Contents

Document updates	
Update V14	3
Update V13	
Information on the Carceral Resource Index added	3
Update V12	3
Acute Care Hospital Case Mix (Case Mix)	5
PHDCM.ED	5
PHDCM.HD	6
PHDCM.OO	7
All Payer Claims Database (APCD)	7
PHDAPCD.DENTAL	7
PHDAPCD.ME & PHDAPCD.ME_MTH	9
PHDAPCD.MHEE	9
PHDAPCD.MEDICAL	9
PHDAPCD.PHARMACY	11
PHDAPCD.PRODUCT	13
PHDAPCD.PROVIDER	
Birth Data	14
PHDBIRTH.BIRTH_INFANT	14
PHDBIRTH.BIRTH_MOM	
Bureau of Substance Addiction Services (BSAS) Treatment Data	18
PHDBSAS.BSAS	18
PHDBSAS.HOCMOUD	
PHDBSAS.HOCMOUD_Period	22
PHDBSAS.HOCMOUD_DIS	
PHDBSAS.HOCSURV	
COVID-19 Data	23
PHDMIIS.COVID	
PHDCOVID.COVID_MAVEN	
Death Data	25
PHDDEATH.DEATH	25
Department of Correction (DOC) Release Data	26
PHDDOC.DOC	26
Executive Office of Housing and Livable Communities (EOHLC, formerly DHCD)	28
PHDDHCD.DHCD	28
Department of Industrial Accidents (DIA) – Worker's Compensation Data	
PHDDIA.DIA	
Department of Mental Health (DMH) – Data	
PHDDMH.DMH	
Department of Mental Health (DMH) – RAP	
PHDDMH.RAP Department of Transitional Assistance (DTA) – Data	
DEDALUTETT OF TRAISILIOIDA ASSISTANCE (DIA) - DATA	

PHDDTA.DTA	31
Executive Office of Veterans Services (EOVS, formerly known as DVS) Benefit Data	33
PHDDVS.DVS_CH115	33
PHDDVS.DVS_ANN	
Early Intervention (EI) Data	34
PHDEI.EI_CLIENTS	34
Fetal Death Certificates	35
PHDFETAL.FETALDEATH	35
Hepatitis A Virus Surveillance	37
PHDHEPA.HAV	37
Hepatitis C Virus Surveillance	
PHDHEPC.HCV	38
House of Corrections	
PHDHOC.HOC	
Berkshire HOC	
Essex HOC	
Franklin HOCHampden HOC	
Hampshire HOC	
Middlesex HOC	
Norfolk HOC	
Plymouth HOC	
Suffolk HOC	
Worcester HOC	41
Human Immunodeficiency Syndrome (HIV) Data	41
PHDHIV.HIV INC	41
PHDHIV.HIV_PREV	
MA Ambulance Trip Record Information System (MATRIS)	44
PHDEMS.MATRIS	44
MA Cancer Registry (MCR)	45
PHDMCR.MCR	45
Prescription Monitoring Program (PMP)	
PHDPMP.PMP	45
Office of the Chief Medical Examiner (OCME)	
PHDDEATH.DEATH	
PHDTOX.TOX (Toxicology)	
PHD Spine Datasets	
PHDSPINE.DEMO	
PHDSPINE.OVERDOSE	
PHDSPINE.MOUD	
The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	49
PHDWIC.WIC_KID	49
PHDWIC.WIC_MOM	
Community Loyal Datacets	E1

PHD Drug Seizure DatasetPHD Drug Seizure Dataset	51
Overdose Education and Naloxone Distribution Program (OEND)	52
UMASS Donahue - Small Area Population Estimates	52
The Public Health Disparities Geocoding Project	53
2014-2018 American Community Survey 5-Year Estimates	54
Carceral Resource Index	55

Document updates

Update V14

Dataset	Change	Date
PHDSPINE.DEMO	Added this dataset	3/18/25

Update V13

Dataset	Change	Date
PHDCENS.CRI	Information on the Carceral Resource Index added	7/1/2024
PHDBSAS.BSAS	Changes in the dataset noted	9/24/24

Update V12

Dataset	Change	Date
PHDHOC.HOC	Essex 2011-2023 refreshed, Norfolk 2022-2023 added, Middlesex 2023 added	6/4/2024
PHDDVS.DVS	Added 2021-2023 data	5/23/2024

Individual-Level Datasets

Acute Care Hospital Case Mix (Case Mix)

PHDCM.ED

Brief Description: The Outpatient Emergency Department (ED) Database contains patient demographics, clinical characteristics, services provided, charges, and hospitals and practitioner information, as well as mode of transport.

Data Owner: Center for Health Information and Analysis (CHIA)

Population: ED discharges from MA hospitals for all MA residents

Important Data Notes:

Does not include:

- Hospital services rendered to Massachusetts residents at out of state hospitals
- Hospitals operated by the Veterans Administration (VA)
- Behavioral health hospitals
- ED table is the main ED dataset and contains visit-level data for all emergency department visits. Similar to the HD and OO, each record includes socio-demographic information, medical reason for the visit. The unique identifier on this table is the ED_ID.
- ED_DIAG contains one record per ICD-10-CM diagnosis code reported for each visit. The Visit table has a one-to-many relationship with this table by linking the ED_ID.
- ED_PROC contains one record per procedure code (CPT or ICD-10-PCS) for each visit. Here are also service code (HCPCS or CPT) reported for each visit The Visit table has a one-to-many relationship with this table by linking the ED_ID.
- ED_ORG table contains one record per ED organization. This table can be used to lookup facility names, EMS region, and teaching status.
- Please see https://www.chiamass.gov/case-mix-data/ for current FY data notes and https://www.chiamass.gov/case-mix-data-documentation-archive/ for older years.
- A record ends up in the Case Mix file for the "highest" level of care received. If a person was seen in the ED and then transferred for Observation, that record would be in the Observation dataset. If a person was seen in the ED and then admitted inpatient, that record would be in the Hospitalization dataset.
 - o What is in the ED database?
 - i.Any visit for which the patient was registered in the emergency department that did not result in an outpatient observation stay or an inpatient admission at the reporting facility is considered an emergency department visit. A visit occurs even if the only service provided to a registered patient is triage or screening. Data users interested in visits that resulted in an observation stay should use the outpatient observation database. Data users interested in visits that resulted in an inpatient admission should use the hospital inpatient discharge database. The Service dataset in HD (HD_Serv) contains one record per revenue code service reported for each visit. The HD table has a one-to-many relationship with this table by linking the HD ID. **The quickest way to identify patients admitted**

through the ED is to select those patients with a "0450" revenue code in the services file. In addition, the OO contains ED registration and ED discharge date for boarding time for ED visits that result in an observation stay, likewise HD contains ED registration and ED discharge date and boarding time for ED visits that result in an inpatient hospital admission. ED and HD DIAG files contain additional diagnostic records which are linked to the ED and HD records using the ED_ID.

