 | 5,781.73 | 808,847 | 515,313.3 |
| 2018 | 348,666 | 594,757 | 5,862.33 | 943,350 | 542,120.6 |
| 2019 | 360,725 | 600,857 | 6,003.51 | 1,028,890 | 546,391.7 |
| 2020 | 279,847 | 625,235 | 4,475.87 | 612,052 | 557,337.2 |
| 2021 | 327,253 | 628,107 | 5,210.15 | 782,910 | 574,694.1 |
| 2022 | 342,602 | 641,101 | 5,343.96 | 710,179 | 535,045.2 |
| 2023 | 256,415 | 515,556 | 4,973.56 | 478,309 | 472,573.4 |
| Has non-missing value for weight | | | | | |
| 0-17 years | | | | | |
| 2010 | 319,089 | 596,388 | 5,350.36 | 812,797 | 495,692.9 |
| 2011 | 320,718 | 594,388 | 5,395.77 | 821,931 | 492,383.5 |
| 2012 | 317,023 | 614,253 | 5,161.11 | 807,345 | 484,211.3 |
| 2013 | 309,156 | 555,788 | 5,562.48 | 788,440 | 465,740.7 |
| 2014 | 308,679 | 553,544 | 5,576.41 | 782,253 | 461,129.4 |

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2015 | 317,381 | 576,594 | 5,504.41 | 795,752 | 475,733.9 |
| 2016 | 319,991 | 629,012 | 5,087.20 | 790,185 | 487,962.6 |
| 2017 | 335,570 | 615,530 | 5,451.72 | 825,257 | 508,975.6 |
| 2018 | 354,124 | 651,714 | 5,433.73 | 871,048 | 533,442.5 |
| 2019 | 370,416 | 657,038 | 5,637.66 | 933,556 | 548,606.3 |
| 2020 | 299,334 | 693,938 | 4,313.56 | 529,197 | 554,431.3 |
| 2021 | 336,962 | 668,212 | 5,042.74 | 648,617 | 580,173.7 |
| 2022 | 322,725 | 640,435 | 5,039.15 | 670,925 | 511,817.4 |
| 2023 | 252,140 | 492,356 | 5,121.09 | 566,596 | 422,142.2 |
| *18-43 years* | | | | | |
| 2010 | 428,411 | 910,070 | 4,707.45 | 1,263,680 | 729,921.8 |
| 2011 | 435,423 | 938,054 | 4,641.77 | 1,275,569 | 754,028.1 |
| 2012 | 447,222 | 1,015,812 | 4,402.61 | 1,325,734 | 784,390.8 |
| 2013 | 443,063 | 943,863 | 4,694.15 | 1,316,772 | 768,928.3 |
| 2014 | 437,298 | 946,754 | 4,618.92 | 1,282,391 | 763,613.7 |
| 2015 | 460,664 | 1,024,933 | 4,494.58 | 1,329,073 | 815,231.8 |
| 2016 | 478,356 | 1,177,393 | 4,062.84 | 1,369,621 | 863,372.5 |
| 2017 | 506,045 | 1,151,229 | 4,395.69 | 1,436,748 | 916,503.4 |
| 2018 | 542,783 | 1,221,131 | 4,444.92 | 1,579,718 | 972,749.2 |
| 2019 | 572,217 | 1,250,080 | 4,577.44 | 1,693,267 | 1,001,320.5 |
| 2020 | 429,012 | 1,327,802 | 3,230.99 | 1,036,050 | 1,006,415.7 |
| 2021 | 496,246 | 1,263,255 | 3,928.31 | 1,267,947 | 1,044,377.3 |
| 2022 | 472,026 | 1,225,636 | 3,851.27 | 1,131,226 | 929,975.7 |
| 2023 | 366,735 | 953,340 | 3,846.84 | 879,510 | 781,704.4 |
| *44-64 years* | | | | | |
| 2010 | 522,031 | 935,077 | 5,582.76 | 1,660,157 | 822,009.7 |
| 2011 | 526,707 | 955,547 | 5,512.10 | 1,660,246 | 834,210.7 |
| 2012 | 528,268 | 991,501 | 5,327.96 | 1,698,291 | 839,122.8 |
| 2013 | 525,530 | 934,535 | 5,623.44 | 1,695,694 | 819,935.9 |
| 2014 | 513,960 | 930,932 | 5,520.92 | 1,631,481 | 809,290.3 |
| 2015 | 544,585 | 1,001,309 | 5,438.73 | 1,696,361 | 862,574.0 |
| 2016 | 557,568 | 1,124,382 | 4,958.88 | 1,712,947 | 899,665.7 |
| 2017 | 578,447 | 1,089,834 | 5,307.66 | 1,765,691 | 939,119.1 |
| 2018 | 603,706 | 1,134,476 | 5,321.45 | 1,900,796 | 975,483.5 |
| 2019 | 625,485 | 1,149,589 | 5,440.94 | 2,005,913 | 992,797.9 |
| 2020 | 467,309 | 1,174,974 | 3,977.19 | 1,130,921 | 966,622.8 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2021 | 525,937 | 1,101,200 | 4,776.04 | 1,398,922 | 962,612.0 |
| 2022 | 515,489 | 1,067,858 | 4,827.32 | 1,291,416 | 856,496.9 |
| 2023 | 397,224 | 818,188 | 4,854.92 | 1,012,540 | 712,013.5 |
| *≥ 65 years* | | | | | |
| 2010 | 273,589 | 354,897 | 7,708.97 | 1,230,131 | 325,907.6 |
| 2011 | 291,450 | 382,816 | 7,613.32 | 1,291,298 | 347,774.0 |
| 2012 | 316,646 | 431,573 | 7,337.02 | 1,408,969 | 382,641.0 |
| 2013 | 338,329 | 449,900 | 7,520.09 | 1,498,716 | 410,015.6 |
| 2014 | 353,440 | 478,146 | 7,391.88 | 1,538,468 | 436,105.0 |
| 2015 | 371,305 | 501,816 | 7,399.23 | 1,589,496 | 457,596.2 |
| 2016 | 390,585 | 549,751 | 7,104.76 | 1,635,830 | 486,710.3 |
| 2017 | 408,504 | 566,540 | 7,210.51 | 1,708,703 | 515,313.3 |
| 2018 | 430,655 | 594,757 | 7,240.86 | 1,864,000 | 542,120.6 |
| 2019 | 446,851 | 600,857 | 7,436.89 | 1,963,210 | 546,391.7 |
| 2020 | 383,530 | 625,235 | 6,134.17 | 1,172,320 | 557,337.2 |
| 2021 | 425,410 | 628,107 | 6,772.89 | 1,456,450 | 574,694.1 |
| 2022 | 442,083 | 641,101 | 6,895.68 | 1,472,420 | 535,045.2 |
| 2023 | 366,271 | 515,556 | 7,104.39 | 1,296,255 | 472,573.4 |

*Has non-missing values for both height and weight within +/- six months*

*18-43 years*

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2010 | 306,406 | 814,865 | 3,760.21 | 935,150 | 651,054.8 |
| 2011 | 326,853 | 841,861 | 3,882.51 | 983,606 | 676,354.8 |
| 2012 | 339,737 | 897,224 | 3,786.53 | 1,039,040 | 696,422.0 |
| 2013 | 337,495 | 845,326 | 3,992.48 | 1,031,636 | 687,347.6 |
| 2014 | 331,826 | 847,362 | 3,915.99 | 1,006,441 | 686,322.6 |
| 2015 | 343,934 | 912,757 | 3,768.08 | 1,024,028 | 722,272.9 |
| 2016 | 355,294 | 1,028,494 | 3,454.51 | 1,053,492 | 766,894.1 |
| 2017 | 373,552 | 1,018,879 | 3,666.30 | 1,107,109 | 812,954.6 |
| 2018 | 404,951 | 1,082,056 | 3,742.42 | 1,227,095 | 855,848.8 |
| 2019 | 422,096 | 1,099,367 | 3,839.45 | 1,311,679 | 879,694.4 |
| 2020 | 309,837 | 1,178,603 | 2,628.85 | 790,926 | 906,074.7 |
| 2021 | 369,238 | 1,142,831 | 3,230.91 | 1,001,954 | 939,203.2 |
| 2022 | 273,200 | 1,090,570 | 2,505.11 | 655,603 | 726,071.8 |
| 2023 | 159,990 | 794,511 | 2,013.69 | 314,128 | 355,955.4 |

*44-64 years*

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2010 | 404,835 | 880,370 | 4,598.46 | 1,329,498 | 765,944.6 |

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2011 | 425,277 | 895,761 | 4,747.66 | 1,378,992 | 779,594.5 |
| 2012 | 432,448 | 921,705 | 4,691.83 | 1,431,544 | 779,297.5 |
| 2013 | 428,004 | 873,720 | 4,898.64 | 1,419,251 | 764,633.6 |
| 2014 | 414,090 | 868,567 | 4,767.51 | 1,357,578 | 758,231.7 |
| 2015 | 433,201 | 934,668 | 4,634.81 | 1,390,607 | 803,322.7 |
| 2016 | 441,541 | 1,032,509 | 4,276.39 | 1,399,971 | 837,162.7 |
| 2017 | 454,847 | 1,011,113 | 4,498.48 | 1,437,984 | 870,318.5 |
| 2018 | 476,022 | 1,050,983 | 4,529.30 | 1,553,385 | 897,904.9 |
| 2019 | 486,150 | 1,058,831 | 4,591.38 | 1,628,712 | 909,872.6 |
| 2020 | 348,106 | 1,081,184 | 3,219.67 | 886,380 | 895,557.3 |
| 2021 | 406,708 | 1,029,789 | 3,949.43 | 1,142,972 | 896,051.9 |
| 2022 | 312,196 | 986,425 | 3,164.92 | 768,009 | 695,482.7 |
| 2023 | 187,801 | 723,684 | 2,595.07 | 370,760 | 336,080.6 |
| ≥ 65 years | | | | | |
| 2010 | 222,516 | 340,744 | 6,530.30 | 1,012,463 | 312,451.0 |
| 2011 | 247,814 | 368,291 | 6,728.76 | 1,104,964 | 334,769.7 |
| 2012 | 273,989 | 414,294 | 6,613.40 | 1,224,553 | 367,723.4 |
| 2013 | 291,496 | 432,145 | 6,745.33 | 1,298,518 | 393,158.8 |
| 2014 | 300,876 | 458,817 | 6,557.65 | 1,319,214 | 416,944.1 |
| 2015 | 313,173 | 480,911 | 6,512.08 | 1,352,977 | 439,573.1 |
| 2016 | 326,880 | 524,383 | 6,233.61 | 1,383,292 | 466,589.9 |
| 2017 | 340,305 | 541,496 | 6,284.53 | 1,441,109 | 493,880.6 |
| 2018 | 359,232 | 567,068 | 6,334.90 | 1,567,475 | 510,448.2 |
| 2019 | 370,374 | 570,662 | 6,490.25 | 1,654,687 | 517,937.5 |
| 2020 | 298,606 | 592,217 | 5,042.17 | 934,962 | 532,639.2 |
| 2021 | 337,877 | 599,384 | 5,637.07 | 1,196,908 | 547,779.0 |
| 2022 | 293,252 | 602,494 | 4,867.30 | 957,876 | 448,181.9 |
| 2023 | 203,814 | 471,281 | 4,324.68 | 485,817 | 225,942.8 |
| *Has BMI calculated from vitals is in the obesity range* | | | | | |
| *18-43 years* | | | | | |
| 2010 | 104,664 | 814,865 | 1,284.43 | 338,209 | 651,054.8 |
| 2011 | 110,725 | 841,861 | 1,315.24 | 353,892 | 676,354.8 |
| 2012 | 114,404 | 897,224 | 1,275.09 | 373,905 | 696,422.0 |
| 2013 | 114,840 | 845,326 | 1,358.53 | 375,993 | 687,347.6 |
| 2014 | 115,216 | 847,362 | 1,359.70 | 372,494 | 686,322.6 |
| 2015 | 121,233 | 912,757 | 1,328.21 | 385,170 | 722,272.9 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2016 | 127,246 | 1,028,494 | 1,237.21 | 401,678 | 766,894.1 |
| 2017 | 134,794 | 1,018,879 | 1,322.96 | 426,045 | 812,954.6 |
| 2018 | 148,210 | 1,082,056 | 1,369.71 | 479,370 | 855,848.8 |
| 2019 | 156,178 | 1,099,367 | 1,420.62 | 517,284 | 879,694.4 |
| 2020 | 120,749 | 1,178,603 | 1,024.51 | 324,852 | 906,074.7 |
| 2021 | 145,504 | 1,142,831 | 1,273.19 | 419,246 | 939,203.2 |
| 2022 | 107,287 | 1,090,570 | 983.77 | 272,589 | 726,071.8 |
| 2023 | 64,644 | 794,511 | 813.63 | 133,990 | 355,955.4 |
| *44-64 years* | | | | | |
| 2010 | 180,692 | 880,370 | 2,052.46 | 608,124 | 765,944.6 |
| 2011 | 188,370 | 895,761 | 2,102.90 | 629,874 | 779,594.5 |
| 2012 | 192,188 | 921,705 | 2,085.14 | 655,977 | 779,297.5 |
| 2013 | 191,464 | 873,720 | 2,191.37 | 655,890 | 764,633.6 |
| 2014 | 187,746 | 868,567 | 2,161.56 | 636,192 | 758,231.7 |
| 2015 | 197,475 | 934,668 | 2,112.78 | 655,090 | 803,322.7 |
| 2016 | 202,979 | 1,032,509 | 1,965.88 | 665,710 | 837,162.7 |
| 2017 | 209,896 | 1,011,113 | 2,075.89 | 687,175 | 870,318.5 |
| 2018 | 220,576 | 1,050,983 | 2,098.76 | 746,388 | 897,904.9 |
| 2019 | 225,652 | 1,058,831 | 2,131.14 | 786,251 | 909,872.6 |
| 2020 | 167,023 | 1,081,184 | 1,544.82 | 433,233 | 895,557.3 |
| 2021 | 193,378 | 1,029,789 | 1,877.84 | 555,788 | 896,051.9 |
| 2022 | 146,280 | 986,425 | 1,482.93 | 367,189 | 695,482.7 |
| 2023 | 88,633 | 723,684 | 1,224.75 | 178,401 | 336,080.6 |
| *≥ 65 years* | | | | | |
| 2010 | 81,493 | 340,744 | 2,391.62 | 339,221 | 312,451.0 |
| 2011 | 91,483 | 368,291 | 2,483.99 | 376,546 | 334,769.7 |
| 2012 | 101,908 | 414,294 | 2,459.80 | 424,039 | 367,723.4 |
| 2013 | 109,655 | 432,145 | 2,537.46 | 453,926 | 393,158.8 |
| 2014 | 114,481 | 458,817 | 2,495.13 | 469,519 | 416,944.1 |
| 2015 | 119,410 | 480,911 | 2,483.00 | 484,899 | 439,573.1 |
| 2016 | 125,437 | 524,383 | 2,392.09 | 502,058 | 466,589.9 |
| 2017 | 131,327 | 541,496 | 2,425.26 | 524,110 | 493,880.6 |
| 2018 | 139,581 | 567,068 | 2,461.45 | 576,543 | 510,448.2 |
| 2019 | 144,586 | 570,662 | 2,533.65 | 611,600 | 517,937.5 |
| 2020 | 116,063 | 592,217 | 1,959.81 | 346,412 | 532,639.2 |
| 2021 | 131,022 | 599,384 | 2,185.94 | 442,598 | 547,779.0 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2022 | 111,078 | 602,494 | 1,843.64 | 344,329 | 448,181.9 |
| 2023 | 74,797 | 471,281 | 1,587.10 | 172,641 | 225,942.8 |

*Has BMI calculated from vitals is in the overweight range*

*18-43 years*

| | | | | | |
|---|---|---|---|---|---|
| 2010 | 107,166 | 814,865 | 1,315.14 | 273,765 | 651,054.8 |
| 2011 | 114,196 | 841,861 | 1,356.47 | 288,795 | 676,354.8 |
| 2012 | 119,298 | 897,224 | 1,329.63 | 305,930 | 696,422.0 |
| 2013 | 117,711 | 845,326 | 1,392.49 | 299,836 | 687,347.6 |
| 2014 | 115,491 | 847,362 | 1,362.95 | 292,350 | 686,322.6 |
| 2015 | 118,657 | 912,757 | 1,299.98 | 295,996 | 722,272.9 |
| 2016 | 123,236 | 1,028,494 | 1,198.22 | 307,178 | 766,894.1 |
| 2017 | 129,422 | 1,018,879 | 1,270.24 | 321,425 | 812,954.6 |
| 2018 | 140,021 | 1,082,056 | 1,294.03 | 354,314 | 855,848.8 |
| 2019 | 146,684 | 1,099,367 | 1,334.26 | 377,113 | 879,694.4 |
| 2020 | 104,632 | 1,178,603 | 887.76 | 228,621 | 906,074.7 |
| 2021 | 124,320 | 1,142,831 | 1,087.82 | 284,276 | 939,203.2 |
| 2022 | 89,168 | 1,090,570 | 817.63 | 184,296 | 726,071.8 |
| 2023 | 49,881 | 794,511 | 627.82 | 87,740 | 355,955.4 |

*44-64 years*

| | | | | | |
|---|---|---|---|---|---|
| 2010 | 156,254 | 880,370 | 1,774.87 | 419,934 | 765,944.6 |
| 2011 | 163,631 | 895,761 | 1,826.73 | 434,564 | 779,594.5 |
| 2012 | 166,040 | 921,705 | 1,801.44 | 449,753 | 779,297.5 |
| 2013 | 163,792 | 873,720 | 1,874.65 | 444,218 | 764,633.6 |
| 2014 | 156,930 | 868,567 | 1,806.77 | 420,874 | 758,231.7 |
| 2015 | 162,956 | 934,668 | 1,743.46 | 430,669 | 803,322.7 |
| 2016 | 165,753 | 1,032,509 | 1,605.34 | 432,621 | 837,162.7 |
| 2017 | 170,233 | 1,011,113 | 1,683.62 | 443,846 | 870,318.5 |
| 2018 | 179,057 | 1,050,983 | 1,703.71 | 479,264 | 897,904.9 |
| 2019 | 183,567 | 1,058,831 | 1,733.68 | 502,754 | 909,872.6 |
| 2020 | 125,613 | 1,081,184 | 1,161.81 | 272,137 | 895,557.3 |
| 2021 | 148,090 | 1,029,789 | 1,438.06 | 350,217 | 896,051.9 |
| 2022 | 109,977 | 986,425 | 1,114.90 | 232,469 | 695,482.7 |
| 2023 | 63,326 | 723,684 | 875.05 | 111,883 | 336,080.6 |

*≥ 65 years*

| | | | | | |
|---|---|---|---|---|---|
| 2010 | 99,395 | 340,744 | 2,917.00 | 364,640 | 312,451.0 |
| 2011 | 109,833 | 368,291 | 2,982.23 | 398,113 | 334,769.7 |

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2012 | 120,829 | 414,294 | 2,916.50 | 440,001 | 367,723.4 |
| 2013 | 127,435 | 432,145 | 2,948.89 | 465,162 | 393,158.8 |
| 2014 | 130,506 | 458,817 | 2,844.40 | 467,696 | 416,944.1 |
| 2015 | 134,222 | 480,911 | 2,790.99 | 474,957 | 439,573.1 |
| 2016 | 139,467 | 524,383 | 2,659.64 | 485,236 | 466,589.9 |
| 2017 | 145,013 | 541,496 | 2,678.01 | 505,482 | 493,880.6 |
| 2018 | 153,053 | 567,068 | 2,699.02 | 546,609 | 510,448.2 |
| 2019 | 157,336 | 570,662 | 2,757.08 | 573,965 | 517,937.5 |
| 2020 | 121,848 | 592,217 | 2,057.49 | 325,646 | 532,639.2 |
| 2021 | 139,148 | 599,384 | 2,321.52 | 412,481 | 547,779.0 |
| 2022 | 118,475 | 602,494 | 1,966.41 | 327,870 | 448,181.9 |
| 2023 | 78,831 | 471,281 | 1,672.70 | 167,653 | 225,942.8 |