Years Currently Covered: 2011-2023

PHD Matching Rate: Overall match: 77.0%

More information: http://www.chiamass.gov/case-mix-data/

PHDCM.HD

Brief Description: The Hospital Inpatient Discharge Database (HIDD) contains comprehensive patient-level information including socio-demographics, clinical data, and charge data.

Data Owner: Center for Health Information and Analysis (CHIA)

Population: Inpatient hospital discharges from MA hospitals for all MA residents

Important Data Notes:

- HD table is the main visit dataset and contains one record per discharge. The unique identifier on this table is HD_ID.
- HD_DIAG contains one record per diagnosis reported for each visit. The Discharge table has a one-to-many relationship with this table by linking the HD_ID.
- HD_PROC contains one record per procedure for each visit. The Discharge table has a one-to-many relationship with this table by linking the HD_ID.
- HD_SERVICE contains one record per revenue code service reported for each visit. The Discharge table has a one-to-many relationship with this table by linking the HD_ID.
- HD_ORG contains one record per organization. This table can be used to lookup facility names, EMS region, and Teaching status. The "Organization" table contains 1 record for every valid Orgld reported in the Discharge database
- The data in any year of hospital inpatient discharge data is driven by the discharge date and not by the admission year.
- Does not include:
 - Hospital services rendered to Massachusetts residents at out of state hospitals
 - Hospitals operated by the Veterans Administration (VA)
 - Behavioral health hospitals
- A record ends up in the Case Mix file for the "highest" level of care received. For example, if a
 person was seen for Observation and then admitted inpatient that record would be in the
 Hospitalization dataset.
- To identify individuals that came from ED to HD or OO datasets is to select those patients with a "0450" revenue code in the services file.

Years Currently Covered: 2011-2023

PHD Matching Rate: Overall match: 74.8%

More information: http://www.chiamass.gov/case-mix-data/

PHDCM.00

Brief Description: The Outpatient Hospital Observation Discharge Database (OOD) contains comprehensive patient-level information, including socio-demographics, clinical data, and charge data.

Data Owner: Center for Health Information and Analysis (CHIA)

Population: Observation stay discharges from MA hospitals for all MA residents

Important Data Notes:

Does not include:

- o Hospital services rendered to Massachusetts residents at out of state hospitals
- Hospitals operated by the Veterans Administration (VA)
- Behavioral health hospitals
- A record ends up in the Case Mix file for the "highest" level of care received. This means that the Hospitalization dataset includes records where the person was admitted through the ED, after a period of Observation, or who were directly admitted to an inpatient unit.

Years Currently Covered: 2011-2023

PHD Matching Rate: Overall match: 78.8

More information: http://www.chiamass.gov/case-mix-data/

All Payer Claims Database (APCD)

PHDAPCD.DENTAL

Brief Description: Dental claims submitted by commercial insurance carriers and public programs (Medicaid/ MassHealth). These claims include specialty carriers and administrators of "carved-out" services including dental. The database also contains records about individual plan members (e.g., demographics and enrollment) and can be linked to provider and insurance product data (e.g., product type and coverage type).

Data Owner: Center for Health Information and Analysis (CHIA)

Population: The MA APCD includes data on coverage and services for most Massachusetts residents with public or private insurance.

Important Data Notes:

Does not include:

- Workers' Compensation
- o TRICARE and the Veterans Health Administration
- o Federal Employees Health Benefit Plan
- o Indian Health Services Care
- o Medicare Fee for Service (i.e., Medicare Part A, Medicare Part B)
- Information on uninsured individuals is only included to the extent that they enroll in the Commonwealth's Health Safety Net.
- Beginning in early 2016, as a result of the Supreme Court decision in Gobeille v. Liberty Mutual, some employers who offer self-funded ERISA plans have been removed from the MA APCD. There are several self-insured plans that are not subject to ERISA, such as those operated by state agencies, municipalities, the Group Insurance Commission, Medicare, and Medicaid. The decision does not prohibit the voluntary submission of self-insured plan data to the MA APCD. At the end of 2017 reporting period, approximately 75% (or about 1.75 million members) of self-insured Member Eligibility data is missing from the MA APCD.
- Insurance fees (such as coinsurance) listed on a claim line either apply to the direct claim line or the entire claim it depends on how the carrier is calculating it, and if payments are being bundled. Interpret with caution.
- In the APCD datasets, not every value submitted has a translated meaning this is because Insurance Carriers do not always submit data as requested by CHIA. In those cases, you will find the following note in the variable's meta data in the data dictionary "***For any other value not contained in the list above those values are as is submitted by the insurance carrier (with unknown translation) ***"
- APCD data is extracted and uploaded into the PHD based on the year of the claim's submission date to CHIA. Claims are submitted to CHIA in the month after the claim was paid. Payment occurs after the medical care was rendered. The customary payment window for a claim is typically within 3 months but revised claims can appear up to two years after the service was rendered if an error is found during an audit. Public payers have federal laws governing timely payment of claims.
- To determine the insurance product type in the dental file, use PHDAPCD.DENTAL DENT_INSURANCE_TYPE.
- Select cost fields and what they contain:
 - Billed or Charge amount (DENT_CHARGED): The amount billed by the health care
 provider for the claim line. This amount reflects what the provider hopes to get for the
 service, and often differs from the final paid amount.
 - Paid amount (DENT_PAID): The payment made by the health plan to the health care provider for the claim line (usually excludes patient paid amount)
 - o Patient payment fields: DENT_COINSURANCE, DENT_COPAY, DENT_DEDUCTIBLE
- What claims are in the MA APCD? Post-adjudicated paid claims.
 - Fully denied claims are not submitted to the APCD.
 - In the case where a claim has some lines paid and some lines denied, the APCD will
 receive the entire claim, including the denied claims.
- For claims that are overturned or re-adjudicated, the MA APCD gets the original denial and the new paid version of the claim.

Years Currently Covered: 2014-2022

More information: http://www.chiamass.gov/ma-apcd/

PHDAPCD.ME & PHDAPCD.ME_MTH

Brief Description: Contains member eligibility data for patients with insurance claims. This can be linked to the medical, dental, and pharmacy APCD claims. PHDAPCD.ME contains the full records, while PHDAPCD.ME MTH displays the data on a monthly basis.

Data Owner: Center for Health Information and Analysis (CHIA)

Population: The MA APCD includes data on coverage and services for the vast majority of Massachusetts residents with public or private insurance.

Years Currently Covered: 2014-June 2023

More information: http://www.chiamass.gov/ma-apcd/

PHDAPCD.MHEE

Brief Description: Contains member eligibility data provided by MassHealth on enrolled clients. This can be linked to the medical, dental, and pharmacy APCD claims.

Data Owner: Center for Health Information and Analysis (CHIA)

Population: The MA APCD includes data on coverage and services for the vast majority of Massachusetts residents with public or private insurance.

Important Data Notes: 2012- June 2023

• Only covers MassHealth members (or the programs overseen by MassHealth)

More information: http://www.chiamass.gov/ma-apcd/

PHDAPCD.MEDICAL

Brief Description: Medical claims submitted by commercial insurance carriers and public programs (Medicaid/ MassHealth). These claims come both from medical carriers and from specialty carriers and administrators of "carved-out" services including mental health/chemical dependency. The database also contains records about individual plan members (e.g., demographics and enrollment) and can be linked to provider and insurance product data (e.g., product type and coverage type).

Data Owner: Center for Health Information and Analysis (CHIA)

Population: The MA APCD includes data on coverage and services for the vast majority of Massachusetts residents with public or private insurance.

Important Data Notes: 2014-2022

- Does not include:
 - Workers' Compensation

- TRICARE and the Veterans Health Administration
- o Federal Employees Health Benefit Plan
- o Indian Health Services Care
- Medicare Fee for Service (i.e., Medicare Part A, Medicare Part B)
- Information on uninsured individuals is only included to the extent that they enroll in the Commonwealth's Health Safety Net.
- Beginning in early 2016, as a result of the Supreme Court decision in Gobeille v. Liberty Mutual, some employers who offer self-funded ERISA plans have been removed from the MA APCD. There are several self-insured plans that are not subject to ERISA, such as those operated by state agencies, municipalities, the Group Insurance Commission, Medicare, and Medicaid. The decision does not prohibit the voluntary submission of self-insured plan data to the MA APCD. At the end of 2017 reporting period, approximately 75% (or about 1.75 million members) of self-insured Member Eligibility data is missing from the MA APCD.
- Highest Version Indicator: MA APCD submissions are at the claim line level. Typically, each time
 a claim is adjudicated a line is created. As a result, each claim may have multiple lines.
 Identifying the highest version of the claim allows analysts to determine total charges,
 discounts, payments, etc. Highest version flags, based on carrier-specific logic, are available for
 the top 32 carriers for Medical Claims.
- Insurance fees (such as coinsurance) listed on a claim line either apply to the direct claim line or the entire claim it depends on how the carrier is calculating it, and if payments are being bundled. Interpret with caution.
- For general analyses of ICD codes, it is recommended to search all ICD diagnosis code fields (MED_ADM_DIAGNOSIS, MED_DIS_DIAGNOSIS, MED_ECODE, MED_ICD1- MED_ICD25).
 - MED_ECODE may contain codes other than e-codes; additionally, e-codes could be found in other ICD diagnosis code fields (MED_ADM_DIAGNOSIS, MED_DIS_DIAGNOSIS, MED_ICD1- MED_ICD25)
- In the APCD datasets, not every value submitted has a translated meaning this is because Insurance Carriers do not always submit data as requested by CHIA. In those cases, you will find the following note in the variable's meta data in the data dictionary "***For any other value not contained in the list above those values are as is submitted by the insurance carrier (with unknown translation) ***"
- In the APCD Medical file (PHDAPCD.MEDICAL) the best way to find Medicaid claims is to use the variable MED_MEDICAID=1
- APCD data is extracted and uploaded into the PHD based on the year of the claim's submission date to CHIA. Claims are submitted to CHIA in the month after the claim was paid. Payment occurs after the medical care was rendered. The customary payment window for a claim is typically within 3 months but revised claims can appear up to two years after the service was rendered if an error is found during an audit. Public payers have federal laws governing timely payment of claims.
- To determine the insurance product type in the medical file, use PHDAPCD.MEDICAL -MED INSURANCE TYPE.
- There are two types of medical claims those submitted from institutions and those submitted from professionals. To determine which type of a claim it is, use the variable "MED_CLAIM_TYPE" (1=Professional, 2=Facility/Institutional). These claims are submitted on different forms with different fields available:

- Only facility/institutional claims will have: Revenue Codes (MED_REVENUE_CODE) and ICD Procedure Codes (MED_ICD_PROC1- MED_ICD_PROC7)
- Only professional claims will have place of service codes (MED_SITE)
- They both have: NPIs, ICD diagnosis codes, and CPT/HCPCS codes (MED_PROC_CODE, MED_PROC_MOD1- MED_PROC_MOD4)
- Select cost fields and what they contain:
 - Billed or Charge amount (MED_CHARGED): The amount billed by the health care
 provider for the claim line. This amount reflects what the provider hopes to get for the
 service, and often differs from the final paid amount.
 - Allowed amount (MED_ALLOWED_AMOUNT): The maximum amount a plan will pay for the claim line (includes plan and patient out-of-pocket payments); usually based on prenegotiated rates.
 - Paid amount (MED_PAID): The payment made by the health plan to the health care provider for the claim line (usually excludes patient paid amount)
 - Patient payment fields: MED_COINSURANCE, MED_COPAY, MED_DEDUCTIBLE, MED_TOT_OutOfPOCKET
 - Please note, if this medical claim is part of capitated care (i.e., MED_CAPITATED=1), insurers have the ability to populate the estimated cost for that claim line in MED_PREPAID - some payers always fill out the prepaid amount, some always leave as \$0 and some inconsistently populate this field.
- What claims are in the MA APCD? Post-adjudicated paid claims.
 - o Fully denied claims are not submitted to the APCD.
 - In the case where a claim has some lines paid and some lines denied, the APCD will
 receive the entire claim, including the denied claims.
 - For claims that are overturned or re-adjudicated, the MA APCD gets the original denial and the new paid version of the claim.