*Has non-missing value for diastolic blood pressure*

*0-17 years*

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2010 | 251,826 | 596,388 | 4,222.52 | 504,734 | 495,692.9 |
| 2011 | 256,986 | 594,388 | 4,323.54 | 529,197 | 492,383.5 |
| 2012 | 260,547 | 614,253 | 4,241.69 | 553,394 | 484,211.3 |
| 2013 | 256,672 | 555,788 | 4,618.16 | 549,221 | 465,740.7 |
| 2014 | 259,240 | 553,544 | 4,683.28 | 559,192 | 461,129.4 |
| 2015 | 266,563 | 576,594 | 4,623.06 | 573,115 | 475,733.9 |
| 2016 | 269,822 | 629,012 | 4,289.62 | 574,995 | 487,962.6 |
| 2017 | 283,032 | 615,530 | 4,598.18 | 602,058 | 508,975.6 |
| 2018 | 298,452 | 651,714 | 4,579.49 | 631,490 | 533,442.5 |
| 2019 | 314,593 | 657,038 | 4,788.05 | 675,909 | 548,606.3 |
| 2020 | 244,243 | 693,938 | 3,519.67 | 385,800 | 554,431.3 |
| 2021 | 282,348 | 668,212 | 4,225.43 | 473,831 | 580,173.7 |
| 2022 | 271,127 | 640,435 | 4,233.48 | 490,676 | 511,817.4 |
| 2023 | 213,732 | 492,356 | 4,341.01 | 415,699 | 422,142.2 |

*18-43 years*

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2010 | 449,371 | 910,070 | 4,937.76 | 1,530,291 | 729,921.8 |
| 2011 | 457,982 | 938,054 | 4,882.26 | 1,554,184 | 754,028.1 |
| 2012 | 470,034 | 1,015,812 | 4,627.18 | 1,599,863 | 784,390.8 |
| 2013 | 465,168 | 943,863 | 4,928.34 | 1,587,733 | 768,928.3 |
| 2014 | 459,031 | 946,754 | 4,848.47 | 1,548,465 | 763,613.7 |
| 2015 | 486,057 | 1,024,933 | 4,742.33 | 1,619,755 | 815,231.8 |
| 2016 | 505,082 | 1,177,393 | 4,289.83 | 1,684,581 | 863,372.5 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2017 | 536,161 | 1,151,229 | 4,657.29 | 1,783,143 | 916,503.4 |
| 2018 | 576,508 | 1,221,131 | 4,721.10 | 1,934,655 | 972,749.2 |
| 2019 | 603,379 | 1,250,080 | 4,826.72 | 2,038,028 | 1,001,320.5 |
| 2020 | 464,035 | 1,327,802 | 3,494.76 | 1,278,632 | 1,006,415.7 |
| 2021 | 525,376 | 1,263,255 | 4,158.91 | 1,541,857 | 1,044,377.3 |
| 2022 | 504,756 | 1,225,636 | 4,118.32 | 1,409,385 | 929,975.7 |
| 2023 | 396,829 | 953,340 | 4,162.51 | 1,141,705 | 781,704.4 |
| *44-64 years* | | | | | |
| 2010 | 544,534 | 935,077 | 5,823.41 | 2,186,568 | 822,009.7 |
| 2011 | 550,378 | 955,547 | 5,759.82 | 2,208,766 | 834,210.7 |
| 2012 | 553,046 | 991,501 | 5,577.87 | 2,224,624 | 839,122.8 |
| 2013 | 548,793 | 934,535 | 5,872.36 | 2,217,594 | 819,935.9 |
| 2014 | 536,404 | 930,932 | 5,762.01 | 2,129,645 | 809,290.3 |
| 2015 | 569,531 | 1,001,309 | 5,687.86 | 2,231,854 | 862,574.0 |
| 2016 | 584,066 | 1,124,382 | 5,194.55 | 2,284,660 | 899,665.7 |
| 2017 | 608,368 | 1,089,834 | 5,582.21 | 2,375,178 | 939,119.1 |
| 2018 | 634,664 | 1,134,476 | 5,594.34 | 2,496,993 | 975,483.5 |
| 2019 | 655,146 | 1,149,589 | 5,698.96 | 2,577,931 | 992,797.9 |
| 2020 | 510,052 | 1,174,974 | 4,340.96 | 1,526,793 | 966,622.8 |
| 2021 | 561,685 | 1,101,200 | 5,100.66 | 1,847,802 | 962,612.0 |
| 2022 | 552,321 | 1,067,858 | 5,172.23 | 1,732,304 | 856,496.9 |
| 2023 | 425,148 | 818,188 | 5,196.21 | 1,396,500 | 712,013.5 |
| *≥ 65 years* | | | | | |
| 2010 | 281,669 | 354,897 | 7,936.64 | 1,739,305 | 325,907.6 |
| 2011 | 300,604 | 382,816 | 7,852.44 | 1,827,044 | 347,774.0 |
| 2012 | 326,238 | 431,573 | 7,559.28 | 1,965,305 | 382,641.0 |
| 2013 | 348,663 | 449,900 | 7,749.79 | 2,087,677 | 410,015.6 |
| 2014 | 364,181 | 478,146 | 7,616.52 | 2,140,721 | 436,105.0 |
| 2015 | 383,446 | 501,816 | 7,641.17 | 2,234,280 | 457,596.2 |
| 2016 | 403,550 | 549,751 | 7,340.60 | 2,327,027 | 486,710.3 |
| 2017 | 424,066 | 566,540 | 7,485.19 | 2,472,296 | 515,313.3 |
| 2018 | 447,115 | 594,757 | 7,517.61 | 2,657,380 | 542,120.6 |
| 2019 | 462,143 | 600,857 | 7,691.40 | 2,747,714 | 546,391.7 |
| 2020 | 414,471 | 625,235 | 6,629.04 | 1,742,867 | 557,337.2 |
| 2021 | 453,197 | 628,107 | 7,215.28 | 2,130,165 | 574,694.1 |
| 2022 | 468,651 | 641,101 | 7,310.10 | 2,152,917 | 535,045.2 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2023 | 384,222 | 515,556 | 7,452.58 | 1,930,408 | 472,573.4 |
| *Has non-missing value for systolic blood pressure* | | | | | |
| *0-17 years* | | | | | |
| 2010 | 251,842 | 596,388 | 4,222.79 | 504,804 | 495,692.9 |
| 2011 | 256,994 | 594,388 | 4,323.67 | 529,234 | 492,383.5 |
| 2012 | 260,550 | 614,253 | 4,241.74 | 553,411 | 484,211.3 |
| 2013 | 256,677 | 555,788 | 4,618.25 | 549,241 | 465,740.7 |
| 2014 | 259,246 | 553,544 | 4,683.39 | 559,211 | 461,129.4 |
| 2015 | 266,568 | 576,594 | 4,623.15 | 573,127 | 475,733.9 |
| 2016 | 269,835 | 629,012 | 4,289.82 | 575,022 | 487,962.6 |
| 2017 | 283,036 | 615,530 | 4,598.25 | 602,083 | 508,975.6 |
| 2018 | 298,459 | 651,714 | 4,579.60 | 631,515 | 533,442.5 |
| 2019 | 314,600 | 657,038 | 4,788.16 | 675,938 | 548,606.3 |
| 2020 | 244,246 | 693,938 | 3,519.71 | 385,809 | 554,431.3 |
| 2021 | 282,352 | 668,212 | 4,225.49 | 473,844 | 580,173.7 |
| 2022 | 271,133 | 640,435 | 4,233.58 | 490,700 | 511,817.4 |
| 2023 | 213,743 | 492,356 | 4,341.23 | 415,745 | 422,142.2 |
| *18-43 years* | | | | | |
| 2010 | 449,397 | 910,070 | 4,938.05 | 1,530,460 | 729,921.8 |
| 2011 | 457,999 | 938,054 | 4,882.44 | 1,554,271 | 754,028.1 |
| 2012 | 470,042 | 1,015,812 | 4,627.25 | 1,599,913 | 784,390.8 |
| 2013 | 465,175 | 943,863 | 4,928.42 | 1,587,778 | 768,928.3 |
| 2014 | 459,033 | 946,754 | 4,848.49 | 1,548,510 | 763,613.7 |
| 2015 | 486,061 | 1,024,933 | 4,742.37 | 1,619,835 | 815,231.8 |
| 2016 | 505,089 | 1,177,393 | 4,289.89 | 1,684,682 | 863,372.5 |
| 2017 | 536,170 | 1,151,229 | 4,657.37 | 1,783,245 | 916,503.4 |
| 2018 | 576,514 | 1,221,131 | 4,721.15 | 1,934,760 | 972,749.2 |
| 2019 | 603,391 | 1,250,080 | 4,826.82 | 2,038,156 | 1,001,320.5 |
| 2020 | 464,046 | 1,327,802 | 3,494.84 | 1,278,730 | 1,006,415.7 |
| 2021 | 525,389 | 1,263,255 | 4,159.01 | 1,541,940 | 1,044,377.3 |
| 2022 | 504,772 | 1,225,636 | 4,118.45 | 1,409,478 | 929,975.7 |
| 2023 | 396,836 | 953,340 | 4,162.59 | 1,141,795 | 781,704.4 |
| *44-64 years* | | | | | |
| 2010 | 544,554 | 935,077 | 5,823.63 | 2,186,723 | 822,009.7 |
| 2011 | 550,390 | 955,547 | 5,759.95 | 2,208,890 | 834,210.7 |
| 2012 | 553,053 | 991,501 | 5,577.94 | 2,224,718 | 839,122.8 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2013 | 548,801 | 934,535 | 5,872.45 | 2,217,702 | 819,935.9 |
| 2014 | 536,411 | 930,932 | 5,762.09 | 2,129,718 | 809,290.3 |
| 2015 | 569,536 | 1,001,309 | 5,687.91 | 2,231,943 | 862,574.0 |
| 2016 | 584,075 | 1,124,382 | 5,194.63 | 2,284,807 | 899,665.7 |
| 2017 | 608,374 | 1,089,834 | 5,582.26 | 2,375,322 | 939,119.1 |
| 2018 | 634,673 | 1,134,476 | 5,594.42 | 2,497,146 | 975,483.5 |
| 2019 | 655,162 | 1,149,589 | 5,699.10 | 2,578,206 | 992,797.9 |
| 2020 | 510,057 | 1,174,974 | 4,341.01 | 1,526,940 | 966,622.8 |
| 2021 | 561,698 | 1,101,200 | 5,100.78 | 1,847,948 | 962,612.0 |
| 2022 | 552,337 | 1,067,858 | 5,172.38 | 1,732,500 | 856,496.9 |
| 2023 | 425,159 | 818,188 | 5,196.35 | 1,396,638 | 712,013.5 |
| *≥ 65 years* | | | | | |
| 2010 | 281,677 | 354,897 | 7,936.87 | 1,739,454 | 325,907.6 |
| 2011 | 300,610 | 382,816 | 7,852.60 | 1,827,174 | 347,774.0 |
| 2012 | 326,237 | 431,573 | 7,559.25 | 1,965,405 | 382,641.0 |
| 2013 | 348,668 | 449,900 | 7,749.90 | 2,087,802 | 410,015.6 |
| 2014 | 364,185 | 478,146 | 7,616.61 | 2,140,842 | 436,105.0 |
| 2015 | 383,447 | 501,816 | 7,641.19 | 2,234,388 | 457,596.2 |
| 2016 | 403,556 | 549,751 | 7,340.71 | 2,327,166 | 486,710.3 |
| 2017 | 424,074 | 566,540 | 7,485.33 | 2,472,556 | 515,313.3 |
| 2018 | 447,126 | 594,757 | 7,517.79 | 2,657,670 | 542,120.6 |
| 2019 | 462,153 | 600,857 | 7,691.56 | 2,748,000 | 546,391.7 |
| 2020 | 414,481 | 625,235 | 6,629.20 | 1,743,008 | 557,337.2 |
| 2021 | 453,205 | 628,107 | 7,215.41 | 2,130,410 | 574,694.1 |
| 2022 | 468,662 | 641,101 | 7,310.27 | 2,153,111 | 535,045.2 |
| 2023 | 384,226 | 515,556 | 7,452.65 | 1,930,656 | 472,573.4 |

[1]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.

[2]Unlike earlier sections describing incident and prevalent capture of confounding conditions from diagnosis, procedure, and drug codes, this section captures additional prevalent conditions from demographic data (race and imputed race), diagnosis codes (BMI categories), and vitals data (remaining variables).

*****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 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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| **Incident Capture (365-Day Washout) of Confounding Conditions** | | | | | |
| *Incident obesity* | | | | | |
| *Female* | | | | | |
| 2010 | 63,036 | 1,385,081 | 455.11 | 63,036 | 1,165,582.4 |
| 2011 | 67,124 | 1,420,772 | 472.45 | 67,124 | 1,187,929.2 |
| 2012 | 72,621 | 1,503,228 | 483.1 | 72,621 | 1,211,236.1 |
| 2013 | 80,012 | 1,415,660 | 565.19 | 80,012 | 1,189,545.5 |
| 2014 | 82,531 | 1,414,645 | 583.4 | 82,531 | 1,178,077.8 |
| 2015 | 87,681 | 1,499,548 | 584.72 | 87,681 | 1,233,406.8 |
| 2016 | 92,434 | 1,674,258 | 552.09 | 92,434 | 1,287,911.7 |
| 2017 | 104,757 | 1,647,205 | 635.97 | 104,757 | 1,347,889.5 |
| 2018 | 115,831 | 1,725,854 | 671.15 | 115,831 | 1,404,332.9 |
| 2019 | 115,429 | 1,748,769 | 660.06 | 115,429 | 1,428,397.4 |
| 2020 | 107,431 | 1,835,369 | 585.34 | 107,431 | 1,440,670.7 |
| 2021 | 129,087 | 1,754,839 | 735.61 | 129,087 | 1,466,886.4 |
| 2022 | 113,351 | 1,701,429 | 666.21 | 113,351 | 1,304,753.9 |
| 2023 | 100,153 | 1,314,572 | 761.87 | 100,153 | 1,089,585.6 |
| *Male* | | | | | |
| 2010 | 41,104 | 1,253,202 | 327.99 | 41,104 | 1,060,978.5 |
| 2011 | 45,219 | 1,283,506 | 352.31 | 45,219 | 1,082,872.5 |
| 2012 | 49,246 | 1,363,385 | 361.2 | 49,246 | 1,105,986.0 |
| 2013 | 54,475 | 1,286,711 | 423.37 | 54,475 | 1,091,469.6 |
| 2014 | 56,544 | 1,292,863 | 437.35 | 56,544 | 1,085,717.1 |
| 2015 | 61,345 | 1,382,534 | 443.71 | 61,345 | 1,144,992.2 |
| 2016 | 65,766 | 1,558,731 | 421.92 | 65,766 | 1,200,900.1 |
| 2017 | 73,829 | 1,528,771 | 482.93 | 73,829 | 1,261,954.7 |
| 2018 | 83,534 | 1,601,611 | 521.56 | 83,534 | 1,315,670.5 |
| 2019 | 85,229 | 1,620,748 | 525.86 | 85,229 | 1,336,488.1 |
| 2020 | 76,988 | 1,697,746 | 453.47 | 76,988 | 1,338,984.4 |
| 2021 | 93,284 | 1,614,983 | 577.62 | 93,284 | 1,361,747.8 |
| 2022 | 80,726 | 1,570,932 | 513.87 | 80,726 | 1,217,145.3 |
| 2023 | 70,930 | 1,229,001 | 577.14 | 70,930 | 1,028,589.5 |
| *Incident overweight* | | | | | |
| *Female* | | | | | |
| 2010 | 14,590 | 1,423,225 | 102.51 | 14,590 | 1,241,671.8 |
| 2011 | 16,373 | 1,460,765 | 112.09 | 16,373 | 1,267,527.9 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2012 | 17,962 | 1,551,190 | 115.79 | 17,962 | 1,297,390.6 |
| 2013 | 18,022 | 1,462,818 | 123.2 | 18,022 | 1,280,956.0 |
| 2014 | 19,222 | 1,473,635 | 130.44 | 19,222 | 1,282,575.2 |
| 2015 | 21,444 | 1,569,348 | 136.64 | 21,444 | 1,351,634.2 |
| 2016 | 22,776 | 1,754,460 | 129.82 | 22,776 | 1,412,750.7 |
| 2017 | 28,172 | 1,725,583 | 163.26 | 28,172 | 1,481,717.4 |
| 2018 | 31,562 | 1,816,019 | 173.8 | 31,562 | 1,553,184.1 |
| 2019 | 31,262 | 1,846,540 | 169.3 | 31,262 | 1,586,626.8 |
| 2020 | 24,396 | 1,934,652 | 126.1 | 24,396 | 1,594,068.8 |
| 2021 | 30,238 | 1,855,302 | 162.98 | 30,238 | 1,636,777.1 |
| 2022 | 24,792 | 1,813,697 | 136.69 | 24,792 | 1,464,185.7 |
| 2023 | 23,117 | 1,400,114 | 165.11 | 23,117 | 1,228,835.3 |
| *Male* | | | | | |
| 2010 | 10,900 | 1,272,611 | 85.65 | 10,900 | 1,103,870.8 |
| 2011 | 12,843 | 1,305,051 | 98.41 | 12,843 | 1,129,840.2 |
| 2012 | 13,242 | 1,390,363 | 95.24 | 13,242 | 1,158,176.9 |
| 2013 | 14,106 | 1,313,428 | 107.4 | 14,106 | 1,148,266.7 |
| 2014 | 14,811 | 1,326,109 | 111.69 | 14,811 | 1,150,465.3 |
| 2015 | 16,944 | 1,421,771 | 119.18 | 16,944 | 1,217,819.4 |
| 2016 | 18,072 | 1,605,007 | 112.6 | 18,072 | 1,278,993.2 |
| 2017 | 22,615 | 1,573,434 | 143.73 | 22,615 | 1,345,427.5 |
| 2018 | 26,458 | 1,650,825 | 160.27 | 26,458 | 1,406,708.6 |
| 2019 | 26,933 | 1,674,600 | 160.83 | 26,933 | 1,434,262.8 |
| 2020 | 20,973 | 1,752,835 | 119.65 | 20,973 | 1,432,725.3 |
| 2021 | 26,307 | 1,669,762 | 157.55 | 26,307 | 1,464,974.8 |
| 2022 | 21,074 | 1,632,038 | 129.13 | 21,074 | 1,315,653.2 |
| 2023 | 17,422 | 1,275,783 | 136.56 | 17,422 | 1,115,523.8 |
| *Incident smoking* | | | | | |
| *Female* | | | | | |
| 2010 | 51,055 | 1,384,649 | 368.72 | 51,055 | 1,177,893.4 |
| 2011 | 53,045 | 1,420,401 | 373.45 | 53,045 | 1,202,504.1 |
| 2012 | 54,662 | 1,505,107 | 363.18 | 54,662 | 1,230,766.8 |
| 2013 | 57,109 | 1,420,606 | 402 | 57,109 | 1,212,867.1 |
| 2014 | 59,127 | 1,430,003 | 413.47 | 59,127 | 1,212,625.4 |
| 2015 | 63,401 | 1,520,572 | 416.95 | 63,401 | 1,276,243.9 |
| 2016 | 68,050 | 1,698,178 | 400.72 | 68,050 | 1,332,928.6 |