More information: http://www.chiamass.gov/ma-apcd/

PHDAPCD.PHARMACY

Brief Description: Pharmacy claims submitted by commercial insurance carriers and public programs (Medicaid/ MassHealth). These claims come both from medical carriers and from specialty carriers and administrators of "carved-out" services including pharmacy. The database also contains records about individual plan members (e.g., demographics and enrollment) and can be linked to provider and insurance product data (e.g., product type and coverage type).

Data Owner: Center for Health Information and Analysis (CHIA)

Population: The MA APCD includes data on coverage and services for the vast majority of Massachusetts residents with public or private insurance.

Important Data Notes:

• Does not include:

- Workers' Compensation
- o TRICARE and the Veterans Health Administration
- o Federal Employees Health Benefit Plan
- o Indian Health Services Care
- Medicare Fee for Service (i.e., Medicare Part A, Medicare Part B)
- Information on uninsured individuals is only included to the extent that they enroll in the Commonwealth's Health Safety Net.
- Beginning in early 2016, as a result of the Supreme Court decision in Gobeille v. Liberty Mutual, some employers who offer self-funded ERISA plans have been removed from the MA APCD. There are several self-insured plans that are not subject to ERISA, such as those operated by state agencies, municipalities, the Group Insurance Commission, Medicare, and Medicaid. The decision does not prohibit the voluntary submission of self-insured plan data to the MA APCD. At the end of 2017 reporting period, approximately 75% (or about 1.75 million members) of self-insured Member Eligibility data is missing from the MA APCD.
- Highest Version Indicator: MA APCD submissions are at the claim line level. Typically, each time
 a claim is adjudicated a line is created. As a result, each claim may have multiple lines.
 Identifying the highest version of the claim allows analysts to determine total charges,
 discounts, payments, etc. Highest version flags, based on carrier-specific logic, are available for
 the top 29 carriers for Pharmacy Claims.
- Insurance fees (such as coinsurance) listed on a claim line either apply to the direct claim line or the entire claim it depends on how the carrier is calculating it, and if payments are being bundled. Interpret with caution.
- In the APCD datasets, not every value submitted has a translated meaning this is because Insurance Carriers do not always submit data as requested by CHIA. In those cases, you will find the following note in the variable's meta data in the data dictionary "***For any other value not contained in the list above those values are as is submitted by the insurance carrier (with unknown translation) ***"
- APCD data is extracted and uploaded into the PHD based on the year of the claim's submission date to CHIA. Claims are submitted to CHIA in the month after the claim was paid. Payment occurs after the medical care was rendered. The customary payment window for a claim is typically within 3 months but revised claims can appear up to two years after the service was rendered if an error is found during an audit. Public payers have federal laws governing timely payment of claims.
- To determine the insurance product type in the pharmacy file, use PHDAPCD.PHARMACY PHARM_INSURANCE_TYPE
- Select cost fields and what they contain:
 - Paid amount (PHARM_PAID): The payment made by the health plan to the health care provider for the claim line (usually excludes patient paid amount)
 - Billed or Charge amount (PHARM_CHARGED): The amount billed by the health care
 provider for the claim line. This amount reflects what the provider hopes to get for the
 service, and often differs from the final paid amount.
 - Allowed amount (PHARM_ALLOWED_AMOUNT): The maximum amount a plan will pay
 for the claim line (includes plan and patient out-of-pocket payments); usually based on
 pre-negotiated rates.

- Paid amount (PHARM_PAID): The payment made by the health plan to the health care provider for the claim line (usually excludes patient paid amount)
- Patient payment fields: PHARM_COINSURANCE, PHARM_COPAY, PHARM_DEDUCTIBLE
- What claims are in the MA APCD? Post-adjudicated paid claims.
 - o Fully denied claims are not submitted to the APCD.
 - In the case where a claim has some lines paid and some lines denied, the APCD will
 receive the entire claim, including the denied claims.
 - For claims that are overturned or re-adjudicated, the MA APCD gets the original denial and the new paid version of the claim.

Years Currently Covered: 2014-2022

More information: http://www.chiamass.gov/ma-apcd/

PHDAPCD.PRODUCT

Brief Description: Covers information on insurance products such as the type of insurance product and the coverage provided. Can be linked into the medical, dental, and pharmacy claims data.

Data Owner: Center for Health Information and Analysis (CHIA)

Population: The MA APCD includes data on coverage and services for the vast majority of Massachusetts residents with public or private insurance.

Important Data Notes:

- Does not include:
 - Workers' Compensation
 - o TRICARE and the Veterans Health Administration
 - Federal Employees Health Benefit Plan
 - Indian Health Services Care
 - o Medicare Fee for Service (i.e., Medicare Part A, Medicare Part B)
- Information on uninsured individuals is only included to the extent that they enroll in the Commonwealth's Health Safety Net.
- Beginning in early 2016, as a result of the Supreme Court decision in Gobeille v. Liberty Mutual, some employers who offer self-funded ERISA plans have been removed from the MA APCD. There are several self-insured plans that are not subject to ERISA, such as those operated by state agencies, municipalities, the Group Insurance Commission, Medicare, and Medicaid. The decision does not prohibit the voluntary submission of self-insured plan data to the MA APCD. At the end of 2017 reporting period, approximately 75% (or about 1.75 million members) of self-insured Member Eligibility data is missing from the MA APCD.

Years Currently Covered: 2014-2022

More information: http://www.chiamass.gov/ma-apcd/

PHDAPCD.PROVIDER

Brief Description: Covers information on health providers in the medical, dental, and pharmacy claims data.

Data Owner: Center for Health Information and Analysis (CHIA)

Population: The MA APCD includes data on coverage and services for the vast majority of Massachusetts residents with public or private insurance.

Important Data Notes:

- Does not include:
 - Workers' Compensation
 - o TRICARE and the Veterans Health Administration
 - o Federal Employees Health Benefit Plan
 - Indian Health Services Care
 - Medicaid Fee for Service (i.e., Medicare Part A, Medicare Part B)
- Information on uninsured individuals is only included to the extent that they enroll in the Commonwealth's Health Safety Net.
- Beginning in early 2016, as a result of the Supreme Court decision in Gobeille v. Liberty Mutual, some employers who offer self-funded ERISA plans have been removed from the MA APCD. There are several self-insured plans that are not subject to ERISA, such as those operated by state agencies, municipalities, the Group Insurance Commission, Medicare, and Medicaid. The decision does not prohibit the voluntary submission of self-insured plan data to the MA APCD. At the end of 2017 reporting period, approximately 75% (or about 1.75 million members) of self-insured Member Eligibility data is missing from the MA APCD.