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2017 | 73,460 | 1,671,254 | 439.55 | 73,460 | 1,397,010.5 |
| 2018 | 78,219 | 1,757,333 | 445.1 | 78,219 | 1,464,723.1 |
| 2019 | 78,673 | 1,786,105 | 440.47 | 78,673 | 1,496,043.4 |
| 2020 | 65,264 | 1,875,672 | 347.95 | 65,264 | 1,506,529.6 |
| 2021 | 76,098 | 1,805,720 | 421.43 | 76,098 | 1,555,426.0 |
| 2022 | 69,081 | 1,764,290 | 391.55 | 69,081 | 1,383,614.5 |
| 2023 | 61,058 | 1,357,507 | 449.78 | 61,058 | 1,156,532.9 |
| *Male* | | | | | |
| 2010 | 53,403 | 1,241,525 | 430.14 | 53,403 | 1,042,211.8 |
| 2011 | 56,900 | 1,271,486 | 447.51 | 56,900 | 1,064,979.1 |
| 2012 | 59,830 | 1,350,795 | 442.92 | 59,830 | 1,089,089.8 |
| 2013 | 61,174 | 1,276,019 | 479.41 | 61,174 | 1,077,053.6 |
| 2014 | 64,899 | 1,286,993 | 504.27 | 64,899 | 1,076,801.8 |
| 2015 | 70,696 | 1,376,160 | 513.72 | 70,696 | 1,136,018.0 |
| 2016 | 76,379 | 1,548,687 | 493.19 | 76,379 | 1,190,140.9 |
| 2017 | 83,015 | 1,519,032 | 546.5 | 83,015 | 1,249,445.7 |
| 2018 | 88,296 | 1,592,339 | 554.51 | 88,296 | 1,306,013.5 |
| 2019 | 89,912 | 1,614,336 | 556.96 | 89,912 | 1,330,918.0 |
| 2020 | 73,996 | 1,691,959 | 437.34 | 73,996 | 1,334,206.4 |
| 2021 | 82,958 | 1,620,412 | 511.96 | 82,958 | 1,374,973.1 |
| 2022 | 74,587 | 1,581,557 | 471.6 | 74,587 | 1,228,627.4 |
| 2023 | 65,661 | 1,233,550 | 532.29 | 65,661 | 1,036,328.7 |
| *Incident alcohol abuse or dependence* | | | | | |
| *Female* | | | | | |
| 2010 | 7,721 | 1,421,566 | 54.31 | 7,721 | 1,246,576.6 |
| 2011 | 8,078 | 1,459,501 | 55.35 | 8,078 | 1,274,057.8 |
| 2012 | 8,512 | 1,550,108 | 54.91 | 8,512 | 1,305,500.2 |
| 2013 | 8,649 | 1,460,977 | 59.2 | 8,649 | 1,288,848.3 |
| 2014 | 8,486 | 1,471,940 | 57.65 | 8,486 | 1,290,916.0 |
| 2015 | 8,839 | 1,567,975 | 56.37 | 8,839 | 1,361,657.6 |
| 2016 | 9,381 | 1,755,119 | 53.45 | 9,381 | 1,425,142.9 |
| 2017 | 10,380 | 1,726,067 | 60.14 | 10,380 | 1,496,570.1 |
| 2018 | 11,493 | 1,817,389 | 63.24 | 11,493 | 1,572,130.0 |
| 2019 | 11,945 | 1,847,915 | 64.64 | 11,945 | 1,606,190.3 |
| 2020 | 10,923 | 1,934,376 | 56.47 | 10,923 | 1,608,409.2 |
| 2021 | 11,857 | 1,852,753 | 64 | 11,857 | 1,650,846.2 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2022 | 11,200 | 1,814,080 | 61.74 | 11,200 | 1,475,009.8 |
| 2023 | 11,627 | 1,396,498 | 83.26 | 11,627 | 1,235,981.7 |
| *Male* | | | | | |
| 2010 | 13,805 | 1,265,925 | 109.05 | 13,805 | 1,096,414.4 |
| 2011 | 14,070 | 1,298,460 | 108.36 | 14,070 | 1,123,897.4 |
| 2012 | 15,361 | 1,383,156 | 111.06 | 15,361 | 1,152,267.6 |
| 2013 | 15,131 | 1,306,087 | 115.85 | 15,131 | 1,141,897.9 |
| 2014 | 15,009 | 1,319,039 | 113.79 | 15,009 | 1,145,013.8 |
| 2015 | 15,159 | 1,414,449 | 107.17 | 15,159 | 1,213,640.2 |
| 2016 | 15,750 | 1,598,626 | 98.52 | 15,750 | 1,276,847.5 |
| 2017 | 16,433 | 1,567,392 | 104.84 | 16,433 | 1,345,280.3 |
| 2018 | 17,564 | 1,645,259 | 106.76 | 17,564 | 1,410,096.6 |
| 2019 | 17,968 | 1,669,111 | 107.65 | 17,968 | 1,439,025.1 |
| 2020 | 16,578 | 1,744,920 | 95.01 | 16,578 | 1,433,374.1 |
| 2021 | 18,348 | 1,660,302 | 110.51 | 18,348 | 1,464,961.9 |
| 2022 | 17,327 | 1,624,744 | 106.64 | 17,327 | 1,313,039.1 |
| 2023 | 17,737 | 1,265,853 | 140.12 | 17,737 | 1,108,845.0 |
| *Incident drug abuse or dependence* | | | | | |
| *Female* | | | | | |
| 2010 | 12,960 | 1,422,325 | 91.12 | 12,960 | 1,244,909.2 |
| 2011 | 16,243 | 1,457,240 | 111.46 | 16,243 | 1,266,663.4 |
| 2012 | 14,789 | 1,544,638 | 95.74 | 14,789 | 1,295,215.4 |
| 2013 | 14,993 | 1,455,701 | 103 | 14,993 | 1,278,685.8 |
| 2014 | 14,594 | 1,466,121 | 99.54 | 14,594 | 1,280,268.5 |
| 2015 | 13,518 | 1,562,269 | 86.53 | 13,518 | 1,350,837.8 |
| 2016 | 6,681 | 1,757,858 | 38.01 | 6,681 | 1,423,447.5 |
| 2017 | 7,826 | 1,729,767 | 45.24 | 7,826 | 1,501,991.6 |
| 2018 | 9,026 | 1,821,496 | 49.55 | 9,026 | 1,577,768.9 |
| 2019 | 9,493 | 1,852,295 | 51.25 | 9,493 | 1,611,950.6 |
| 2020 | 8,706 | 1,938,684 | 44.91 | 8,706 | 1,613,812.5 |
| 2021 | 10,113 | 1,857,339 | 54.45 | 10,113 | 1,656,198.3 |
| 2022 | 9,578 | 1,818,869 | 52.66 | 9,578 | 1,480,209.2 |
| 2023 | 8,863 | 1,401,266 | 63.25 | 8,863 | 1,241,780.5 |
| *Male* | | | | | |
| 2010 | 13,861 | 1,269,981 | 109.14 | 13,861 | 1,101,699.4 |
| 2011 | 18,369 | 1,299,723 | 141.33 | 18,369 | 1,123,181.2 |

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2012 | 17,499 | 1,381,783 | 126.64 | 17,499 | 1,148,649.7 |
| 2013 | 17,681 | 1,304,310 | 135.56 | 17,681 | 1,138,441.9 |
| 2014 | 18,082 | 1,316,650 | 137.33 | 18,082 | 1,140,515.8 |
| 2015 | 16,722 | 1,411,718 | 118.45 | 16,722 | 1,208,010.3 |
| 2016 | 8,162 | 1,604,885 | 50.86 | 8,162 | 1,281,479.1 |
| 2017 | 9,266 | 1,574,705 | 58.84 | 9,266 | 1,357,518.3 |
| 2018 | 10,486 | 1,653,197 | 63.43 | 10,486 | 1,422,608.0 |
| 2019 | 10,837 | 1,677,384 | 64.61 | 10,837 | 1,451,787.4 |
| 2020 | 9,645 | 1,754,016 | 54.99 | 9,645 | 1,445,978.2 |
| 2021 | 10,896 | 1,669,648 | 65.26 | 10,896 | 1,478,547.4 |
| 2022 | 10,386 | 1,634,434 | 63.54 | 10,386 | 1,326,438.6 |
| 2023 | 9,657 | 1,274,758 | 75.76 | 9,657 | 1,122,250.6 |

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

*Female*

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2010 | 4,663 | 1,423,564 | 32.76 | 4,663 | 1,250,251.6 |
| 2011 | 4,691 | 1,461,329 | 32.1 | 4,691 | 1,277,633.4 |
| 2012 | 4,943 | 1,552,830 | 31.83 | 4,943 | 1,309,547.3 |
| 2013 | 4,997 | 1,463,534 | 34.14 | 4,997 | 1,293,361.7 |
| 2014 | 5,870 | 1,474,542 | 39.81 | 5,870 | 1,294,996.9 |
| 2015 | 5,594 | 1,570,509 | 35.62 | 5,594 | 1,365,990.3 |
| 2016 | 5,782 | 1,757,337 | 32.9 | 5,782 | 1,428,803.3 |
| 2017 | 5,973 | 1,727,900 | 34.57 | 5,973 | 1,500,926.7 |
| 2018 | 6,202 | 1,820,383 | 34.07 | 6,202 | 1,577,833.2 |
| 2019 | 5,891 | 1,851,310 | 31.82 | 5,891 | 1,613,358.8 |
| 2020 | 5,313 | 1,938,921 | 27.4 | 5,313 | 1,615,710.8 |
| 2021 | 5,643 | 1,857,615 | 30.38 | 5,643 | 1,659,650.8 |
| 2022 | 5,124 | 1,819,182 | 28.17 | 5,124 | 1,484,222.6 |
| 2023 | 4,522 | 1,401,588 | 32.26 | 4,522 | 1,245,332.0 |

*Male*

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2010 | 11,701 | 1,266,395 | 92.4 | 11,701 | 1,097,048.3 |
| 2011 | 11,815 | 1,298,603 | 90.98 | 11,815 | 1,124,240.6 |
| 2012 | 12,377 | 1,384,323 | 89.41 | 12,377 | 1,153,629.3 |
| 2013 | 13,061 | 1,306,576 | 99.96 | 13,061 | 1,143,297.8 |
| 2014 | 15,155 | 1,318,418 | 114.95 | 15,155 | 1,143,841.9 |
| 2015 | 14,781 | 1,412,830 | 104.62 | 14,781 | 1,211,457.1 |
| 2016 | 15,133 | 1,595,415 | 94.85 | 15,133 | 1,272,709.6 |

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2017 | 15,983 | 1,563,664 | 102.22 | 15,983 | 1,340,774.1 |
| 2018 | 16,490 | 1,642,335 | 100.41 | 16,490 | 1,406,275.1 |
| 2019 | 15,968 | 1,666,090 | 95.84 | 15,968 | 1,436,136.7 |
| 2020 | 14,845 | 1,744,079 | 85.12 | 14,845 | 1,431,305.6 |
| 2021 | 15,413 | 1,660,631 | 92.81 | 15,413 | 1,465,424.1 |
| 2022 | 14,237 | 1,625,220 | 87.6 | 14,237 | 1,315,025.9 |
| 2023 | 12,681 | 1,266,650 | 100.11 | 12,681 | 1,111,552.5 |
| *Incident history of sudden cardiac arrest* | | | | | |
| *Female* | | | | | |
| 2010 | 831 | 1,427,163 | 5.82 | 831 | 1,257,281.0 |
| 2011 | 920 | 1,464,921 | 6.28 | 920 | 1,284,705.9 |
| 2012 | 978 | 1,556,718 | 6.28 | 978 | 1,316,743.1 |
| 2013 | 987 | 1,467,323 | 6.73 | 987 | 1,300,636.7 |
| 2014 | 1,097 | 1,478,620 | 7.42 | 1,097 | 1,302,992.3 |
| 2015 | 1,105 | 1,575,304 | 7.01 | 1,105 | 1,374,489.2 |
| 2016 | 1,152 | 1,762,978 | 6.53 | 1,152 | 1,437,959.8 |
| 2017 | 1,297 | 1,733,535 | 7.48 | 1,297 | 1,510,457.8 |
| 2018 | 1,386 | 1,826,114 | 7.59 | 1,386 | 1,587,743.0 |
| 2019 | 1,457 | 1,857,136 | 7.85 | 1,457 | 1,622,876.3 |
| 2020 | 1,490 | 1,944,494 | 7.66 | 1,490 | 1,624,700.1 |
| 2021 | 1,661 | 1,862,667 | 8.92 | 1,661 | 1,668,385.0 |
| 2022 | 1,409 | 1,824,542 | 7.72 | 1,409 | 1,492,305.6 |
| 2023 | 1,189 | 1,406,213 | 8.46 | 1,189 | 1,252,845.1 |
| *Male* | | | | | |
| 2010 | 1,292 | 1,275,517 | 10.13 | 1,292 | 1,115,202.2 |
| 2011 | 1,403 | 1,307,830 | 10.73 | 1,403 | 1,142,520.3 |
| 2012 | 1,474 | 1,394,224 | 10.57 | 1,474 | 1,172,300.8 |
| 2013 | 1,597 | 1,316,489 | 12.13 | 1,597 | 1,162,532.8 |
| 2014 | 1,637 | 1,329,670 | 12.31 | 1,637 | 1,165,533.6 |
| 2015 | 1,671 | 1,425,869 | 11.72 | 1,671 | 1,234,918.2 |
| 2016 | 1,852 | 1,611,155 | 11.49 | 1,852 | 1,297,972.7 |
| 2017 | 2,033 | 1,579,126 | 12.87 | 2,033 | 1,367,423.3 |
| 2018 | 2,186 | 1,658,387 | 13.18 | 2,186 | 1,433,845.1 |
| 2019 | 2,211 | 1,682,869 | 13.14 | 2,211 | 1,463,848.9 |
| 2020 | 2,286 | 1,760,192 | 12.99 | 2,286 | 1,457,601.8 |
| 2021 | 2,542 | 1,675,105 | 15.18 | 2,542 | 1,490,863.1 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2022 | 2,212 | 1,640,334 | 13.49 | 2,212 | 1,338,616.2 |
| 2023 | 1,848 | 1,279,687 | 14.44 | 1,848 | 1,133,456.0 |
| **Prevalent Capture of Confounding Conditions** | | | | | |
| *Prevalent obesity* | | | | | |
| *Female* | | | | | |
| 2010 | 96,169 | 1,427,308 | 673.78 | 211,739 | 1,257,684.7 |
| 2011 | 101,456 | 1,465,075 | 692.5 | 218,315 | 1,285,153.2 |
| 2012 | 110,957 | 1,556,937 | 712.66 | 243,953 | 1,317,251.5 |
| 2013 | 121,459 | 1,467,533 | 827.64 | 267,083 | 1,301,184.3 |
| 2014 | 134,471 | 1,478,854 | 909.29 | 305,293 | 1,303,584.1 |
| 2015 | 149,179 | 1,575,575 | 946.82 | 347,459 | 1,375,117.1 |
| 2016 | 156,135 | 1,763,314 | 885.46 | 372,066 | 1,438,587.0 |
| 2017 | 174,387 | 1,733,883 | 1,005.76 | 424,942 | 1,511,204.7 |
| 2018 | 197,205 | 1,826,526 | 1,079.67 | 480,320 | 1,588,574.9 |
| 2019 | 204,012 | 1,857,575 | 1,098.27 | 493,926 | 1,623,760.9 |
| 2020 | 188,534 | 1,944,994 | 969.33 | 465,659 | 1,625,621.4 |
| 2021 | 220,344 | 1,863,171 | 1,182.63 | 560,857 | 1,669,359.9 |
| 2022 | 208,786 | 1,825,111 | 1,143.96 | 520,584 | 1,493,200.3 |
| 2023 | 177,902 | 1,406,561 | 1,264.80 | 499,330 | 1,253,594.2 |
| *Male* | | | | | |
| 2010 | 58,376 | 1,275,767 | 457.58 | 108,408 | 1,115,847.3 |
| 2011 | 63,933 | 1,308,100 | 488.75 | 117,119 | 1,143,243.1 |
| 2012 | 70,838 | 1,394,591 | 507.95 | 132,512 | 1,173,114.4 |
| 2013 | 78,276 | 1,316,873 | 594.41 | 148,081 | 1,163,436.2 |
| 2014 | 86,267 | 1,330,120 | 648.57 | 168,580 | 1,166,554.3 |
| 2015 | 95,968 | 1,426,391 | 672.8 | 189,201 | 1,236,018.9 |
| 2016 | 102,011 | 1,611,781 | 632.91 | 206,023 | 1,299,124.2 |
| 2017 | 113,916 | 1,579,755 | 721.1 | 230,562 | 1,368,706.7 |
| 2018 | 128,843 | 1,659,075 | 776.6 | 259,323 | 1,435,220.9 |
| 2019 | 135,094 | 1,683,635 | 802.39 | 271,312 | 1,465,355.4 |
| 2020 | 121,558 | 1,761,087 | 690.24 | 249,990 | 1,459,185.7 |
| 2021 | 143,266 | 1,675,961 | 854.83 | 295,994 | 1,492,497.1 |
| 2022 | 131,905 | 1,641,312 | 803.66 | 265,195 | 1,340,134.9 |
| 2023 | 112,922 | 1,280,401 | 881.93 | 239,336 | 1,134,839.3 |
| *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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2010 | 16,857 | 1,427,308 | 118.1 | 23,119 | 1,257,684.7 |
| 2011 | 18,567 | 1,465,075 | 126.73 | 24,148 | 1,285,153.2 |
| 2012 | 20,492 | 1,556,937 | 131.62 | 26,709 | 1,317,251.5 |
| 2013 | 20,584 | 1,467,533 | 140.26 | 26,437 | 1,301,184.3 |
| 2014 | 21,975 | 1,478,854 | 148.59 | 28,785 | 1,303,584.1 |
| 2015 | 24,676 | 1,575,575 | 156.62 | 32,458 | 1,375,117.1 |
| 2016 | 26,274 | 1,763,314 | 149 | 35,708 | 1,438,587.0 |
| 2017 | 32,661 | 1,733,883 | 188.37 | 45,632 | 1,511,204.7 |
| 2018 | 37,363 | 1,826,526 | 204.56 | 51,827 | 1,588,574.9 |
| 2019 | 37,470 | 1,857,575 | 201.71 | 52,128 | 1,623,760.9 |
| 2020 | 28,833 | 1,944,994 | 148.24 | 39,737 | 1,625,621.4 |
| 2021 | 34,892 | 1,863,171 | 187.27 | 47,547 | 1,669,359.9 |
| 2022 | 29,238 | 1,825,111 | 160.2 | 41,262 | 1,493,200.3 |
| 2023 | 27,096 | 1,406,561 | 192.64 | 40,925 | 1,253,594.2 |
| *Male* | | | | | |
| 2010 | 12,634 | 1,275,767 | 99.03 | 16,437 | 1,115,847.3 |
| 2011 | 14,405 | 1,308,100 | 110.12 | 17,740 | 1,143,243.1 |
| 2012 | 15,089 | 1,394,591 | 108.2 | 18,551 | 1,173,114.4 |
| 2013 | 15,918 | 1,316,873 | 120.88 | 19,510 | 1,163,436.2 |
| 2014 | 16,895 | 1,330,120 | 127.02 | 20,593 | 1,166,554.3 |
| 2015 | 19,296 | 1,426,391 | 135.28 | 23,863 | 1,236,018.9 |
| 2016 | 20,635 | 1,611,781 | 128.03 | 25,919 | 1,299,124.2 |
| 2017 | 26,025 | 1,579,755 | 164.74 | 34,397 | 1,368,706.7 |
| 2018 | 30,903 | 1,659,075 | 186.27 | 40,833 | 1,435,220.9 |
| 2019 | 31,872 | 1,683,635 | 189.3 | 41,348 | 1,465,355.4 |
| 2020 | 24,251 | 1,761,087 | 137.7 | 30,610 | 1,459,185.7 |
| 2021 | 29,805 | 1,675,961 | 177.84 | 37,786 | 1,492,497.1 |
| 2022 | 24,277 | 1,641,312 | 147.91 | 31,411 | 1,340,134.9 |
| 2023 | 20,027 | 1,280,401 | 156.41 | 26,906 | 1,134,839.3 |
| *Prevalent smoking* | | | | | |
| *Female* | | | | | |
| 2010 | 83,584 | 1,427,308 | 585.61 | 171,396 | 1,257,684.7 |
| 2011 | 87,229 | 1,465,075 | 595.39 | 181,468 | 1,285,153.2 |
| 2012 | 91,008 | 1,556,937 | 584.53 | 192,707 | 1,317,251.5 |
| 2013 | 93,652 | 1,467,533 | 638.16 | 200,060 | 1,301,184.3 |
| 2014 | 96,754 | 1,478,854 | 654.25 | 210,459 | 1,303,584.1 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2015 | 105,644 | 1,575,575 | 670.51 | 237,439 | 1,375,117.1 |
| 2016 | 111,924 | 1,763,314 | 634.74 | 262,012 | 1,438,587.0 |
| 2017 | 121,953 | 1,733,883 | 703.35 | 294,232 | 1,511,204.7 |
| 2018 | 132,157 | 1,826,526 | 723.54 | 335,842 | 1,588,574.9 |
| 2019 | 134,739 | 1,857,575 | 725.35 | 349,961 | 1,623,760.9 |
| 2020 | 114,505 | 1,944,994 | 588.72 | 293,410 | 1,625,621.4 |
| 2021 | 122,035 | 1,863,171 | 654.99 | 318,713 | 1,669,359.9 |
| 2022 | 114,333 | 1,825,111 | 626.44 | 288,552 | 1,493,200.3 |
| 2023 | 100,125 | 1,406,561 | 711.84 | 247,202 | 1,253,594.2 |
| *Male* | | | | | |
| 2010 | 77,786 | 1,275,767 | 609.72 | 146,286 | 1,115,847.3 |
| 2011 | 83,386 | 1,308,100 | 637.46 | 157,996 | 1,143,243.1 |
| 2012 | 88,899 | 1,394,591 | 637.46 | 172,723 | 1,173,114.4 |
| 2013 | 91,567 | 1,316,873 | 695.34 | 182,277 | 1,163,436.2 |
| 2014 | 96,843 | 1,330,120 | 728.08 | 196,173 | 1,166,554.3 |
| 2015 | 107,494 | 1,426,391 | 753.61 | 223,928 | 1,236,018.9 |
| 2016 | 116,448 | 1,611,781 | 722.48 | 256,291 | 1,299,124.2 |
| 2017 | 128,177 | 1,579,755 | 811.37 | 291,197 | 1,368,706.7 |
| 2018 | 138,402 | 1,659,075 | 834.21 | 330,497 | 1,435,220.9 |
| 2019 | 142,343 | 1,683,635 | 845.45 | 348,310 | 1,465,355.4 |
| 2020 | 120,500 | 1,761,087 | 684.24 | 293,618 | 1,459,185.7 |
| 2021 | 125,682 | 1,675,961 | 749.91 | 313,540 | 1,492,497.1 |
| 2022 | 116,965 | 1,641,312 | 712.63 | 286,417 | 1,340,134.9 |
| 2023 | 102,238 | 1,280,401 | 798.48 | 245,984 | 1,134,839.3 |
| *Prevalent alcohol abuse or dependence* | | | | | |
| *Female* | | | | | |
| 2010 | 11,825 | 1,427,308 | 82.85 | 52,259 | 1,257,684.7 |
| 2011 | 12,050 | 1,465,075 | 82.25 | 55,962 | 1,285,153.2 |
| 2012 | 12,960 | 1,556,937 | 83.24 | 58,402 | 1,317,251.5 |
| 2013 | 13,550 | 1,467,533 | 92.33 | 60,487 | 1,301,184.3 |
| 2014 | 13,654 | 1,478,854 | 92.33 | 62,593 | 1,303,584.1 |
| 2015 | 14,415 | 1,575,575 | 91.49 | 68,705 | 1,375,117.1 |
| 2016 | 14,568 | 1,763,314 | 82.62 | 69,951 | 1,438,587.0 |
| 2017 | 15,943 | 1,733,883 | 91.95 | 77,639 | 1,511,204.7 |
| 2018 | 18,069 | 1,826,526 | 98.93 | 92,858 | 1,588,574.9 |
| 2019 | 19,113 | 1,857,575 | 102.89 | 100,056 | 1,623,760.9 |