Years Currently Covered: 2014-2022

More information: http://www.chiamass.gov/ma-apcd/

Birth Data

PHDBIRTH.BIRTH_INFANT

Brief Description: Data are reported to the Registry of Vital Records and Statistics (RVRS) by all licensed birthing hospitals and birthing centers and by city and town clerks if they are establishing a home birth that occurred in their city/town in Massachusetts. Birth certificates include worksheets completed by the hospital and by the parents.

Data Owner: Registry of Vital Records and Statistics (RVRS)

Population: Infants born to MA residents

Important Data Notes: As legal records, the information recorded on birth certificates is considered highly accurate. However, some information like race and Hispanic ethnicity are not always fully populated.

In February 2011, RVRS implemented the Vitals Information Partnership (VIP) System to replace the Electronic Birth System (EBC). Not all birthing facilities started using VIP in February. For this reason, there is partial birth data in EBC and VIP. For birth records from the Mainframe (system=1) please note that in order to determine counts of specific abnormal conditions, complications of labor and delivery, prenatal tests and procedures, risk factors for this pregnancy, labor and delivery procedures, congenital anomalies, and neonatal procedures you need to select both the None of the Above as 2 (No), and Yes for each specific abnormal conditions, complications of labor and delivery, prenatal tests and procedures, risk factors for this pregnancy, labor and delivery procedures, congenital anomalies, and neonatal procedures.

Important exclusions from final infant file, as a consequently, there might be a mother record but not an infant record:

- Infants not matched to CHIA
- Multiple infants that matched to CHIA but had same CHIA matching ID and same match level.
- Multiple infants that matched to CHIA but had same CHIA matching ID and match level=2.

VIP notes:

- Also note that for 2011, the VIP variables for parity, gravidity and Kotelchuck might not reliable. There were also some specific hospital issues with the following:
- Statistical birth data from Beverly hospital may not be complete as a result of data not being entered because of a shortage in staff.
- As a result of coding problems, Brigham records may have Y for more than one option for each section when only one option could only be Y:
 - Type of Cleft Lip/Palate: MI CLEFT and MI CLEFT P
- The field, CERTIFIER IS ATTENDANT, IS NOT RELIABLE FOR 2011.
- Facility# 2061 NORTH ADAMS REGIONAL HOSPITAL closed in March 2014
- Brigham and Women's Hospital (Fac#: 2341) switched to EPIC on 5/31/2015--the following fields are now included in the import file. The following fields were either manually entered or not captured by BWH at all: MCOND_C_SEC, MCOND_C_SEC_NUM, MCOND_OTHER, MCOND_OTHER, MCOND_NONE_2, MCOND_CVS, MCOND_TEST_OTHER, MCOND_TEST_OTHERL, MI_INTENS_CARE, MCOND_ECV_F, MI_UNPL_OP, MI_PROC_OTHER, MI_PROC_OTHERL, MI_NONE_6, ICOND_OTHER, ICOND_OTHERL, ICOND_NEO_PROC_OTHERL, MI_HEART_OTHER_CB, MI_HEART_OTHER, MI_MUSCULO_OTHER, MI_MUSCULO_OTHERL, MI_DOWN_P, MI_ANOMALY_OTHER, MI_ANOMALY_OTHERL, MI_NONE_8, TRANSFER2_INTERNAL, TRANSFER2_INTERNAL_TO.
- Holy Family Hospital and Medical Center (Fac#: 2225) changed name to Steward Holy Family Hospital as of 10/28/2016 in VIP
- Harrington Hospital (Facility ID: 2143) closed maternity dept on 10/01/2017, and Morton Hospital (Facility ID: 2022) closed their maternity dept on 12/01/2017.
- Microcephaly (MI_MICROCEPH) was added to VIP on 08/01/2017
- HEALTHALLIANCE HOSPITAL officially changed their name to UMASS MEMORIAL HEALTHALLIANCE-CLINTON HOSPITAL in October 2017. We found out in Nov 2018. Changes in

VIP effective 11/27/2018. The new name reflects a few campuses. It was decided and agreed upon by Melody Perea, Director of Maternal Child Health, that HEALTHALLIANCE HOSPITAL can be changed to HEALTHALLIANCE-CLINTON HOSPITAL, LEOMINSTER in VIP.

Years Currently Covered: 2011-2022

PHD Matching Rate: Level 1 match: 86.4% | Overall match: 90.5

More information: https://www.mass.gov/lists/birth-data

PHDBIRTH.BIRTH MOM

Brief Description: Data are reported to the Registry of Vital Records and Statistics (RVRS) by all licensed birthing hospitals and birthing centers and by city and town clerks if they are establishing a home birth that occurred in their city/town in Massachusetts. Birth certificates include worksheets completed by the hospital and by the parents.

Data Owner: Registry of Vital Records and Statistics (RVRS)

Population: MA residents who gave birth

Important Data Notes: The Vitals Information Partnership (VIP) system is designed to streamline and integrate vital event registration, securely, across the Commonwealth. In February 2011, RVRS implemented the Vitals Information Partnership (VIP) System to replace the Electronic Birth System (EBC). Not all birthing facilities started using VIP in February. For this reason, there is partial birth data in EBC and VIP. As legal records, the information recorded on birth certificates is considered highly accurate. However, some information like race and Hispanic ethnicity are not always fully populated.

For birth records from the Mainframe (system=1) please note that in order to determine counts of specific abnormal conditions, complications of labor and delivery, prenatal tests and procedures, risk factors for this pregnancy, labor and delivery procedures, congenital anomalies, and neonatal procedures you need to select both the None of the Above as 2 (No), and Yes for each specific abnormal conditions, complications of labor and delivery, prenatal tests and procedures, risk factors for this pregnancy, labor and delivery procedures, congenital anomalies, and neonatal procedures. In June of 2016, a new option for education was added for "Special education".