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2020 | 18,257 | 1,944,994 | 93.87 | 110,168 | 1,625,621.4 |
| 2021 | 20,289 | 1,863,171 | 108.89 | 126,298 | 1,669,359.9 |
| 2022 | 19,812 | 1,825,111 | 108.55 | 123,312 | 1,493,200.3 |
| 2023 | 19,945 | 1,406,561 | 141.8 | 127,439 | 1,253,594.2 |
| *Male* | | | | | |
| 2010 | 20,736 | 1,275,767 | 162.54 | 85,164 | 1,115,847.3 |
| 2011 | 20,950 | 1,308,100 | 160.16 | 90,693 | 1,143,243.1 |
| 2012 | 22,838 | 1,394,591 | 163.76 | 95,830 | 1,173,114.4 |
| 2013 | 23,138 | 1,316,873 | 175.7 | 97,213 | 1,163,436.2 |
| 2014 | 23,134 | 1,330,120 | 173.92 | 96,946 | 1,166,554.3 |
| 2015 | 23,777 | 1,426,391 | 166.69 | 103,025 | 1,236,018.9 |
| 2016 | 23,884 | 1,611,781 | 148.18 | 106,759 | 1,299,124.2 |
| 2017 | 25,384 | 1,579,755 | 160.68 | 114,832 | 1,368,706.7 |
| 2018 | 27,713 | 1,659,075 | 167.04 | 137,506 | 1,435,220.9 |
| 2019 | 28,901 | 1,683,635 | 171.66 | 147,708 | 1,465,355.4 |
| 2020 | 27,662 | 1,761,087 | 157.07 | 152,519 | 1,459,185.7 |
| 2021 | 30,831 | 1,675,961 | 183.96 | 174,065 | 1,492,497.1 |
| 2022 | 29,855 | 1,641,312 | 181.9 | 172,192 | 1,340,134.9 |
| 2023 | 29,454 | 1,280,401 | 230.04 | 176,263 | 1,134,839.3 |
| *Prevalent drug abuse or dependence* | | | | | |
| *Female* | | | | | |
| 2010 | 16,034 | 1,427,308 | 112.34 | 37,327 | 1,257,684.7 |
| 2011 | 21,659 | 1,465,075 | 147.84 | 50,873 | 1,285,153.2 |
| 2012 | 23,116 | 1,556,937 | 148.47 | 56,606 | 1,317,251.5 |
| 2013 | 24,050 | 1,467,533 | 163.88 | 64,471 | 1,301,184.3 |
| 2014 | 24,241 | 1,478,854 | 163.92 | 63,143 | 1,303,584.1 |
| 2015 | 23,140 | 1,575,575 | 146.87 | 56,923 | 1,375,117.1 |
| 2016 | 8,805 | 1,763,314 | 49.93 | 20,172 | 1,438,587.0 |
| 2017 | 10,013 | 1,733,883 | 57.75 | 23,710 | 1,511,204.7 |
| 2018 | 11,824 | 1,826,526 | 64.73 | 30,231 | 1,588,574.9 |
| 2019 | 12,648 | 1,857,575 | 68.09 | 32,737 | 1,623,760.9 |
| 2020 | 12,127 | 1,944,994 | 62.35 | 32,888 | 1,625,621.4 |
| 2021 | 14,162 | 1,863,171 | 76.01 | 39,194 | 1,669,359.9 |
| 2022 | 13,696 | 1,825,111 | 75.04 | 37,549 | 1,493,200.3 |
| 2023 | 12,641 | 1,406,561 | 89.87 | 36,786 | 1,253,594.2 |
| *Male* | | | | | |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2010 | 17,290 | 1,275,767 | 135.53 | 44,023 | 1,115,847.3 |
| 2011 | 23,774 | 1,308,100 | 181.74 | 57,506 | 1,143,243.1 |
| 2012 | 25,786 | 1,394,591 | 184.9 | 64,476 | 1,173,114.4 |
| 2013 | 26,771 | 1,316,873 | 203.29 | 69,838 | 1,163,436.2 |
| 2014 | 27,708 | 1,330,120 | 208.31 | 70,039 | 1,166,554.3 |
| 2015 | 26,597 | 1,426,391 | 186.46 | 62,917 | 1,236,018.9 |
| 2016 | 10,776 | 1,611,781 | 66.86 | 26,912 | 1,299,124.2 |
| 2017 | 12,024 | 1,579,755 | 76.11 | 28,497 | 1,368,706.7 |
| 2018 | 13,756 | 1,659,075 | 82.91 | 35,271 | 1,435,220.9 |
| 2019 | 14,487 | 1,683,635 | 86.05 | 37,120 | 1,465,355.4 |
| 2020 | 13,319 | 1,761,087 | 75.63 | 36,318 | 1,459,185.7 |
| 2021 | 14,994 | 1,675,961 | 89.47 | 40,633 | 1,492,497.1 |
| 2022 | 14,661 | 1,641,312 | 89.32 | 40,508 | 1,340,134.9 |
| 2023 | 13,429 | 1,280,401 | 104.88 | 40,837 | 1,134,839.3 |
| *Prevalent history of CABG or PTCA* | | | | | |
| *Female* | | | | | |
| 2010 | 7,971 | 1,427,308 | 55.85 | 23,193 | 1,257,684.7 |
| 2011 | 7,981 | 1,465,075 | 54.48 | 22,107 | 1,285,153.2 |
| 2012 | 8,338 | 1,556,937 | 53.55 | 25,074 | 1,317,251.5 |
| 2013 | 8,587 | 1,467,533 | 58.51 | 26,644 | 1,301,184.3 |
| 2014 | 9,681 | 1,478,854 | 65.46 | 30,490 | 1,303,584.1 |
| 2015 | 10,074 | 1,575,575 | 63.94 | 31,947 | 1,375,117.1 |
| 2016 | 10,816 | 1,763,314 | 61.34 | 38,056 | 1,438,587.0 |
| 2017 | 11,326 | 1,733,883 | 65.32 | 41,747 | 1,511,204.7 |
| 2018 | 11,770 | 1,826,526 | 64.44 | 43,452 | 1,588,574.9 |
| 2019 | 11,450 | 1,857,575 | 61.64 | 42,589 | 1,623,760.9 |
| 2020 | 10,477 | 1,944,994 | 53.87 | 38,703 | 1,625,621.4 |
| 2021 | 10,625 | 1,863,171 | 57.03 | 42,206 | 1,669,359.9 |
| 2022 | 10,021 | 1,825,111 | 54.91 | 36,811 | 1,493,200.3 |
| 2023 | 9,023 | 1,406,561 | 64.15 | 34,100 | 1,253,594.2 |
| *Male* | | | | | |
| 2010 | 19,969 | 1,275,767 | 156.53 | 56,941 | 1,115,847.3 |
| 2011 | 20,137 | 1,308,100 | 153.94 | 56,783 | 1,143,243.1 |
| 2012 | 20,893 | 1,394,591 | 149.81 | 64,256 | 1,173,114.4 |
| 2013 | 22,145 | 1,316,873 | 168.16 | 66,894 | 1,163,436.2 |
| 2014 | 25,514 | 1,330,120 | 191.82 | 77,696 | 1,166,554.3 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2015 | 26,839 | 1,426,391 | 188.16 | 84,441 | 1,236,018.9 |
| 2016 | 28,673 | 1,611,781 | 177.9 | 96,308 | 1,299,124.2 |
| 2017 | 30,442 | 1,579,755 | 192.7 | 105,878 | 1,368,706.7 |
| 2018 | 31,490 | 1,659,075 | 189.8 | 112,004 | 1,435,220.9 |
| 2019 | 31,704 | 1,683,635 | 188.31 | 116,634 | 1,465,355.4 |
| 2020 | 29,268 | 1,761,087 | 166.19 | 101,147 | 1,459,185.7 |
| 2021 | 29,136 | 1,675,961 | 173.85 | 107,661 | 1,492,497.1 |
| 2022 | 27,604 | 1,641,312 | 168.18 | 98,105 | 1,340,134.9 |
| 2023 | 25,207 | 1,280,401 | 196.87 | 89,250 | 1,134,839.3 |
| *Prevalent history of sudden cardiac arrest* | | | | | |
| *Female* | | | | | |
| 2010 | 912 | 1,427,308 | 6.39 | 1,355 | 1,257,684.7 |
| 2011 | 1,016 | 1,465,075 | 6.93 | 1,631 | 1,285,153.2 |
| 2012 | 1,092 | 1,556,937 | 7.01 | 1,742 | 1,317,251.5 |
| 2013 | 1,122 | 1,467,533 | 7.65 | 1,867 | 1,301,184.3 |
| 2014 | 1,236 | 1,478,854 | 8.36 | 2,492 | 1,303,584.1 |
| 2015 | 1,289 | 1,575,575 | 8.18 | 2,310 | 1,375,117.1 |
| 2016 | 1,361 | 1,763,314 | 7.72 | 2,522 | 1,438,587.0 |
| 2017 | 1,518 | 1,733,883 | 8.75 | 2,852 | 1,511,204.7 |
| 2018 | 1,654 | 1,826,526 | 9.06 | 3,290 | 1,588,574.9 |
| 2019 | 1,753 | 1,857,575 | 9.44 | 3,393 | 1,623,760.9 |
| 2020 | 1,781 | 1,944,994 | 9.16 | 3,599 | 1,625,621.4 |
| 2021 | 1,971 | 1,863,171 | 10.58 | 4,262 | 1,669,359.9 |
| 2022 | 1,735 | 1,825,111 | 9.51 | 3,687 | 1,493,200.3 |
| 2023 | 1,459 | 1,406,561 | 10.37 | 3,117 | 1,253,594.2 |
| *Male* | | | | | |
| 2010 | 1,439 | 1,275,767 | 11.28 | 2,364 | 1,115,847.3 |
| 2011 | 1,584 | 1,308,100 | 12.11 | 2,402 | 1,143,243.1 |
| 2012 | 1,696 | 1,394,591 | 12.16 | 2,893 | 1,173,114.4 |
| 2013 | 1,864 | 1,316,873 | 14.15 | 3,284 | 1,163,436.2 |
| 2014 | 1,973 | 1,330,120 | 14.83 | 3,689 | 1,166,554.3 |
| 2015 | 2,047 | 1,426,391 | 14.35 | 4,088 | 1,236,018.9 |
| 2016 | 2,247 | 1,611,781 | 13.94 | 4,717 | 1,299,124.2 |
| 2017 | 2,482 | 1,579,755 | 15.71 | 5,206 | 1,368,706.7 |
| 2018 | 2,672 | 1,659,075 | 16.11 | 5,802 | 1,435,220.9 |
| 2019 | 2,754 | 1,683,635 | 16.36 | 6,455 | 1,465,355.4 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2020 | 2,869 | 1,761,087 | 16.29 | 6,156 | 1,459,185.7 |
| 2021 | 3,135 | 1,675,961 | 18.71 | 7,080 | 1,492,497.1 |
| 2022 | 2,812 | 1,641,312 | 17.13 | 6,373 | 1,340,134.9 |
| 2023 | 2,380 | 1,280,401 | 18.59 | 6,114 | 1,134,839.3 |
| **Capture of Other Confounding Covariates[2]** | | | | | |

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

*Female*

| | | | | | |
|---|---|---|---|---|---|
| 2010 | 24,269 | 1,427,308 | 170.03 | 31,736 | 1,257,684.7 |
| 2011 | 35,074 | 1,465,075 | 239.4 | 47,276 | 1,285,153.2 |
| 2012 | 46,572 | 1,556,937 | 299.13 | 63,934 | 1,317,251.5 |
| 2013 | 59,400 | 1,467,533 | 404.76 | 86,121 | 1,301,184.3 |
| 2014 | 77,100 | 1,478,854 | 521.35 | 126,448 | 1,303,584.1 |
| 2015 | 90,218 | 1,575,575 | 572.6 | 155,591 | 1,375,117.1 |
| 2016 | 102,122 | 1,763,314 | 579.15 | 184,802 | 1,438,587.0 |
| 2017 | 130,027 | 1,733,883 | 749.92 | 240,257 | 1,511,204.7 |
| 2018 | 154,787 | 1,826,526 | 847.44 | 287,140 | 1,588,574.9 |
| 2019 | 161,650 | 1,857,575 | 870.22 | 312,048 | 1,623,760.9 |
| 2020 | 146,025 | 1,944,994 | 750.77 | 289,298 | 1,625,621.4 |
| 2021 | 175,229 | 1,863,171 | 940.49 | 360,541 | 1,669,359.9 |
| 2022 | 172,592 | 1,825,111 | 945.65 | 334,479 | 1,493,200.3 |
| 2023 | 151,982 | 1,406,561 | 1,080.52 | 300,788 | 1,253,594.2 |

*Male*

| | | | | | |
|---|---|---|---|---|---|
| 2010 | 16,629 | 1,275,767 | 130.35 | 19,843 | 1,115,847.3 |
| 2011 | 24,491 | 1,308,100 | 187.23 | 30,209 | 1,143,243.1 |
| 2012 | 32,124 | 1,394,591 | 230.35 | 40,626 | 1,173,114.4 |
| 2013 | 40,438 | 1,316,873 | 307.08 | 53,537 | 1,163,436.2 |
| 2014 | 50,708 | 1,330,120 | 381.23 | 74,498 | 1,166,554.3 |
| 2015 | 59,897 | 1,426,391 | 419.92 | 91,230 | 1,236,018.9 |
| 2016 | 68,139 | 1,611,781 | 422.76 | 110,037 | 1,299,124.2 |
| 2017 | 89,092 | 1,579,755 | 563.96 | 144,882 | 1,368,706.7 |
| 2018 | 109,293 | 1,659,075 | 658.76 | 176,445 | 1,435,220.9 |
| 2019 | 114,753 | 1,683,635 | 681.58 | 190,313 | 1,465,355.4 |
| 2020 | 101,062 | 1,761,087 | 573.86 | 171,321 | 1,459,185.7 |
| 2021 | 124,018 | 1,675,961 | 739.98 | 210,633 | 1,492,497.1 |
| 2022 | 117,686 | 1,641,312 | 717.02 | 193,438 | 1,340,134.9 |
| 2023 | 104,318 | 1,280,401 | 814.73 | 172,411 | 1,134,839.3 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| *Has diagnosis code that indicates a range of BMI that classifies as obesity* | | | | | |
| *Female* | | | | | |
| 2010 | 16,216 | 1,427,308 | 113.61 | 22,907 | 1,257,684.7 |
| 2011 | 24,129 | 1,465,075 | 164.69 | 34,356 | 1,285,153.2 |
| 2012 | 32,218 | 1,556,937 | 206.93 | 46,390 | 1,317,251.5 |
| 2013 | 42,737 | 1,467,533 | 291.22 | 65,551 | 1,301,184.3 |
| 2014 | 59,251 | 1,478,854 | 400.65 | 103,483 | 1,303,584.1 |
| 2015 | 69,931 | 1,575,575 | 443.84 | 129,486 | 1,375,117.1 |
| 2016 | 79,383 | 1,763,314 | 450.19 | 153,545 | 1,438,587.0 |
| 2017 | 97,857 | 1,733,883 | 564.38 | 192,176 | 1,511,204.7 |
| 2018 | 113,904 | 1,826,526 | 623.61 | 226,715 | 1,588,574.9 |
| 2019 | 122,987 | 1,857,575 | 662.08 | 253,017 | 1,623,760.9 |
| 2020 | 118,773 | 1,944,994 | 610.66 | 247,602 | 1,625,621.4 |
| 2021 | 141,489 | 1,863,171 | 759.4 | 308,650 | 1,669,359.9 |
| 2022 | 140,565 | 1,825,111 | 770.17 | 285,220 | 1,493,200.3 |
| 2023 | 120,477 | 1,406,561 | 856.54 | 251,982 | 1,253,594.2 |
| *Male* | | | | | |
| 2010 | 9,256 | 1,275,767 | 72.55 | 12,016 | 1,115,847.3 |
| 2011 | 14,419 | 1,308,100 | 110.23 | 18,832 | 1,143,243.1 |
| 2012 | 19,845 | 1,394,591 | 142.3 | 26,745 | 1,173,114.4 |
| 2013 | 25,960 | 1,316,873 | 197.13 | 37,307 | 1,163,436.2 |
| 2014 | 35,381 | 1,330,120 | 266 | 57,013 | 1,166,554.3 |
| 2015 | 43,067 | 1,426,391 | 301.93 | 71,560 | 1,236,018.9 |
| 2016 | 49,366 | 1,611,781 | 306.28 | 86,727 | 1,299,124.2 |
| 2017 | 63,326 | 1,579,755 | 400.86 | 109,945 | 1,368,706.7 |
| 2018 | 74,782 | 1,659,075 | 450.75 | 130,323 | 1,435,220.9 |
| 2019 | 81,527 | 1,683,635 | 484.23 | 145,717 | 1,465,355.4 |
| 2020 | 77,398 | 1,761,087 | 439.49 | 140,181 | 1,459,185.7 |
| 2021 | 93,831 | 1,675,961 | 559.86 | 171,652 | 1,492,497.1 |
| 2022 | 89,686 | 1,641,312 | 546.43 | 156,263 | 1,340,134.9 |
| 2023 | 78,581 | 1,280,401 | 613.72 | 137,710 | 1,134,839.3 |
| *Has diagnosis code that indicates a range of BMI that classifies as overweight* | | | | | |
| *Female* | | | | | |
| 2010 | 2,463 | 1,427,308 | 17.26 | 2,819 | 1,257,684.7 |
| 2011 | 4,069 | 1,465,075 | 27.77 | 4,672 | 1,285,153.2 |
| 2012 | 5,774 | 1,556,937 | 37.09 | 6,752 | 1,317,251.5 |

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2013 | 6,258 | 1,467,533 | 42.64 | 7,391 | 1,301,184.3 |
| 2014 | 7,489 | 1,478,854 | 50.64 | 9,019 | 1,303,584.1 |
| 2015 | 10,284 | 1,575,575 | 65.27 | 12,331 | 1,375,117.1 |
| 2016 | 12,424 | 1,763,314 | 70.46 | 15,546 | 1,438,587.0 |
| 2017 | 17,421 | 1,733,883 | 100.47 | 23,285 | 1,511,204.7 |
| 2018 | 21,513 | 1,826,526 | 117.78 | 28,398 | 1,588,574.9 |
| 2019 | 17,731 | 1,857,575 | 95.45 | 25,006 | 1,623,760.9 |
| 2020 | 12,402 | 1,944,994 | 63.76 | 17,543 | 1,625,621.4 |
| 2021 | 15,030 | 1,863,171 | 80.67 | 21,276 | 1,669,359.9 |
| 2022 | 13,850 | 1,825,111 | 75.89 | 19,687 | 1,493,200.3 |
| 2023 | 14,418 | 1,406,561 | 102.51 | 20,396 | 1,253,594.2 |
| *Male* | | | | | |
| 2010 | 1,987 | 1,275,767 | 15.57 | 2,147 | 1,115,847.3 |
| 2011 | 3,479 | 1,308,100 | 26.6 | 3,838 | 1,143,243.1 |
| 2012 | 4,541 | 1,394,591 | 32.56 | 5,105 | 1,173,114.4 |
| 2013 | 5,178 | 1,316,873 | 39.32 | 5,886 | 1,163,436.2 |
| 2014 | 6,230 | 1,330,120 | 46.84 | 7,087 | 1,166,554.3 |
| 2015 | 8,746 | 1,426,391 | 61.32 | 10,065 | 1,236,018.9 |
| 2016 | 10,525 | 1,611,781 | 65.3 | 12,616 | 1,299,124.2 |
| 2017 | 15,043 | 1,579,755 | 95.22 | 19,747 | 1,368,706.7 |
| 2018 | 19,354 | 1,659,075 | 116.66 | 25,304 | 1,435,220.9 |
| 2019 | 15,931 | 1,683,635 | 94.62 | 21,209 | 1,465,355.4 |
| 2020 | 11,086 | 1,761,087 | 62.95 | 14,403 | 1,459,185.7 |
| 2021 | 13,512 | 1,675,961 | 80.62 | 17,568 | 1,492,497.1 |
| 2022 | 12,211 | 1,641,312 | 74.4 | 16,057 | 1,340,134.9 |
| 2023 | 11,684 | 1,280,401 | 91.25 | 15,422 | 1,134,839.3 |
| *Has non-missing value for height* | | | | | |
| *Female* | | | | | |
| 2010 | 675,307 | 1,427,308 | 4,731.33 | 1,447,898 | 1,257,684.7 |
| 2011 | 716,789 | 1,465,075 | 4,892.51 | 1,561,037 | 1,285,153.2 |
| 2012 | 745,537 | 1,556,937 | 4,788.49 | 1,674,813 | 1,317,251.5 |
| 2013 | 746,084 | 1,467,533 | 5,083.93 | 1,690,994 | 1,301,184.3 |
| 2014 | 735,713 | 1,478,854 | 4,974.89 | 1,632,963 | 1,303,584.1 |
| 2015 | 765,696 | 1,575,575 | 4,859.79 | 1,670,450 | 1,375,117.1 |
| 2016 | 785,142 | 1,763,314 | 4,452.65 | 1,684,705 | 1,438,587.0 |
| 2017 | 818,279 | 1,733,883 | 4,719.34 | 1,730,836 | 1,511,204.7 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2018 | 873,990 | 1,826,526 | 4,784.99 | 2,024,113 | 1,588,574.9 |
| 2019 | 908,140 | 1,857,575 | 4,888.85 | 2,225,426 | 1,623,760.9 |
| 2020 | 675,380 | 1,944,994 | 3,472.40 | 1,312,941 | 1,625,621.4 |
| 2021 | 807,038 | 1,863,171 | 4,331.53 | 1,689,185 | 1,669,359.9 |
| 2022 | 781,692 | 1,825,111 | 4,282.98 | 1,464,431 | 1,493,200.3 |
| 2023 | 554,491 | 1,406,561 | 3,942.18 | 942,086 | 1,253,594.2 |
| *Male* | | | | | |
| 2010 | 497,983 | 1,275,767 | 3,903.40 | 973,628 | 1,115,847.3 |
| 2011 | 539,223 | 1,308,100 | 4,122.18 | 1,072,752 | 1,143,243.1 |
| 2012 | 569,406 | 1,394,591 | 4,082.96 | 1,170,929 | 1,173,114.4 |
| 2013 | 574,595 | 1,316,873 | 4,363.33 | 1,185,975 | 1,163,436.2 |
| 2014 | 567,961 | 1,330,120 | 4,270.00 | 1,151,971 | 1,166,554.3 |
| 2015 | 590,962 | 1,426,391 | 4,143.06 | 1,171,703 | 1,236,018.9 |
| 2016 | 605,098 | 1,611,781 | 3,754.22 | 1,174,076 | 1,299,124.2 |
| 2017 | 628,402 | 1,579,755 | 3,977.84 | 1,206,192 | 1,368,706.7 |
| 2018 | 671,830 | 1,659,075 | 4,049.43 | 1,387,815 | 1,435,220.9 |
| 2019 | 703,041 | 1,683,635 | 4,175.73 | 1,525,897 | 1,465,355.4 |
| 2020 | 508,108 | 1,761,087 | 2,885.20 | 893,331 | 1,459,185.7 |
| 2021 | 605,062 | 1,675,961 | 3,610.24 | 1,134,615 | 1,492,497.1 |
| 2022 | 586,538 | 1,641,312 | 3,573.59 | 999,543 | 1,340,134.9 |
| 2023 | 428,194 | 1,280,401 | 3,344.22 | 679,997 | 1,134,839.3 |
| *Has non-missing value for weight* | | | | | |
| *Female* | | | | | |
| 2010 | 864,972 | 1,427,308 | 6,060.16 | 3,033,727 | 1,257,684.7 |
| 2011 | 879,793 | 1,465,075 | 6,005.11 | 3,069,717 | 1,285,153.2 |
| 2012 | 896,441 | 1,556,937 | 5,757.72 | 3,173,214 | 1,317,251.5 |
| 2013 | 898,220 | 1,467,533 | 6,120.61 | 3,200,402 | 1,301,184.3 |
| 2014 | 896,448 | 1,478,854 | 6,061.77 | 3,149,236 | 1,303,584.1 |
| 2015 | 941,087 | 1,575,575 | 5,972.97 | 3,253,585 | 1,375,117.1 |
| 2016 | 971,092 | 1,763,314 | 5,507.20 | 3,321,502 | 1,438,587.0 |
| 2017 | 1,018,857 | 1,733,883 | 5,876.16 | 3,464,643 | 1,511,204.7 |
| 2018 | 1,076,206 | 1,826,526 | 5,892.09 | 3,751,558 | 1,588,574.9 |
| 2019 | 1,120,450 | 1,857,575 | 6,031.79 | 3,972,519 | 1,623,760.9 |
| 2020 | 896,621 | 1,944,994 | 4,609.89 | 2,352,683 | 1,625,621.4 |
| 2021 | 1,011,354 | 1,863,171 | 5,428.13 | 2,907,062 | 1,669,359.9 |
| 2022 | 992,058 | 1,825,111 | 5,435.60 | 2,758,068 | 1,493,200.3 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2023 | 774,412 | 1,406,561 | 5,505.71 | 2,247,725 | 1,253,594.2 |
| *Male* | | | | | |
| 2010 | 659,928 | 1,275,767 | 5,172.79 | 1,933,038 | 1,115,847.3 |
| 2011 | 675,419 | 1,308,100 | 5,163.36 | 1,979,327 | 1,143,243.1 |
| 2012 | 692,517 | 1,394,591 | 4,965.74 | 2,067,125 | 1,173,114.4 |
| 2013 | 697,805 | 1,316,873 | 5,298.95 | 2,099,220 | 1,163,436.2 |
| 2014 | 697,274 | 1,330,120 | 5,242.19 | 2,085,357 | 1,166,554.3 |
| 2015 | 733,174 | 1,426,391 | 5,140.06 | 2,157,097 | 1,236,018.9 |
| 2016 | 755,547 | 1,611,781 | 4,687.65 | 2,187,081 | 1,299,124.2 |
| 2017 | 789,322 | 1,579,755 | 4,996.48 | 2,271,756 | 1,368,706.7 |
| 2018 | 833,030 | 1,659,075 | 5,021.05 | 2,464,004 | 1,435,220.9 |
| 2019 | 871,945 | 1,683,635 | 5,178.94 | 2,623,427 | 1,465,355.4 |
| 2020 | 669,410 | 1,761,087 | 3,801.12 | 1,515,805 | 1,459,185.7 |
| 2021 | 757,762 | 1,675,961 | 4,521.36 | 1,864,874 | 1,492,497.1 |
| 2022 | 746,292 | 1,641,312 | 4,546.92 | 1,807,919 | 1,340,134.9 |
| 2023 | 595,226 | 1,280,401 | 4,648.75 | 1,507,176 | 1,134,839.3 |

*Has non-missing values for both height and weight within +/- 6 months*

*Female*

| | | | | | |
|---|---|---|---|---|---|
| 2010 | 557,177 | 1,070,230 | 5,206.14 | 2,100,949 | 936,408.9 |
| 2011 | 589,942 | 1,104,186 | 5,342.78 | 2,202,400 | 967,474.1 |
| 2012 | 610,328 | 1,167,172 | 5,229.12 | 2,325,158 | 993,221.7 |
| 2013 | 614,123 | 1,120,881 | 5,478.93 | 2,348,750 | 992,553.7 |
| 2014 | 607,576 | 1,132,712 | 5,363.91 | 2,298,788 | 1,000,893.2 |
| 2015 | 632,716 | 1,209,479 | 5,231.31 | 2,349,381 | 1,053,996.9 |
| 2016 | 652,771 | 1,339,863 | 4,871.92 | 2,400,931 | 1,107,617.4 |
| 2017 | 681,158 | 1,332,989 | 5,110.00 | 2,500,970 | 1,163,094.0 |
| 2018 | 721,033 | 1,402,461 | 5,141.20 | 2,718,766 | 1,210,193.3 |
| 2019 | 740,311 | 1,418,279 | 5,219.78 | 2,865,135 | 1,235,251.5 |
| 2020 | 566,888 | 1,487,155 | 3,811.90 | 1,645,622 | 1,253,822.1 |
| 2021 | 659,603 | 1,446,553 | 4,559.83 | 2,112,371 | 1,282,528.1 |
| 2022 | 517,755 | 1,405,098 | 3,684.83 | 1,488,259 | 1,000,275.2 |
| 2023 | 329,166 | 1,044,383 | 3,151.77 | 728,222 | 489,755.3 |
| *Male* | | | | | |
| 2010 | 367,251 | 912,810 | 4,023.30 | 1,176,162 | 793,041.5 |
| 2011 | 399,255 | 943,784 | 4,230.36 | 1,265,162 | 823,244.9 |
| 2012 | 423,871 | 1,003,879 | 4,222.33 | 1,369,979 | 850,221.3 |

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2013 | 431,136 | 968,461 | 4,451.76 | 1,400,655 | 852,586.4 |
| 2014 | 427,794 | 979,235 | 4,368.66 | 1,384,445 | 860,605.2 |
| 2015 | 446,312 | 1,055,097 | 4,230.06 | 1,418,231 | 911,171.8 |
| 2016 | 459,548 | 1,180,431 | 3,893.05 | 1,435,824 | 963,029.3 |
| 2017 | 475,893 | 1,170,863 | 4,064.46 | 1,485,232 | 1,014,059.7 |
| 2018 | 506,672 | 1,226,601 | 4,130.70 | 1,629,189 | 1,054,008.7 |
| 2019 | 525,605 | 1,239,434 | 4,240.69 | 1,729,943 | 1,072,253.1 |
| 2020 | 382,404 | 1,293,260 | 2,956.90 | 966,646 | 1,080,449.1 |
| 2021 | 445,301 | 1,250,588 | 3,560.73 | 1,229,463 | 1,100,505.9 |
| 2022 | 354,528 | 1,215,828 | 2,915.94 | 893,229 | 869,461.3 |
| 2023 | 220,604 | 916,427 | 2,407.22 | 442,483 | 428,223.4 |

*Has BMI calculated from vitals is in the obesity range*

*Female*

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2010 | 215,546 | 1,070,230 | 2,014.02 | 824,957 | 936,408.9 |
| 2011 | 226,903 | 1,104,186 | 2,054.93 | 863,247 | 967,474.1 |
| 2012 | 234,849 | 1,167,172 | 2,012.12 | 915,540 | 993,221.7 |
| 2013 | 238,523 | 1,120,881 | 2,128.00 | 931,135 | 992,553.7 |
| 2014 | 239,719 | 1,132,712 | 2,116.33 | 925,468 | 1,000,893.2 |
| 2015 | 251,530 | 1,209,479 | 2,079.66 | 954,196 | 1,053,996.9 |
| 2016 | 262,416 | 1,339,863 | 1,958.53 | 986,892 | 1,107,617.4 |
| 2017 | 275,810 | 1,332,989 | 2,069.11 | 1,035,803 | 1,163,094.0 |
| 2018 | 295,053 | 1,402,461 | 2,103.82 | 1,141,770 | 1,210,193.3 |
| 2019 | 305,208 | 1,418,279 | 2,151.96 | 1,213,965 | 1,235,251.5 |
| 2020 | 241,614 | 1,487,155 | 1,624.67 | 711,552 | 1,253,822.1 |
| 2021 | 282,464 | 1,446,553 | 1,952.67 | 924,249 | 1,282,528.1 |
| 2022 | 214,807 | 1,405,098 | 1,528.77 | 619,943 | 1,000,275.2 |
| 2023 | 135,947 | 1,044,383 | 1,301.70 | 305,755 | 489,755.3 |

*Male*

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2010 | 147,190 | 912,810 | 1,612.49 | 460,597 | 793,041.5 |
| 2011 | 158,990 | 943,784 | 1,684.60 | 497,065 | 823,244.9 |
| 2012 | 168,426 | 1,003,879 | 1,677.75 | 538,381 | 850,221.3 |
| 2013 | 172,254 | 968,461 | 1,778.64 | 554,674 | 852,586.4 |
| 2014 | 172,628 | 979,235 | 1,762.89 | 552,737 | 860,605.2 |
| 2015 | 181,580 | 1,055,097 | 1,720.98 | 570,963 | 911,171.8 |
| 2016 | 188,132 | 1,180,431 | 1,593.76 | 582,554 | 963,029.3 |
| 2017 | 194,913 | 1,170,863 | 1,664.70 | 601,527 | 1,014,059.7 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2018 | 207,723 | 1,226,601 | 1,693.48 | 660,531 | 1,054,008.7 |
| 2019 | 215,557 | 1,239,434 | 1,739.16 | 701,170 | 1,072,253.1 |
| 2020 | 158,828 | 1,293,260 | 1,228.12 | 392,945 | 1,080,449.1 |
| 2021 | 183,283 | 1,250,588 | 1,465.57 | 493,383 | 1,100,505.9 |
| 2022 | 146,888 | 1,215,828 | 1,208.13 | 364,164 | 869,461.3 |
| 2023 | 91,283 | 916,427 | 996.07 | 179,277 | 428,223.4 |

*Has BMI calculated from vitals is in the overweight range*

*Female*

| | | | | | |
|---|---|---|---|---|---|
| 2010 | 193,399 | 1,070,230 | 1,807.08 | 603,824 | 936,408.9 |
| 2011 | 204,074 | 1,104,186 | 1,848.18 | 633,529 | 967,474.1 |
| 2012 | 211,258 | 1,167,172 | 1,810.00 | 667,672 | 993,221.7 |
| 2013 | 211,585 | 1,120,881 | 1,887.67 | 672,793 | 992,553.7 |
| 2014 | 208,634 | 1,132,712 | 1,841.90 | 653,589 | 1,000,893.2 |
| 2015 | 215,649 | 1,209,479 | 1,782.99 | 665,626 | 1,053,996.9 |
| 2016 | 223,379 | 1,339,863 | 1,667.18 | 684,382 | 1,107,617.4 |
| 2017 | 233,001 | 1,332,989 | 1,747.96 | 712,520 | 1,163,094.0 |
| 2018 | 246,988 | 1,402,461 | 1,761.10 | 770,703 | 1,210,193.3 |
| 2019 | 254,209 | 1,418,279 | 1,792.38 | 809,591 | 1,235,251.5 |
| 2020 | 188,755 | 1,487,155 | 1,269.24 | 468,615 | 1,253,822.1 |
| 2021 | 220,090 | 1,446,553 | 1,521.48 | 592,559 | 1,282,528.1 |
| 2022 | 167,876 | 1,405,098 | 1,194.76 | 416,316 | 1,000,275.2 |
| 2023 | 102,322 | 1,044,383 | 979.74 | 203,758 | 489,755.3 |