- Also note that for 2011, the VIP variables for parity, gravidity and Kotelchuck might not reliable. There were also some specific hospital issues with the following:
- Statistical birth data from Beverly hospital may not be complete as a result of data not being entered because of a shortage in staff.
- As a result of coding problems, Brigham records may have Y for more than one option for each section when only one option could only be Y:
 - o **Hypertension and Eclampsia:** MCOND_HYPER_PRE_E and MCOND_HYPE_E
 - Hypertension and when during pregnancy: MCOND_HYPE_P and MCOND_HYPE_G
 - Diabetes and when during pregnancy: MCOND_DIABETES_P, MCOND_DIABETES_G and MCOND_PRE_DIABETES

- Mother's Weight Change during pregnancy: MCOND WT GAIN and MCOND WT LOSS
- Type of Labor: MCOND_PRIC and MI_LONG2STAGE
- Type of Rupture of Membranes: MCOND_PROM and MI_RUPTURE
- The field, CERTIFIER IS ATTENDANT, IS NOT RELIABLE FOR 2011.
- Facility# 2061 NORTH ADAMS REGIONAL HOSPITAL closed in March 2014
- The following insurance fields were opened up for data entry in 2014 (there had been a defect
 in the system where the text boxes did not open up to allow users to enter values: 1.
 PAY_TYPE_OTHER; 2. PAY_MANAGED_CARE_OTHER; 3. LD_PAY_TYPE_OTHER; 4.
 LD_PAY_MANAGED_CARE_OTHER
- Brigham and Women's Hospital (Fac#: 2341) switched to EPIC on 5/31/2015--the following fields are now included in the import file. The following fields were either manually entered or not captured by BWH at all: MCOND_C_SEC, MCOND_C_SEC_NUM, MCOND_OTHER, MCOND_OTHER, MCOND_NONE_2, MCOND_CVS, MCOND_TEST_OTHER, MCOND_TEST_OTHERL, MI_INTENS_CARE, MCOND_ECV_F, MI_UNPL_OP, MI_PROC_OTHER, MI_PROC_OTHERL, MI_NONE_6, ICOND_OTHER, ICOND_OTHERL, ICOND_NEO_PROC_OTHERL, MI_HEART_OTHER_CB, MI_HEART_OTHER, MI_MUSCULO_OTHER, MI_MUSCULO_OTHERL, MI_DOWN_P, MI_ANOMALY_OTHER, MI_ANOMALY_OTHERL, MI_NONE_8, TRANSFER2_INTERNAL, TRANSFER2_INTERNAL_TO.
- Holy Family Hospital and Medical Center (Fac#: 2225) changed name to Steward Holy Family Hospital as of 10/28/2016 in VIP.
- Harrington Hospital (Facility ID: 2143) closed maternity dept on 10/01/2017, and Morton Hospital (Facility ID: 2022) closed their maternity dept on 12/01/2017.
- HEALTHALLIANCE HOSPITAL officially changed their name to UMASS MEMORIAL
 HEALTHALLIANCE-CLINTON HOSPITAL in October 2017. We found out in Nov 2018. Changes in
 VIP effective 11/27/2018. The new name reflects a few campuses. It was decided and agreed
 upon by Melody Perea, Director of Maternal Child Health, that HEALTHALLIANCE HOSPITAL can
 be changed to HEALTHALLIANCE-CLINTON HOSPITAL, LEOMINSTER in VIP.
- New Items added 07/16/2018:
 - New Progesterone section on 12 Parent Confidential:
 In any prior pregnancy, did the baby arrive more than 3 weeks early as mother went into labor, or her water broke? PROG_ARRIVE_EARLY
 Was mother told she had short cervix during this pregnancy? PROG_SHORT_CERVIX
 Was mother offered progesterone during this pregnancy? PROG_OFFERED_PROG
 Did mother receive progesterone during this pregnancy? PROG_RECEIVED_PROG
 - New Other Self-Reported Items on tab 12 Parent Confidential:
 Oral health conditions (e.g., swollen or bleeding gums, dental decay, signs of infection)
 MCOND_DENTAL_COND
 If dental visit is more than 6 months or if any oral health problems identified, were you referred to a dentist? MCOND_DENTAL_REFER
 - New Item added to Method of Delivery section of tab 15 Labor and Delivery:
 Was this an elective delivery that was scheduled for convenience of patient or obstetrical provider? MI ELECTIVE CONVENIENCE.
 - New items added in Test and Procedures section on tab 14 Prenatal 2
 Influenza (Flu) Vaccine: MCOND_FLU_VAC
 Tdap Vaccine: MCOND_TDAP_VAC
- Removed from 2018 file because VIP never collected in MA (the fields existed but the values were not reliable):

No, not Spanish/Hispanic/Latina: METHNIC_NO No, not Spanish/Hispanic/Latino: FETHNIC NO

Years Currently Covered: 2011-2022

PHD Matching Rate: Level 1 match: 95.8%% | Overall match: 97.2%

More information: https://www.mass.gov/lists/birth-data

Bureau of Substance Addiction Services (BSAS) Treatment Data

PHDBSAS.BSAS

Brief Description: BSAS is the single state authority responsible for regulating and licensing substance addiction treatment providers. BSAS is also the payer of last resort for the uninsured and underinsured residents of the Commonwealth. All treatment providers who receive funding from BSAS are required to submit data to BSAS to carry out the responsibilities listed under the law.

Data Owner: Bureau of Substance Addiction Services (BSAS)

Population: Clients served through the BSAS system who are MA residents.

Important Data Notes:

- 1. Mainly licensed or contracted treatment providers that receive funding from the Department submit this data to BSAS, there are a few exceptions of non-contracted providers who submit data.
- BSAS treatment records are updated regularly. Updates add a treatment records for a the prior five years. Where ENR_DATE_BSAS and program details are identical for two records, analysts should choose the latest DIS_DATE_BSAS record.
- 3. One record may span several update years (with missing DIS_DATE_BSAS indicating still enrolled) The ENR_DATE_BSAS and DIS_DATE_BSAS, and CLIENT_ID variables should be used to identify the full length of service.
- 4. BSAS records may be "back-to-back" where the ENR_DATE_BSAS is the same or next day as the previous DIS_DATE_BSAS. These records should be treated as the same treatment event.
- 5. BSAS Demographic data is mostly self-reported. There may be incidents where provider selects the race and sex for client.
- 6. CLT_ENR_PRIMARY_DRUG, CLT_ENR_SECONDARY_DRUG, and CLT_ENR_TERTIARY_DRUG variables should be used to identify the first three substances for which the client is seeking treatment, these are provided by clients upon enrollment/admissions.
- 7. Outpatient treatment data is incomplete and does not include all non-BSAS paid services.
- 8. PDM_PRV_CAT Service categories evolve with best practices and regulatory requirements, including Covid-19 related regulatory changes, **they do not indicate specific treatment provided**. Records should be matched with APCD and PMP to verify whether medication assisted treatments are provided and for specific diagnoses related to substance misuse.