*Male*

| | | | | | |
|---|---|---|---|---|---|
| 2010 | 166,528 | 912,810 | 1,824.34 | 454,515 | 793,041.5 |
| 2011 | 180,265 | 943,784 | 1,910.02 | 487,943 | 823,244.9 |
| 2012 | 191,156 | 1,003,879 | 1,904.17 | 528,012 | 850,221.3 |
| 2013 | 193,794 | 968,461 | 2,001.05 | 536,423 | 852,586.4 |
| 2014 | 190,874 | 979,235 | 1,949.22 | 527,331 | 860,605.2 |
| 2015 | 196,831 | 1,055,097 | 1,865.53 | 535,996 | 911,171.8 |
| 2016 | 201,645 | 1,180,431 | 1,708.23 | 540,653 | 963,029.3 |
| 2017 | 208,281 | 1,170,863 | 1,778.87 | 558,233 | 1,014,059.7 |
| 2018 | 221,383 | 1,226,601 | 1,804.85 | 609,484 | 1,054,008.7 |
| 2019 | 229,498 | 1,239,434 | 1,851.64 | 644,241 | 1,072,253.1 |
| 2020 | 161,254 | 1,293,260 | 1,246.88 | 357,789 | 1,080,449.1 |
| 2021 | 188,856 | 1,250,588 | 1,510.14 | 454,415 | 1,100,505.9 |
| 2022 | 147,964 | 1,215,828 | 1,216.98 | 328,319 | 869,461.3 |

| | Members with an Index Date | Eligible Members[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2023 | 89,221 | 916,427 | 973.57 | 163,518 | 428,223.4 |
| *Has non-missing value for diastolic blood pressure* | | | | | |
| *Female* | | | | | |
| 2010 | 856,944 | 1,427,308 | 6,003.92 | 3,654,488 | 1,257,684.7 |
| 2011 | 876,055 | 1,465,075 | 5,979.59 | 3,733,863 | 1,285,153.2 |
| 2012 | 897,804 | 1,556,937 | 5,766.48 | 3,851,407 | 1,317,251.5 |
| 2013 | 901,736 | 1,467,533 | 6,144.57 | 3,902,012 | 1,301,184.3 |
| 2014 | 901,474 | 1,478,854 | 6,095.76 | 3,851,344 | 1,303,584.1 |
| 2015 | 949,114 | 1,575,575 | 6,023.92 | 4,014,518 | 1,375,117.1 |
| 2016 | 980,353 | 1,763,314 | 5,559.72 | 4,147,301 | 1,438,587.0 |
| 2017 | 1,030,468 | 1,733,883 | 5,943.12 | 4,368,613 | 1,511,204.7 |
| 2018 | 1,090,002 | 1,826,526 | 5,967.62 | 4,668,419 | 1,588,574.9 |
| 2019 | 1,132,303 | 1,857,575 | 6,095.60 | 4,855,997 | 1,623,760.9 |
| 2020 | 927,211 | 1,944,994 | 4,767.17 | 2,986,192 | 1,625,621.4 |
| 2021 | 1,032,028 | 1,863,171 | 5,539.09 | 3,639,842 | 1,669,359.9 |
| 2022 | 1,017,230 | 1,825,111 | 5,573.52 | 3,492,366 | 1,493,200.3 |
| 2023 | 794,985 | 1,406,561 | 5,651.98 | 2,922,636 | 1,253,594.2 |
| *Male* | | | | | |
| 2010 | 650,361 | 1,275,767 | 5,097.80 | 2,306,410 | 1,115,847.3 |
| 2011 | 668,528 | 1,308,100 | 5,110.68 | 2,385,328 | 1,143,243.1 |
| 2012 | 689,508 | 1,394,591 | 4,944.16 | 2,491,779 | 1,173,114.4 |
| 2013 | 695,084 | 1,316,873 | 5,278.29 | 2,540,213 | 1,163,436.2 |
| 2014 | 695,372 | 1,330,120 | 5,227.89 | 2,526,679 | 1,166,554.3 |
| 2015 | 734,192 | 1,426,391 | 5,147.20 | 2,644,486 | 1,236,018.9 |
| 2016 | 759,540 | 1,611,781 | 4,712.43 | 2,723,962 | 1,299,124.2 |
| 2017 | 797,603 | 1,579,755 | 5,048.90 | 2,864,062 | 1,368,706.7 |
| 2018 | 841,428 | 1,659,075 | 5,071.67 | 3,052,099 | 1,435,220.9 |
| 2019 | 877,367 | 1,683,635 | 5,211.15 | 3,183,585 | 1,465,355.4 |
| 2020 | 689,694 | 1,761,087 | 3,916.30 | 1,947,900 | 1,459,185.7 |
| 2021 | 772,324 | 1,675,961 | 4,608.25 | 2,353,813 | 1,492,497.1 |
| 2022 | 763,024 | 1,641,312 | 4,648.87 | 2,292,916 | 1,340,134.9 |
| 2023 | 609,683 | 1,280,401 | 4,761.66 | 1,961,676 | 1,134,839.3 |
| *Has non-missing value for systolic blood pressure* | | | | | |
| *Female* | | | | | |
| 2010 | 856,981 | 1,427,308 | 6,004.18 | 3,654,847 | 1,257,684.7 |
| 2011 | 876,077 | 1,465,075 | 5,979.74 | 3,734,068 | 1,285,153.2 |

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| 2012 | 897,810 | 1,556,937 | 5,766.51 | 3,851,526 | 1,317,251.5 |
| 2013 | 901,747 | 1,467,533 | 6,144.65 | 3,902,159 | 1,301,184.3 |
| 2014 | 901,480 | 1,478,854 | 6,095.80 | 3,851,459 | 1,303,584.1 |
| 2015 | 949,121 | 1,575,575 | 6,023.97 | 4,014,659 | 1,375,117.1 |
| 2016 | 980,369 | 1,763,314 | 5,559.81 | 4,147,494 | 1,438,587.0 |
| 2017 | 1,030,479 | 1,733,883 | 5,943.19 | 4,368,849 | 1,511,204.7 |
| 2018 | 1,090,014 | 1,826,526 | 5,967.69 | 4,668,698 | 1,588,574.9 |
| 2019 | 1,132,317 | 1,857,575 | 6,095.67 | 4,856,341 | 1,623,760.9 |
| 2020 | 927,218 | 1,944,994 | 4,767.20 | 2,986,347 | 1,625,621.4 |
| 2021 | 1,032,052 | 1,863,171 | 5,539.22 | 3,640,082 | 1,669,359.9 |
| 2022 | 1,017,250 | 1,825,111 | 5,573.63 | 3,492,650 | 1,493,200.3 |
| 2023 | 794,995 | 1,406,561 | 5,652.05 | 2,922,907 | 1,253,594.2 |
| *Male* | | | | | |
| 2010 | 650,394 | 1,275,767 | 5,098.06 | 2,306,594 | 1,115,847.3 |
| 2011 | 668,548 | 1,308,100 | 5,110.83 | 2,385,501 | 1,143,243.1 |
| 2012 | 689,518 | 1,394,591 | 4,944.23 | 2,491,921 | 1,173,114.4 |
| 2013 | 695,095 | 1,316,873 | 5,278.38 | 2,540,364 | 1,163,436.2 |
| 2014 | 695,385 | 1,330,120 | 5,227.99 | 2,526,822 | 1,166,554.3 |
| 2015 | 734,199 | 1,426,391 | 5,147.25 | 2,644,634 | 1,236,018.9 |
| 2016 | 759,557 | 1,611,781 | 4,712.53 | 2,724,183 | 1,299,124.2 |
| 2017 | 797,618 | 1,579,755 | 5,049.00 | 2,864,357 | 1,368,706.7 |
| 2018 | 841,447 | 1,659,075 | 5,071.78 | 3,052,393 | 1,435,220.9 |
| 2019 | 877,397 | 1,683,635 | 5,211.33 | 3,183,959 | 1,465,355.4 |
| 2020 | 689,715 | 1,761,087 | 3,916.42 | 1,948,140 | 1,459,185.7 |
| 2021 | 772,338 | 1,675,961 | 4,608.33 | 2,354,060 | 1,492,497.1 |
| 2022 | 763,051 | 1,641,312 | 4,649.03 | 2,293,139 | 1,340,134.9 |
| 2023 | 609,704 | 1,280,401 | 4,761.82 | 1,961,927 | 1,134,839.3 |

[1]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.

[2]Unlike earlier sections describing incident and prevalent capture of confounding conditions from diagnosis, procedure, and drug codes, this section captures additional prevalent conditions from demographic data (race and imputed race), diagnosis codes (BMI categories), and vitals data (remaining variables).

**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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| **Capture of Other Confounding Covariates[2]** | | | | | |
| *Has non-missing value for reported race [3]* | | | | | |
| *American Indian or Alaska Native* | | | | | |
| Female | 8,192 | 8,986 | 9,116.40 | 8,192 | N/A |
| Male | 6,592 | 7,511 | 8,776.46 | 6,592 | N/A |
| *Asian* | | | | | |
| Female | 169,450 | 183,533 | 9,232.67 | 169,450 | N/A |
| Male | 134,082 | 148,791 | 9,011.43 | 134,082 | N/A |
| *Black or African American* | | | | | |
| Female | 228,336 | 246,788 | 9,252.31 | 228,336 | N/A |
| Male | 176,887 | 198,496 | 8,911.36 | 176,887 | N/A |
| *Multi-racial* | | | | | |
| Female | 99,211 | 105,707 | 9,385.47 | 99,211 | N/A |
| Male | 82,507 | 90,613 | 9,105.43 | 82,507 | N/A |
| *Native Hawaiian or Other Pacific Islander* | | | | | |
| Female | 131 | 20,446 | 8,953.34 | 18,306 | N/A |
| Male | 17,968 | 20,978 | 8,565.16 | 17,968 | N/A |
| *Unknown* | | | | | |
| Female | 342,295 | 419,765 | 8,154.44 | 342,295 | N/A |
| Male | 337,587 | 457,887 | 7,372.71 | 337,587 | N/A |
| *White* | | | | | |
| Female | 1,075,741 | 1,138,557 | 9,448.28 | 1,075,741 | N/A |
| Male | 921,448 | 1,004,038 | 9,177.42 | 921,448 | N/A |
| *Has non-missing value for imputed race [4]* | | | | | |
| *American Indian or Alaska Native* | | | | | |
| Female | 131 | 149 | 8,791.95 | 131 | N/A |
| Male | 98 | 118 | 8,305.08 | 98 | N/A |
| *Asian* | | | | | |
| Female | 0 | 0 | NaN | 0 | N/A |
| Male | 0 | 0 | NaN | 0 | N/A |
| *Black or African American* | | | | | |
| Female | 1,703 | 1,867 | 9,121.59 | 1,703 | N/A |
| Male | 1,428 | 1,634 | 8,739.29 | 1,428 | N/A |
| *Multi-racial* | | | | | |
| 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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| *Native Hawaiian or Other Pacific Islander* | | | | | |
| Female | 0 | 0 | NaN | 0 | N/A |
| Male | 0 | 0 | NaN | 0 | N/A |
| *Unknown* | | | | | |
| Female | 42,139 | 45,830 | 9,194.63 | 42,139 | N/A |
| Male | 38,023 | 43,436 | 8,753.80 | 38,023 | N/A |
| *White* | | | | | |
| Female | 269,765 | 286,798 | 9,406.10 | 269,765 | N/A |
| Male | 239,570 | 266,044 | 9,004.90 | 239,570 | N/A |

[1]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.

[2]Unlike sections in other tables describing incident and prevalent capture of confounding conditions from diagnosis, procedure, and drug codes (i.e., those labeled "Incident Capture (365-Day Washout) of Confounding Conditions" and "Prevalent Capture of Confounding Conditions"), this section captures additional prevalent conditions from demographic data (race and imputed race), diagnosis codes (BMI categories), and vitals data (remaining variables). Not all variables are included in this table.

[3]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.

[4]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 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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| **Capture of Other Confounding Covariates[2]** | | | | | |
| *Has non-missing value for reported race [3]* | | | | | |
| *American Indian or Alaska Native* | | | | | |
| 0-17 years | 3,175 | 3,636 | 8,732.12 | 3,175 | N/A |
| 18-43 years | 5,256 | 6,138 | 8,563.05 | 5,256 | N/A |
| 44-64 years | 4,566 | 5,032 | 9,073.93 | 4,566 | N/A |
| ≥ 65 years | 1,787 | 1,869 | 9,561.26 | 1,787 | N/A |
| *Asian* | | | | | |
| 0-17 years | 56,628 | 63,229 | 8,956.02 | 56,628 | N/A |
| 18-43 years | 104,749 | 120,964 | 8,659.52 | 104,749 | N/A |
| 44-64 years | 96,601 | 104,900 | 9,208.87 | 96,601 | N/A |
| ≥ 65 years | 45,554 | 47,525 | 9,585.27 | 45,554 | N/A |
| *Black or African American* | | | | | |
| 0-17 years | 88,917 | 101,165 | 8,789.30 | 88,917 | N/A |
| 18-43 years | 139,252 | 160,908 | 8,654.14 | 139,252 | N/A |
| 44-64 years | 120,051 | 128,977 | 9,307.94 | 120,051 | N/A |
| ≥ 65 years | 57,003 | 59,378 | 9,600.02 | 57,003 | N/A |
| *Multi-racial* | | | | | |
| 0-17 years | 58,135 | 63,835 | 9,107.07 | 58,135 | N/A |
| 18-43 years | 62,035 | 70,163 | 8,841.55 | 62,035 | N/A |
| 44-64 years | 40,274 | 42,687 | 9,434.72 | 40,274 | N/A |
| ≥ 65 years | 21,274 | 21,780 | 9,767.68 | 21,274 | N/A |
| *Native Hawaiian or Other Pacific Islander* | | | | | |
| 0-17 years | 7,713 | 9,037 | 8,534.91 | 7,713 | N/A |
| 18-43 years | 14,998 | 18,264 | 8,211.78 | 14,998 | N/A |
| 44-64 years | 10,321 | 11,435 | 9,025.80 | 10,321 | N/A |
| ≥ 65 years | 3,242 | 3,360 | 9,648.81 | 3,242 | N/A |
| *Unknown* | | | | | |
| 0-17 years | 152,987 | 193,915 | 7,889.38 | 152,987 | N/A |
| 18-43 years | 267,709 | 379,371 | 7,056.65 | 267,709 | N/A |
| 44-64 years | 203,220 | 252,059 | 8,062.40 | 203,220 | N/A |
| ≥ 65 years | 55,966 | 65,625 | 8,528.15 | 55,966 | N/A |
| *White* | | | | | |
| 0-17 years | 314,469 | 343,635 | 9,151.25 | 314,469 | N/A |
| 18-43 years | 637,704 | 720,212 | 8,854.39 | 637,704 | N/A |
| 44-64 years | 641,844 | 685,373 | 9,364.89 | 641,844 | 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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| ≥ 65 years | 403,172 | 413,804 | 9,743.07 | 403,172 | N/A |

*Has non-missing value for imputed race [4]*

*American Indian or Alaska Native*

| | | | | | |
|---|---|---|---|---|---|
| 0-17 years | 53 | 60 | 8,833.33 | 53 | N/A |
| 18-43 years | 94 | 119 | 7,899.16 | 94 | N/A |
| 44-64 years | 51 | 58 | 8,793.10 | 51 | N/A |
| ≥ 65 years | 31 | 32 | 9,687.50 | 31 | N/A |

*Asian*

| | | | | | |
|---|---|---|---|---|---|
| 0-17 years | 0 | 0 | NaN | 0 | N/A |
| 18-43 years | 0 | 0 | NaN | 0 | N/A |
| 44-64 years | 0 | 0 | NaN | 0 | N/A |
| ≥ 65 years | 0 | 0 | NaN | 0 | N/A |

*Black or African American*

| | | | | | |
|---|---|---|---|---|---|
| 0-17 years | 777 | 889 | 8,740.16 | 777 | N/A |
| 18-43 years | 1,242 | 1,467 | 8,466.26 | 1,242 | N/A |
| 44-64 years | 820 | 890 | 9,213.48 | 820 | N/A |
| ≥ 65 years | 292 | 303 | 9,636.96 | 292 | N/A |

*Multi-racial*

| | | | | | |
|---|---|---|---|---|---|
| 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 |

*Native Hawaiian or Other Pacific Islander*

| | | | | | |
|---|---|---|---|---|---|
| 0-17 years | 0 | 0 | NaN | 0 | N/A |
| 18-43 years | 0 | 0 | NaN | 0 | N/A |
| 44-64 years | 0 | 0 | NaN | 0 | N/A |
| ≥ 65 years | 0 | 0 | NaN | 0 | N/A |

*Unknown*

| | | | | | |
|---|---|---|---|---|---|
| 0-17 years | 18,735 | 21,063 | 8,894.74 | 18,735 | N/A |
| 18-43 years | 33,483 | 39,215 | 8,538.31 | 33,483 | N/A |
| 44-64 years | 21,967 | 23,936 | 9,177.39 | 21,967 | N/A |
| ≥ 65 years | 5,977 | 6,195 | 9,648.10 | 5,977 | N/A |

*White*

| | | | | | |
|---|---|---|---|---|---|
| 0-17 years | 89,960 | 99,622 | 9,030.13 | 89,960 | N/A |
| 18-43 years | 169,571 | 196,413 | 8,633.39 | 169,571 | N/A |
| 44-64 years | 149,038 | 160,181 | 9,304.35 | 149,038 | 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[1] | Number of Members with an Index Date per 10K Eligible Members[1] | Total Number of Index Dates | Eligible Member Years[1] |
|---|---|---|---|---|---|
| ≥ 65 years | 100,766 | 102,459 | 9,834.76 | 100,766 | N/A |

[1]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.

[2]Unlike sections in other tables describing incident and prevalent capture of confounding conditions from diagnosis, procedure, and drug codes (i.e., those labeled "Incident Capture (365-Day Washout) of Confounding Conditions" and "Prevalent Capture of Confounding Conditions"), this section captures additional prevalent conditions from demographic data (race and imputed race), diagnosis codes (BMI categories), and vitals data (remaining variables). Not all variables are included in this table.

[3]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.

[4]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[1] 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 |
|---|---|---|---|---|---|---|
| **Members meeting enrollment and demographic requirements** | | | | | | |
| Enrolled at any point during the query period | 11,737,414 | N/A | 11,737,414 | N/A | 11,737,414 | N/A |
| Had required coverage type (medical and/or drug coverage) | 10,993,543 | 743,871 | 10,993,543 | 743,871 | 10,993,543 | 743,871 |
| Enrolled during specified age range | 10,993,530 | 13 | 10,993,530 | 13 | 10,993,530 | 13 |
| Had requestable medical charts | 10,993,530 | 0 | 10,993,530 | 0 | 10,993,530 | 0 |
| Met demographic requirements (sex, race, and Hispanic origin) | 10,990,754 | 2,776 | 10,990,754 | 2,776 | 10,990,754 | 2,776 |
| **Members with a valid index event** | | | | | | |
| Had any cohort-defining claim during the query period | 1,666,596 | 9,324,158 | 574,030 | 10,416,724 | 1,553,199 | 9,437,555 |
| **Cohort episodes with a valid index date** | | | | | | |
| Total number of claims with cohort-identifying codes during the query period | 9,884,210 | N/A | 1,109,862 | N/A | 8,704,606 | N/A |
| Claim recorded during specified age range | 9,884,001 | 209 | ***** | ***** | 8,704,295 | 311 |
| Episode defining index claim recorded during the query period | 2,988,743 | 6,895,258 | 741,348 | ***** | 2,617,334 | 6,086,961 |
| **Cohort episodes with required pre-index history** | | | | | | |
| Had sufficient pre-index continuous enrollment | 2,269,697 | 719,046 | 586,628 | 154,720 | 1,910,008 | 707,326 |
| Met inclusion and exclusion criteria | 2,269,697 | 0 | 586,628 | 0 | 1,910,008 | 0 |
| Had sufficient post-index continuous enrollment | 2,269,697 | 0 | 586,628 | 0 | 1,910,008 | 0 |
| **Final cohort** | | | | | | |
| Number of members | 1,241,553 | N/A | 450,881 | N/A | 1,105,699 | N/A |
| Number of episodes | 2,269,697 | N/A | 586,628 | N/A | 1,910,008 | N/A |

**Table 8a. Summary of Episode-Level[1] 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 |
| **Members meeting enrollment and demographic requirements** | | | | | | | | |
| Enrolled at any point during the query period | 11,737,414 | N/A | 11,737,414 | N/A | 11,737,414 | N/A | 11,737,414 | N/A |
| Had required coverage type (medical and/or drug coverage) | 10,993,543 | 743,871 | 10,993,543 | 743,871 | 10,993,543 | 743,871 | 10,993,543 | 743,871 |
| Enrolled during specified age range | 10,993,530 | 13 | 10,993,530 | 13 | 10,993,530 | 13 | 10,993,530 | 13 |
| Had requestable medical charts | 10,993,530 | 0 | 10,993,530 | 0 | 10,993,530 | 0 | 10,993,530 | 0 |
| Met demographic requirements (sex, race, and Hispanic origin) | 10,990,754 | 2,776 | 10,990,754 | 2,776 | 10,990,754 | 2,776 | 10,990,754 | 2,776 |
| **Members with a valid index event** | | | | | | | | |
| Had any cohort-defining claim during the query period | 386,500 | 10,604,254 | 387,211 | 10,603,543 | 170,278 | 10,820,476 | 44,828 | 10,945,926 |
| **Cohort episodes with a valid index date** | | | | | | | | |
| Total number of claims with cohort-identifying codes during the query period | 3,801,295 | N/A | 1,631,467 | N/A | 1,878,902 | N/A | 118,740 | N/A |
| Claim recorded during specified age range | 3,801,244 | 51 | ***** | ***** | 1,878,864 | 38 | ***** | ***** |
| Episode defining index claim recorded during the query period | 519,298 | 3,281,946 | 488,619 | ***** | 321,978 | 1,556,886 | 50,038 | ***** |
| **Cohort episodes with required pre-index history** | | | | | | | | |
| Had sufficient pre-index continuous enrollment | 365,331 | 153,967 | 338,932 | 149,687 | 274,848 | 47,130 | 43,203 | 6,835 |
| Met inclusion and exclusion criteria | 365,331 | 0 | 338,932 | 0 | 274,848 | 0 | 43,203 | 0 |
| Had sufficient post-index continuous enrollment | 365,331 | 0 | 338,932 | 0 | 274,848 | 0 | 43,203 | 0 |
| **Final cohort** | | | | | | | | |
| Number of members | 267,931 | N/A | 267,334 | N/A | 140,184 | N/A | 38,755 | N/A |
| Number of episodes | 365,331 | N/A | 338,932 | N/A | 274,848 | N/A | 43,203 | N/A |

**Table 8a. Summary of Episode-Level[1] 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 |
| **Members meeting enrollment and demographic requirements** | | | | | | |
| Enrolled at any point during the query period | 11,737,414 | N/A | 11,737,414 | N/A | 11,737,414 | N/A |
| Had required coverage type (medical and/or drug coverage) | 10,993,543 | 743,871 | 10,993,543 | 743,871 | 10,993,543 | 743,871 |
| Enrolled during specified age range | 10,993,530 | 13 | 10,993,530 | 13 | 10,993,530 | 13 |
| Had requestable medical charts | 10,993,530 | 0 | 10,993,530 | 0 | 10,993,530 | 0 |
| Met demographic requirements (sex, race, and Hispanic origin) | 779,658 | 2,776 | 10,990,754 | 2,776 | 10,990,754 | 2,776 |
| **Members with a valid index event** | | | | | | |
| Had any cohort-defining claim during the query period | 1,666,596 | 9,324,158 | 574,030 | 10,416,724 | 1,553,199 | 9,437,555 |
| **Cohort episodes with a valid index date** | | | | | | |
| Total number of claims with cohort-identifying codes during the query period | 9,884,210 | N/A | 1,109,862 | N/A | 8,704,606 | N/A |
| Claim recorded during specified age range | 9,884,001 | 209 | ***** | ***** | 8,704,295 | 311 |
| Episode defining index claim recorded during the query period | 9,884,001 | 0 | ***** | 0 | 8,704,295 | 0 |
| **Cohort episodes with required pre-index history** | | | | | | |
| Had sufficient pre-index continuous enrollment | 8,293,162 | 1,590,839 | 902,326 | ***** | 7,028,690 | 1,675,605 |
| Met inclusion and exclusion criteria | 8,293,162 | 0 | 902,326 | 0 | 7,028,690 | 0 |
| Had sufficient post-index continuous enrollment | 8,293,162 | 0 | 902,326 | 0 | 7,028,690 | 0 |
| **Final cohort** | | | | | | |
| Number of members | 1,348,804 | N/A | 462,354 | N/A | 1,220,664 | N/A |
| Number of episodes | 8,293,162 | N/A | 902,326 | N/A | 7,028,690 | N/A |

**Table 8a. Summary of Episode-Level[1] 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 |
| **Members meeting enrollment and demographic requirements** | | | | | | | | |
| Enrolled at any point during the query period | 11,737,414 | N/A | 11,737,414 | N/A | 11,737,414 | N/A | 11,737,414 | N/A |
| Had required coverage type (medical and/or drug coverage) | 10,993,543 | 743,871 | 10,993,543 | 743,871 | 10,993,543 | 743,871 | 10,993,543 | 743,871 |
| Enrolled during specified age range | 10,993,530 | 13 | 10,993,530 | 13 | 10,993,530 | 13 | 10,993,530 | 13 |
| Had requestable medical charts | 10,993,530 | 0 | 10,993,530 | 0 | 10,993,530 | 0 | 10,993,530 | 0 |
| Met demographic requirements (sex, race, and Hispanic origin) | 10,990,754 | 2,776 | 10,990,754 | 2,776 | 10,990,754 | 2,776 | 10,990,754 | 2,776 |
| **Members with a valid index event** | | | | | | | | |
| Had any cohort-defining claim during the query period | 386,500 | 10,604,254 | 387,211 | 10,603,543 | 170,278 | 10,820,476 | 44,828 | 10,945,926 |
| **Cohort episodes with a valid index date** | | | | | | | | |
| Total number of claims with cohort-identifying codes during the query period | 3,801,295 | N/A | 1,631,467 | N/A | 1,878,902 | N/A | 118,740 | N/A |
| Claim recorded during specified age range | 3,801,244 | 51 | ***** | ***** | 1,878,864 | 38 | ***** | ***** |
| Episode defining index claim recorded during the query period | 3,801,244 | 0 | ***** | 0 | 1,878,864 | 0 | ***** | 0 |
| **Cohort episodes with required pre-index history** | | | | | | | | |
| Had sufficient pre-index continuous enrollment | 2,936,844 | 864,400 | 1,237,505 | ***** | 1,711,117 | 167,747 | 104,742 | ***** |
| Met inclusion and exclusion criteria | 2,936,844 | 0 | 1,237,505 | 0 | 1,711,117 | 0 | 104,742 | 0 |
| Had sufficient post-index continuous enrollment | 2,936,844 | 0 | 1,237,505 | 0 | 1,711,117 | 0 | 104,742 | 0 |
| **Final cohort** | | | | | | | | |
| Number of members | 297,316 | N/A | 289,073 | N/A | 151,950 | N/A | 39,371 | N/A |
| Number of episodes | 2,936,844 | N/A | 1,237,505 | N/A | 1,711,117 | N/A | 104,742 | N/A |

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

| | Capture of Other Confounding Covariates[2] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 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 | | Has Non-Missing Value for Height | | Has Non-Missing Value for Weight | |
| | Remaining | Excluded | Remaining | Excluded | Remaining | Excluded | Remaining | Excluded | Remaining | Excluded |
| **Members meeting enrollment and demographic requirements** | | | | | | | | | | |
| Enrolled at any point during the query period | 11,737,414 | N/A | 11,737,414 | N/A | 11,737,414 | N/A | 11,737,414 | N/A | 11,737,414 | N/A |
| Had required coverage type (medical and/or drug coverage) | 10,993,543 | 743,871 | 10,993,543 | 743,871 | 10,993,543 | 743,871 | 10,993,543 | 743,871 | 10,993,543 | 743,871 |
| Enrolled during specified age range | 10,993,530 | 13 | 10,993,530 | 13 | 10,993,530 | 13 | 10,993,530 | 13 | 10,993,530 | 13 |
| Had requestable medical charts | 10,993,530 | 0 | 10,993,530 | 0 | 10,993,530 | 0 | 10,993,530 | 0 | 10,993,530 | 0 |
| Met demographic requirements (sex, race, and Hispanic origin) | 10,990,754 | 2,776 | 10,990,754 | 2,776 | 10,990,754 | 2,776 | 10,990,754 | 2,776 | 10,990,754 | 2,776 |
| **Members with a valid index event** | | | | | | | | | | |
| Had any cohort-defining claim during the query period | 1,510,120 | 9,480,634 | 1,061,707 | 9,929,047 | 276,375 | 10,714,379 | 6,212,931 | 4,777,823 | 6,597,099 | 4,393,655 |
| **Cohort episodes with a valid index date** | | | | | | | | | | |
| Total number of claims with cohort-identifying codes during the query period | 5,377,524 | N/A | 4,312,605 | N/A | 475,053 | N/A | 48,801,623 | N/A | 89,439,261 | N/A |
| Claim recorded during specified age range | 5,377,418 | 106 | 4,312,520 | 85 | ***** | ***** | 48,795,684 | 5,939 | 89,432,805 | 6,456 |
| Episode defining index claim recorded during the query period | 5,377,418 | 0 | 4,312,520 | 0 | ***** | 0 | 48,795,684 | 0 | 89,432,805 | 0 |

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

| | Capture of Other Confounding Covariates[2] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 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 | | Has Non-Missing Value for Height | | Has Non-Missing Value for Weight | |
| | Remaining | Excluded | Remaining | Excluded | Remaining | Excluded | Remaining | Excluded | Remaining | Excluded |
| **Cohort episodes with required pre-index history** | | | | | | | | | | |
| Had sufficient pre-index continuous enrollment | 4,499,882 | 877,536 | 3,623,071 | 689,449 | 390,575 | ***** | 38,480,302 | 10,315,382 | 72,218,847 | 17,213,958 |
| Met inclusion and exclusion criteria | 4,499,882 | 0 | 3,623,071 | 0 | 390,575 | 0 | 38,480,302 | 0 | 72,218,847 | 0 |
| Had sufficient post-index continuous enrollment | 4,499,882 | 0 | 3,623,071 | 0 | 390,575 | 0 | 38,480,302 | 0 | 72,218,847 | 0 |
| **Final cohort** | | | | | | | | | | |
| Number of members | 1,241,685 | N/A | 875,862 | N/A | 225,785 | N/A | 4,737,209 | N/A | 5,133,603 | N/A |
| Number of episodes | 4,499,882 | N/A | 3,623,071 | N/A | 390,575 | N/A | 38,480,302 | N/A | 72,218,847 | N/A |

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

| | Capture of Other Confounding Covariates[2] | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Has Non-Missing Values for Both Height and Weight within +/- Six Months | | Has BMI Calculated from Vitals is in the Obesity Range | | Has BMI Calculated from Vitals is in the Overweight Range | | Has Non-Missing Value for Diastolic Blood Pressure | | Has Non-Missing Value for Systolic Blood Pressure | |
| | Remaining | Excluded | Remaining | Excluded | Remaining | Excluded | Remaining | Excluded | Remaining | Excluded |
| **Members meeting enrollment and demographic requirements** | | | | | | | | | | |
| Enrolled at any point during the query period | 11,737,414 | N/A | 11,737,414 | N/A | 11,737,414 | N/A | 11,737,414 | N/A | 11,737,414 | N/A |
| Had required coverage type (medical and/or drug coverage) | 10,993,543 | 743,871 | 10,993,543 | 743,871 | 10,993,543 | 743,871 | 10,993,543 | 743,871 | 10,993,543 | 743,871 |
| Enrolled during specified age range | 9,457,784 | 1,535,759 | 9,457,784 | 1,535,759 | 9,457,784 | 1,535,759 | 10,993,530 | 13 | 10,993,530 | 13 |
| Had requestable medical charts | 9,457,784 | 0 | 9,457,784 | 0 | 9,457,784 | 0 | 10,993,530 | 0 | 10,993,530 | 0 |
| Met demographic requirements (sex, race, and Hispanic origin) | 9,455,362 | 2,422 | 9,455,362 | 2,422 | 9,455,362 | 2,422 | 10,990,754 | 2,776 | 10,990,754 | 2,776 |
| **Members with a valid index event** | | | | | | | | | | |
| Had any cohort-defining claim during the query period | 5,333,726 | 4,121,636 | 2,226,391 | 7,228,971 | 2,557,413 | 6,897,949 | 6,444,395 | 4,546,359 | 6,444,428 | 4,546,326 |
| **Cohort episodes with a valid index date** | | | | | | | | | | |
| Total number of claims with cohort-identifying codes during the query period | 68,339,037 | N/A | 26,197,110 | N/A | 20,893,292 | N/A | 105,762,085 | N/A | 105,768,973 | N/A |
| Claim recorded during specified age range | 64,039,897 | 4,299,140 | 25,769,024 | 428,086 | 20,256,096 | 637,196 | 105,760,790 | 1,295 | 105,767,688 | 1,285 |
| Episode defining index claim recorded during the query period | 64,039,897 | 0 | 25,769,024 | 0 | 20,256,096 | 0 | 105,760,790 | 0 | 105,767,688 | 0 |
| **Cohort episodes with required pre-index history** | | | | | | | | | | |
| Had sufficient pre-index continuous enrollment | 53,222,960 | 10,816,937 | 21,537,533 | 4,231,491 | 16,909,364 | 3,346,732 | 89,363,906 | 16,396,884 | 89,370,080 | 16,397,608 |
| Met inclusion and exclusion criteria | 53,222,960 | 0 | 21,537,533 | 0 | 16,909,364 | 0 | 89,363,906 | 0 | 89,370,080 | 0 |

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

| | Capture of Other Confounding Covariates[2] | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | Has Non-Missing Values for Both Height and Weight within +/- Six Months | | Has BMI Calculated from Vitals is in the Obesity Range | | Has BMI Calculated from Vitals is in the Overweight Range | | Has Non-Missing Value for Diastolic Blood Pressure | | Has Non-Missing Value for Systolic Blood Pressure | |
| | Remaining | Excluded | Remaining | Excluded | Remaining | Excluded | Remaining | Excluded | Remaining | Excluded |
| Had sufficient post-index continuous enrollment | 47,912,345 | 5,310,615 | 19,504,440 | 2,033,093 | 15,282,349 | 1,627,015 | 89,363,906 | 0 | 89,370,080 | 0 |
| **Final cohort** | | | | | | | | | | |
| Number of members | 3,548,406 | N/A | 1,578,887 | N/A | 1,747,980 | N/A | 5,091,900 | N/A | 5,091,957 | N/A |
| Number of episodes | 47,912,345 | N/A | 19,504,440 | N/A | 15,282,349 | N/A | 89,363,906 | N/A | 89,370,080 | N/A |

[1]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.

[2]Unlike earlier sections describing incident and prevalent capture of confounding conditions from diagnosis, procedure, and drug codes, this section captures additional prevalent conditions from demographic data (race and imputed race), diagnosis codes (BMI categories), and vitals data (remaining variables).

*****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 means Not Applicable.

CABG: Coronary Arterial Bypass Graft, PTCA Percutaneous Transluminal Coronary Angioplasty.

**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[1] | | | |
| --- | --- | --- | --- | --- |
| | Has Non-Missing Value for Reported Race[2] | | Has Non-Missing Value for Imputed Race[3] | |
| | Remaining | Excluded | Remaining | Excluded |
| **Members meeting enrollment and demographic requirements** | | | | |
| Enrolled at any point during the query period | 5,347,077 | N/A | 5,347,077 | N/A |
| Had required coverage type (medical and/or drug coverage) | 4,928,296 | 418,781 | 4,928,296 | 418,781 |
| Enrolled during specified age range | 4,928,055 | 241 | 4,928,055 | 241 |
| Had requestable medical charts | 4,928,055 | 0 | 4,928,055 | 0 |
| Met demographic requirements (sex, race, and Hispanic origin) | 779,658 | 1,168 | 779,658 | 4,148,397 |
| **Members with a valid index event** | | | | |
| Had any cohort-defining claim during the query period | 4,364,870 | 562,017 | 702,474 | 77,184 |
| Claim recorded during specified age range | ***** | ***** | 702,474 | 0 |
| Episode defining index claim recorded during the query period | ***** | 0 | 702,474 | 0 |
| **Members with required pre-index history** | | | | |
| Had sufficient pre-index continuous enrollment | 3,618,602 | ***** | 593,040 | 109,434 |
| Met inclusion and exclusion criteria | 3,618,602 | 0 | 593,040 | 0 |
| **Members with required post-index follow-up** | | | | |
| Had sufficient post-index continuous enrollment | 3,618,602 | 0 | 593,040 | 0 |
| **Final cohort** | | | | |
| Number of members | 3,618,602 | N/A | 593,040 | N/A |
| Number of episodes | 3,618,602 | N/A | 593,040 | N/A |

[1]Unlike sections in other tables describing incident and prevalent capture of confounding conditions from diagnosis, procedure, and drug codes (i.e., those labeled "Incident Capture (365-Day Washout) of Confounding Conditions" and "Prevalent Capture of Confounding Conditions"), this section captures additional prevalent conditions from demographic data (race and imputed race), diagnosis codes (BMI categories), and vitals data (remaining variables). Not all variables are included in this table.

[2]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.