- 9. MOUD in BSAS: BSAS programs change constantly by adding new services and modifying existing ones. This makes it difficult to determine what medication is each client receiving in each one of these settings. For complete MOUD flagging in the PHD, use the MOUD dataset (PHDSPINE.MOUD), The following list describes MAT medications in BSAS programs (methadone, buprenorphine naltrexone):
 - a. Methadone Treatment primarily methadone, but all three are offered.
 - b. OBOT primarily bup but all three are offered. (Verify in PMP or APCD)
 - c. SYTI MAT all three verify (records in PMP or APCD)
- 10. OUCC/CTM/TAT for these services only include clients that are linked to PMP or APCD for Bup and Naltrexone treatment. We cannot assume that the remainder are methadone clients. A significant portion of OUCC clients were referred to ATS and other services according to information submitted at discharge.
- 11. Correctional MAT Variable by HOC, some do all three verify treatment in PMP or APCD
- 12. BSAS programs constantly evolve and add new services. The METHADONE_BSAS variable determines when an individual has had Buprenorphine, Naltrexone or both, and by process of elimination METHADONE.
- 13. Enhanced MAT do not consider these in your analysis. This is a wraparound service that can be offered to clients who are on MAT OR clients with stimulant use disorder. Those with concurrent MAT record will be captured under Methadone treatment and OBOT. The rest of the enrollments into this service type represent a combination of stimulant use disorder clients or those whose MAT records are missing.
- 14. PDM_PRV_SERV_TYPE variable describes numerous BSAS programs and can be used to identify treatments provided.
 - To identify only detox use PDM PRV SERV TYPE=5 Acute Treatment Services.
 - PDM_PRV_SERV_TYPE=53 is Section 35 services.
 CLT_TYPE_SECTION35 is a derived variable from questions asked at enrollment assessment by some service types like Acute Treatment Services and Section 35. There were some changes to how the questions being asked over the years.
- 15. **Incarceration status**. Several BSAS variables indicate an individual is incarceration at, during or after enrollment. BSAS does not verify incarceration. To verify incarceration status, link the BSAS treatment record with DOC, HOC, HOCSURVEY and HOCMOUD datasets. The following variables have greater than 90% linkage with the incarceration datasets (as of 9/2023 not all jails are included in the PHD HOC dataset so the incarceration data is not complete) and can be used to identify programs during incarceration:
 - a. PDM_PRV_SERV_TYPE =15, 88, 98, 101 and 109 (county corrections, correctional MAT, MOUD Surveillance, Medication Assisted Re-Entry Initiative and Pre-Release Re-Entry Services for Black & Latino Men).
 - b. Note: PDM_PRV_SRV_TYPE 15: COUNTY CORRECTIONS is an unlicensed treatment program which is independent of the MAT program HOC-MAT.

Incarcerated as enrollment and disenrollment status can be identified using:

c. CLT_DIS_EMPLOYMENT_BSAS=10 or CLT_ENR_EMPLOYMENT=10 (Incarcerated)

- d. DIS_REFERRAL1_BSAS:DIS_REFERRAL3_BSAS =65 (County Jail/ House of Corrections)
- e. DIS_REASON_TYPE=8 (Incarcerated).
- 16. ATS programs are medically monitored detoxification services. Programs provide 24-hour nursing care, under the consultation of a medical director, to monitor an individual's withdrawal from alcohol and other drugs and to alleviate symptoms.
- 17. Opioid Urgent Care Centers started enrolling clients with OUD in 2017 but BSAS didn't collect assessments from these clients and therefore no primary substances were reported for this group.
- 18. "County Correction" refer to services that are regulated but not licensed by BSAS, offer outpatient-like services in an inpatient setting, and BSAS has historically funded these services through ISAs with HOCs.
- 19. OTP and OBOT providers might and do prescribe Vivitrol, but there is no consistent way to identify clients on Vivitrol. This was captured under Client Type variable until recently when it got replaced by a set of questions that collect more detailed information about the medication.
- 20. BSAS does not collect data from providers that prescribe Vivitrol or from non-contracted Buprenorphine providers.
- 21. The Methadone variable compares MAT treatment records and determines by process of elimination which are methadone. Collected in regard to section 35 commitments are incomplete in the BSAS data set.
- 22. Three variables related to addiction services while pregnant were removed from the dataset in 2023. They were derived from BSAS payment data to identify if clients received pregnant/post-partum enhanced services in residential programs.
 - PREG_ENH Pregnant Enhancement (participation in residential program)
 - POSTPARTUM_ENH Postpartum Enhancement (participation in residential program). This postpartum program lasts for 6 months postpartum.
 - POSTPARTUM_ENH_MBHP Postpartum Enhancement MBHP only (participation in residential program) homelessness. This postpartum program lasts for 6 months, is not a pregnancy diagnosis but a specific program for postpartum services
- 23. New variables related to homelessness were added:

CLT_HOMELESS_AT_ENROLLMENT is derived from several questions on intake and enrollment assessment form. If the client has a completed intake with 14 days prior to an enrollment, then the client's reported address type (Home, Homeless) on the intake is used to determine whether the client was homeless at the point of enrollment.

If there was no address type available within 14 days of a completed intake, or the address type was unable to establish certain homelessness status (e.g., Business or Mailing address types), then the variables "Does the client rent or own a house or apartment" and "Where did the client stay last night" are used to determine whether the client was homeless at the point of enrollment.

For these variables, several possible responses were still unable to provide concrete information as to whether the client was truly homeless at the point of enrollment. These individuals have been categorized as "Unable to determine homelessness at enrollment".

24. Detox beds. The number of detox beds has increased from 2014 to 2018 not every detox provider in MA reports to BSAS. We estimate BSAS represents ¼ to 1/3 of detox beds in MA and the distribution between non-profit and for-profit programs may change over the course of the years resulting in fluctuations in BSAS admissions.

25. New variables added in September 2023

PDM PROVIDER ID –This ID variable is specific to the medical provider.

ENR_STATUS_BSAS - This variable can be used to distinguish whether an enrollment is closed, active, or expired based.

SECTION 35 CLIENT TYPE - this variable indicates whether a client is a section 35 enrollment

DIS_REFERRAL_1, DIS_REFERRAL_2, DIS_REFERRAL_3 - Primary Referral at Disenrollment, Secondary Referral at Disenrollment, Tertiary Referral at Disenrollment. This variable indicates what services a client was recommend/referred to and whether they realized them or similar services as an indication of successful linkage to further treatment.