[3]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 means 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[1] |
|---|---|---|
| DP01 | 01/01/2000 | 12/31/2023 |
| DP02 | 01/01/2004 | 12/31/2023 |
| DP03 | 01/01/2000 | 12/31/2023 |
| DP04 | 01/01/2000 | 12/31/2023 |
| DP05 | 01/01/2000 | 12/31/2023 |
| DP06 | 01/01/2005 | 07/31/2022 |
| DP07 | 01/01/2000 | 12/31/2023 |

[1]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.

| Code | Description | Code Category | Code Type |
|------|-------------|---------------|-----------|
| **Obesity Diagnosis Codes** | | | |
| 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, antepartum 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 |
| 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 |

| Code | Description | Code Category | Code Type |
|------|-------------|---------------|-----------|
| 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 |
| 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 |

**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 |
|---|---|---|---|
| **Overweight Diagnosis Codes** | | | |
| 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 |
| **Smoking Diagnosis Codes** | | | |
| 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 |
| 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 |

| Code | Description | Code Category | Code Type |
|---|---|---|---|
| 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 |
| 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 |

| Code | Description | Code Category | Code Type |
|---|---|---|---|
| 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 |
| 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 |
| **Alcohol Abuse or Dependence Diagnosis Codes** | | | |
| 291 | Alcohol-induced mental disorders | Diagnosis | ICD-9-CM |
| 291.0 | Alcohol withdrawal delirium | Diagnosis | ICD-9-CM |
| 291.1 | Alcohol-induced persisting amnestic 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 |

| Code | Description | Code Category | Code Type |
|------|-------------|---------------|-----------|
| 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 |
| 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 |

| Code | Description | Code Category | Code Type |
|------|-------------|---------------|-----------|
| 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 |
| 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 |
| F10.259 | Alcohol dependence with alcohol-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 |
|------|-------------|---------------|-----------|
| 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 |
| 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 |

| Code | Description | Code Category | Code Type |
|------|-------------|---------------|-----------|
| 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 |
| 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 |

| Code | Description | Code Category | Code Type |
|------|-------------|---------------|-----------|
| 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 |
| 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 |

**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 |
|------|-------------|---------------|-----------|
| 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 |
| 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 |
| **Drug Abuse or Dependence Diagnosis Codes** | | | |
| 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 |

| Code | Description | Code Category | Code Type |
|---|---|---|---|
| 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 |
| 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 |

| Code | Description | Code Category | Code Type |
|------|-------------|---------------|-----------|
| 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 |
| 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 |
| 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 |

**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 |
|------|-------------|---------------|-----------|
| 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 |
| 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 |

**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 |
|------|-------------|---------------|-----------|
| 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 |
| 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 |

| Code | Description | Code Category | Code Type |
|------|-------------|---------------|-----------|
| 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 |
| 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 |

| Code | Description | Code Category | Code Type |
|---|---|---|---|
| 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 |
| 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 |

| Code | Description | Code Category | Code Type |
|------|-------------|---------------|-----------|
| 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 |
| 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 |
| F15.950 | Other stimulant use, unspecified with stimulant-induced psychotic disorder with delusions | Diagnosis | ICD-10-CM |

| Code | Description | Code Category | Code Type |
|------|-------------|---------------|-----------|
| 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 |
| 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 |

| Code | Description | Code Category | Code Type |
|------|-------------|---------------|-----------|
| 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 |
| 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 |

| Code | Description | Code Category | Code Type |
|------|-------------|---------------|-----------|
| 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 |
| 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 amnestic 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 |

| Code | Description | Code Category | Code Type |
|------|-------------|---------------|-----------|
| 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 |
| 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 amnestic 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 |

| Code | Description | Code Category | Code Type |
|------|-------------|---------------|-----------|
| F19.959 | Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder, unspecified | Diagnosis | ICD-10-CM |
| F19.96 | Other psychoactive substance use, unspecified with psychoactive substance-induced persisting amnestic 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 |
| **History of Coronary Arterial Bypass Graft (CABG) or Percutaneous Transluminal Coronary Angioplasty (PTCA) Diagnosis and Procedure Codes** | | | |
| 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 |

| 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 |
| 027134Z | Dilation of Coronary Artery, Two Arteries with Drug-eluting Intraluminal Device, Percutaneous Approach | Procedure | ICD-10-PCS |

| Code | Description | Code Category | Code Type |
|------|-------------|---------------|-----------|
| 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 |
| 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 |

| Code | Description | Code Category | Code Type |
|------|-------------|---------------|-----------|
| 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 |
| 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 |

| Code | Description | Code Category | Code Type |
|------|-------------|---------------|-----------|
| 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 |
| 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 |

| Code | Description | Code Category | Code Type |
|---|---|---|---|
| 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 |
| 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 |

| Code | Description | Code Category | Code Type |
|---|---|---|---|
| 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 |
| 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 |

**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 |
|---|---|---|---|
| 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 |
| 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 |

| Code | Description | Code Category | Code Type |
|------|-------------|---------------|-----------|
| 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 |
| 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 |

| Code | Description | Code Category | Code Type |
|------|-------------|---------------|-----------|
| 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 |
| 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 |
| **History of Sudden Cardiac Arrest Diagnosis Codes** | | | |
| 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 |

| Code | Description | Code Category | Code Type |
|---|---|---|---|
| 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 |
| **Diagnosis Code that Indicates a Range of BMI** | | | |
| 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 |

| Code | Description | Code Category | Code Type |
|---|---|---|---|
| Z68.29 | Body mass index [BMI] 29.0-29.9, adult | Diagnosis | ICD-10-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 |
| Z68.51 | 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 |
| **Diagnosis Codes that Indicates a Range of Body Mass Index (BMI) that Classifies as Obesity** | | | |
| 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 |
| Z68.3 | 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 |

**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 |
|------|-------------|---------------|-----------|
| Z68.31 | 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 |
| **Diagnosis Codes that Indicates a Range of BMI that Classifies as Overweight** | | | |
| 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 |
|---|---|
| **Obesity** | |
| 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 |
| **Smoking** | |
| 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 |
|---|---|---|---|
| **Obesity Procedure Codes** | | | |
| 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 |

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 |
|---|---|---|---|
| 0D160ZA | Bypass Stomach to Jejunum, Open Approach | Procedure | ICD-10-PCS |
| 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 |

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 |
|---|---|---|---|
| 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 |
| 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 |

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 |
|------|-------------|---------------|-----------|
| 0D194JB | Bypass Duodenum to Ileum with Synthetic Substitute, Percutaneous Endoscopic Approach | Procedure | ICD-10-PCS |
| 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 |

**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 |
|---|---|---|---|
| 0D1A47B | Bypass Jejunum to Ileum with Autologous Tissue Substitute, Percutaneous Endoscopic Approach | Procedure | ICD-10-PCS |
| 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 |

**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 |
|------|-------------|---------------|-----------|
| 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 |
| 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 |

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 |
|---|---|---|---|
| 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 |
| 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 gastroplasty | 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 |
| **Smoking Procedure Codes** | | | |
| 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 |

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 |
|---|---|---|---|
| 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 |
| 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 |

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 |
|---|---|---|---|
| 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 |
| 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 |

**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 |
|------|-------------|---------------|-----------|
| 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 |
| 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 Used in this Request for the 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 | | |
| 5 | smoking_365 | Incident smoking | All valid index dates | 365 | Any care setting | Any | Y | Death; Data Partner End Date; Query End Date | | |

**Appendix E. Specifications Used in this Request for the Non-Race Cohorts**

| Scenario | Group | Exposure/Event 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 |
|---|---|---|---|---|---|---|---|---|---|---|
| 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 | | |
| 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 | | |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Appendix E. Specifications Used in this Request for the 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 |
| 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_b mi | 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_b mi | Has BMI calculated from vitals is in the overwieght range | All valid index dates | 0 | Any care setting | Any | Y | Death; Data Partner End Date; Query End Date | 183 | >=18 years |
| 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 | | |

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 F. Specifications Used in this Request for the 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).

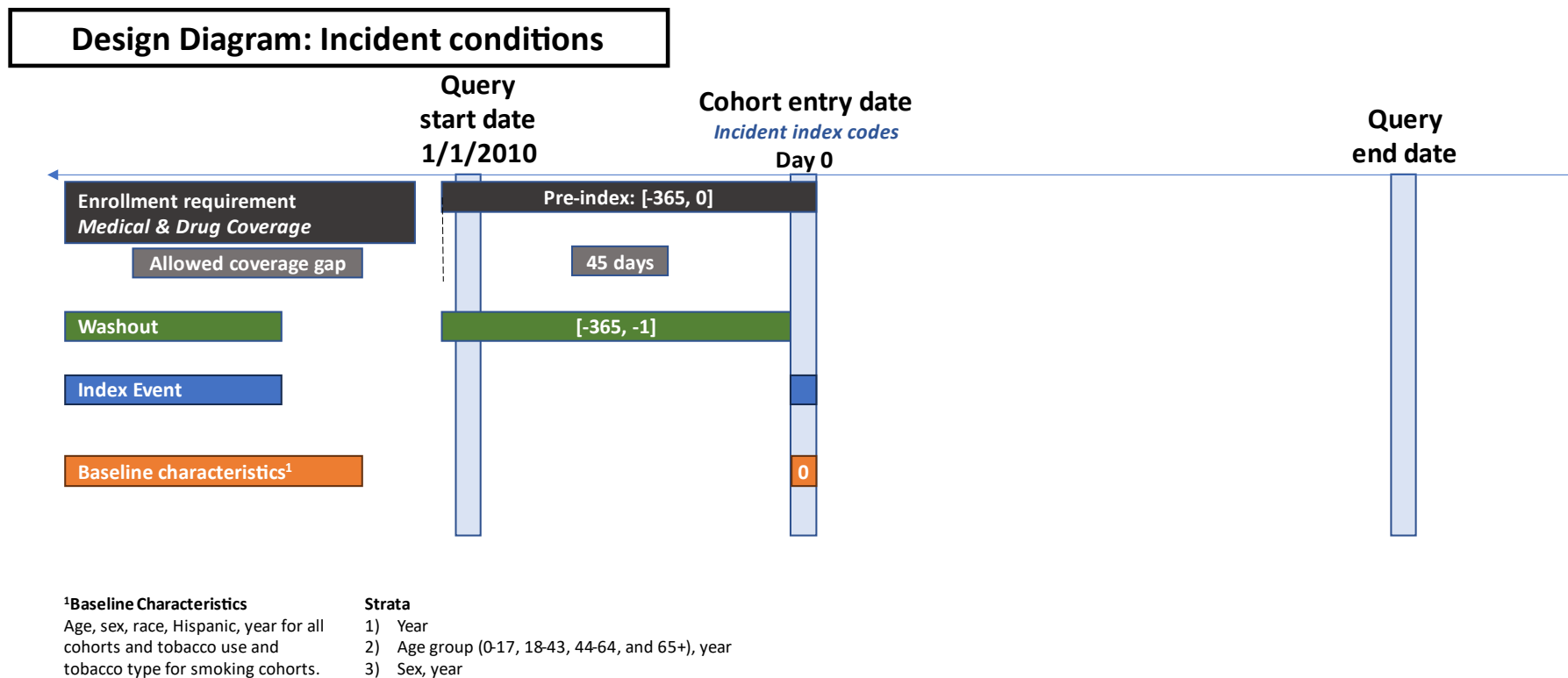| | |
|---:|:---|
| **Query Period:** | January 1, 2020 - December 31, 2021 |
| **Coverage Requirement:** | Medical & Drug Coverage |
| **Pre-Index Enrollment Requirement:** | 365 Days |
| **Post-Index Requirement:** | 0 Days |
| **Enrollment Gap:** | 45 Days |
| **Age Groups:** | 0-17, 18-43, 44-64, 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 Used in this Request for the 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)* | **RX:** Drug code<br>**DX:** Diagnosis code<br>**PX:** Procedure code<br>**CC:** Combination of multiple COVARNUM values to define a covariate<br>**EN:** Encounter<br>**LB:** Lab Code<br>**VT:** Vitals<br>*(CODECAT)* | Numeric specified *(COVFROM)* | Numeric specified *(COVTO)* | Numeric specified *(CODEDAYS)* | **TU:** Tobacco Usage<br>**TT:** Tobacco Type<br>**Blank:** if CODECAT is not VT<br>*(LABSATETYPE)* | **X:** equal to X<br>**<=X:** less than or equal to X<br>**<X:** less than X<br>**>=X:** greater than or equal to X<br>**>X:** greater than X<br>**~=X:** not equal to X<br>**X:Y:** between X and Y<br>**Blank:** 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 |
| 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 |

## Design Diagram: Incident conditions

**Query start date** 1/1/2010

**Cohort entry date**
*Incident index codes*
**Day 0**

**Query end date**

**Enrollment requirement** *Medical & Drug Coverage*

Pre-index: [-365, 0]

**Allowed coverage gap**

45 days

**Washout**

[-365, -1]

**Index Event**

**Baseline characteristics[1]**

0

[1]**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

**Design Diagram: Prevalent Condition and Vitals Data Cohorts[1]**
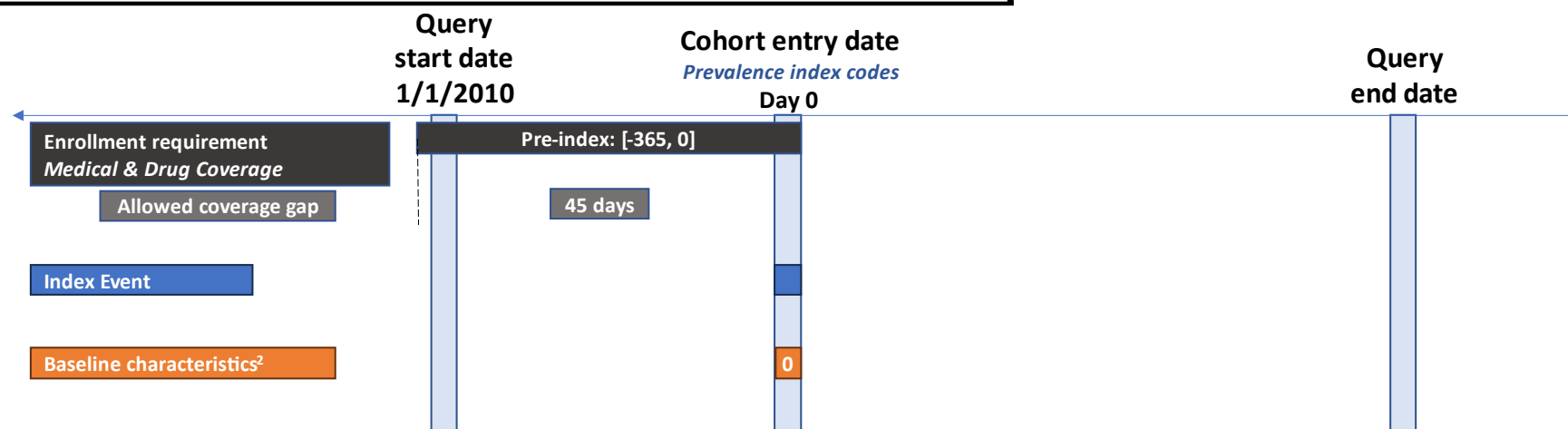


[1]The above diagram applies to the prevalent condition cohorts as well as the has_diag_bmi, obesity_diag_bmi, overweight_diag_bmi, has_height, has_weight, has_dia_bp, and has_sys_bp cohorts.

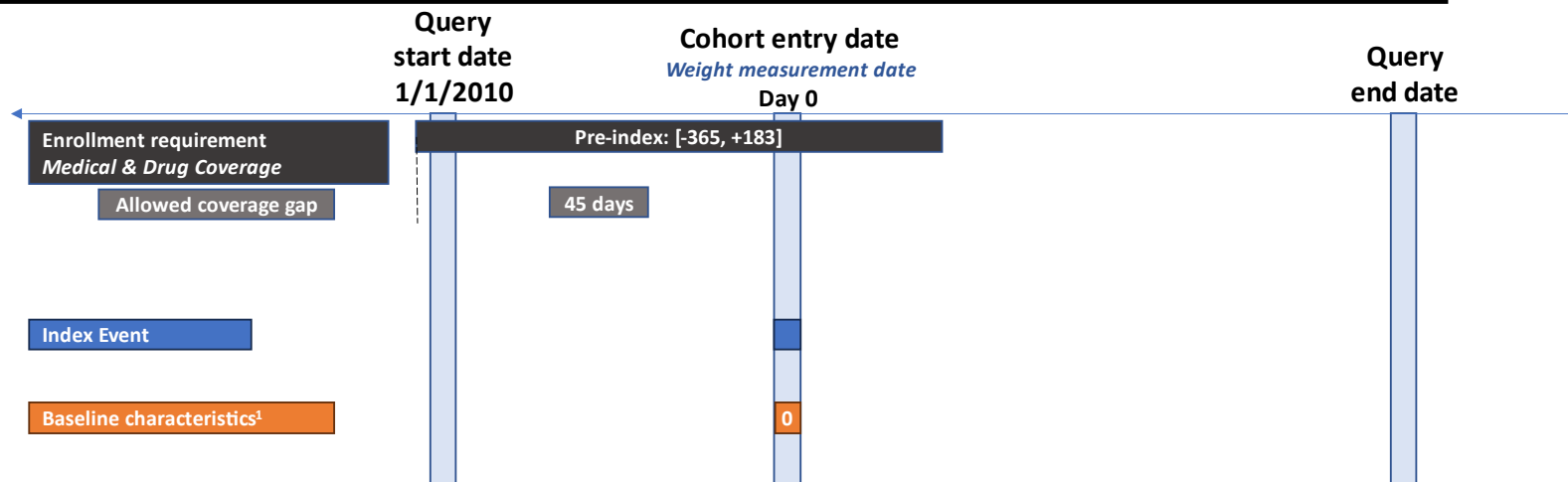| [2]**Baseline Characteristics** | **Strata** |
|---|---|
| Age, sex, race, Hispanic, year for all cohorts and tobacco use and tobacco type for smoking cohorts. | 1) Year<br>2) Age group (0-17, 18-43, 44-64, and 65+), year<br>3) Sex, year |

Design Diagram: has_vitals_BMI,  overweight_vitals_BMI, and obesity_vitals_BMI cohorts

Query start date 1/1/2010

Cohort entry date
*Weight measurement date*
Day 0

Query end date

Enrollment requirement
*Medical & Drug Coverage*

Pre-index: [-365, +183]

Allowed coverage gap
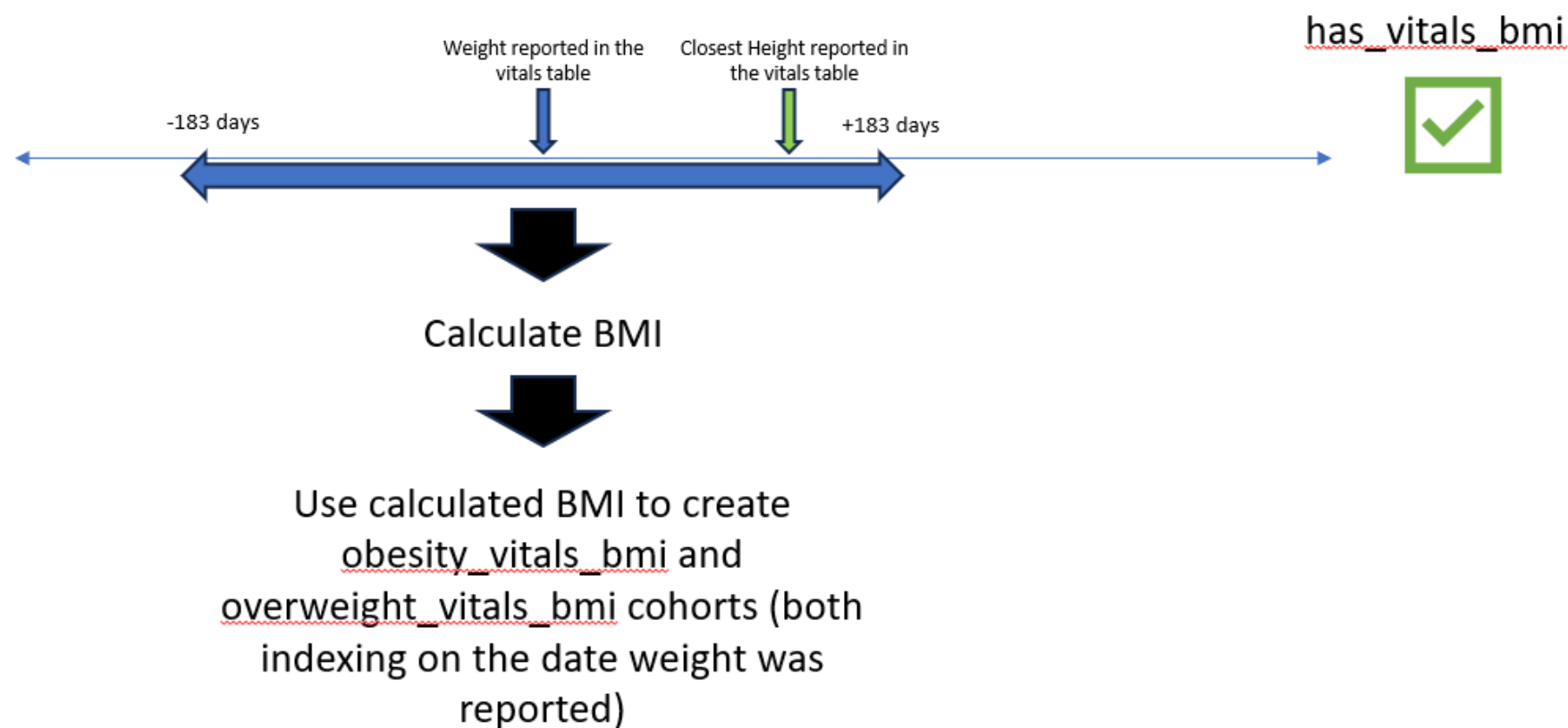
45 days

Index Event

Baseline characteristics[1]

0

[1]**Baseline Characteristics**
Age, sex, race, Hispanic, year for all cohorts

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

**Design Diagram: Race cohorts**

Query start date
1/1/2020

Cohort entry date
*Any encounter*
Day 0

Query end date
12/31/2021

Enrollment requirement
*Medical & Drug Coverage*

Pre-index: [-365, 0]

Allowed coverage gap

45 days

Index Event

Baseline characteristics¹

0

Has Reported Race and Has Imputed Race cohorts.

¹**Baseline Characteristics**
Age, sex, race, Hispanic, Year

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