CLT_DIS_EMPLOYMENT - Client's Employment Status at Disenrollment. Employment is asked at enrollment; when available, it may be indicative of a dispositional change in the client and may be valuable for pre/post evaluation work. Employment is not verified.

CLT ENR HOUSING and CLT DIS HOUSING Usual Housing at Enrollment and Disenrollment

Years Currently Covered: 2011-2023

PHD Matching Rate: Level 1 matching: 96.0 I Overall match: 98.3%

More information: https://www.mass.gov/orgs/bureau-of-substance-addiction-services

PHDBSAS.HOCMOUD

Brief Description: Seven Massachusetts county jails (Essex, Franklin, Hampden, Hampshire, Middlesex, Norfolk, Suffolk) were legislatively mandated to offer all FDA-approved medications for opioid use disorder (MOUD). Berkshire and Bristol county jails later voluntarily joined the pilot program. This dataset collects information on individuals who enroll in the MOUD program at one of these county jails, such as MOUD type, employment history, disability, mental health, services received from state agencies, and history of substance use.

Data Owner: Bureau of Substance Addiction Services (BSAS)

Population: Individuals who received MOUD in any of the nine participating county jails

Important Data Notes:

Program officially began September 1, 2019

Years Currently Covered: 2019-2022

PHD Matching Rate: Level 1 Matching: 96.1% | Overall match: 97.5%

PHDBSAS.HOCMOUD_Period

Brief Description: Seven Massachusetts county jails (Essex, Franklin, Hampden, Hampshire, Middlesex, Norfolk, Suffolk) were legislatively mandated to offer all FDA-approved medications for opioid use disorder (MOUD). Berkshire and Bristol county jails later voluntarily joined the pilot program. This dataset contains a brief assessment to collect intermittent data on individuals who received MOUD in the facility, such as urine screens and health information.

Data Owner: Bureau of Substance Addiction Services (BSAS)

Population: Individuals who received MOUD in any of the nine participating county jails

Important Data Notes:

• Program officially began September 1, 2019

Years Currently Covered: 2019-2022

PHD Matching Rate: Level 1 Matching: 80.2% | Overall match: 93.8%

PHDBSAS.HOCMOUD_DIS

Brief Description: Seven Massachusetts county jails (Essex, Franklin, Hampden, Hampshire, Middlesex, Norfolk, Suffolk) were legislatively mandated to offer all FDA-approved medications for opioid use disorder (MOUD). Berkshire and Bristol county jails later voluntarily joined the pilot program. This dataset contains an assessment on individuals who received MOUD in the jail prior to release.

Data Owner: Bureau of Substance Addiction Services (BSAS)

Population: Individuals who received MOUD in any of the nine participating county jails

Important Data Notes:

Program officially began September 1, 2019

Years Currently Covered: 2019-2022

PHD Matching Rate: Level 1 Matching: 94.0% | Overall match: 97.3%

PHDBSAS.HOCSURV

Brief Description: Seven Massachusetts county jails (Essex, Franklin, Hampden, Hampshire, Middlesex, Norfolk, Suffolk) were legislatively mandated to offer all FDA-approved medications for opioid use disorder (MOUD). Berkshire and Bristol county jails later voluntarily joined the pilot program. This dataset contains an assessment on individuals who screened positive for OUD but did not receive MOUD in the jail prior to release.

Data Owner: Bureau of Substance Addiction Services (BSAS)

Population: Individuals with OUD in any of the nine participating county jails

Important Data Notes:

Program officially began September 1, 2019

Years Currently Covered: 2019-2022

PHD Matching Rate: Level 1 Matching: 93.1% | Overall match: 95.3%

COVID-19 Data

PHDMIIS.COVID

Brief Description: This dataset contains data on immunizations against COVID-19. In 2020, the covid-19 vaccine became available to Massachusetts residents. From 2020 through 2021, the COVID-19 vaccines were administered in three phases according to eligibility criteria. Per Massachusetts legislation and regulations, all licensed health care providers must report administered immunizations to the Massachusetts Immunization Information System (MIIS). The MIIS COVID-19 vaccine database includes individuals with a Massachusetts address whose provider reported they received a COVID-19 vaccine.

Data Owner: Bureau of Infectious Disease and Laboratory Sciences (BIDLS)

Population: Individuals with a Massachusetts address whose provider reported they received a COVID-19 vaccine.

Important data notes:

- Race/ ethnicity are self-reported. Additionally, there is a higher than usual reporting of "other" as race in this dataset because of varying vaccine site practices.
- An individual can appear multiple times in the dataset.
- Only individuals with a Massachusetts address are included. Individuals with out of state addresses do not appear in this dataset.
- Massachusetts residents who received a vaccine in Rhode Island and veterans who received a vaccine through the New England Veterans Administration Healthcare System are included in

this data. MIIS exchanges data with the Rhode Island Adult and Child Immunization Registry and the New England Veterans Administration Healthcare System.

- Not all Massachusetts residents who received a vaccine out of state will be reflected in this dataset.
- Matched records had a mean age that is about 10 years older than unmatched records.

Years Currently Covered: 2020-2023

PHD Matching Rate: Level 1 Matching Rate: 95.0% | Overall Matching Rate: 96.8%

More information: https://www.mass.gov/info-details/about-the-massachusetts-immunization-

information-system-miis

PHDCOVID.COVID_MAVEN

Brief Description:

Test results of COVID-19 are reported into the Massachusetts Epidemiologic Virtual Network (MAVEN) from the state lab. This dataset consists of information on whether the resident was a probable or confirmed case of COVID, if resident experienced any underlying illness and which symptoms (coughing, fever, shortness of breath, received ventilation, etc.) did they have, outcome of resident, and date of first positive COVID test.

Data Owner: Bureau of Infectious Disease and Laboratory Sciences

Population: All Confirmed and Probable cases of COVID-19 reported in MAVEN among MA residents.

Important Data Notes:

- Dataset only consist of data that is reported to state lab or input from providers in MAVEN.
 - Does not have case information on residents who have taken at home COVID-19 test and did not report.

Years Currently Covered: 2020-2023

PHD Linkage Rate:

• Level 1 Matching: 93.8%

• Level 1 and 2 Matching: 95.9%

More information: https://www.mass.gov/lists/infectious-disease-data-reports-and-reports-an

Death Data

PHDDEATH.DEATH

Brief Description: The official cause of death and the manner of death (i.e., intentional, unintentional, or undetermined) are assigned by physicians and medical examiners. Each death certificate also includes demographic information such as age, race, ethnicity, gender, educational attainment, marital status, and occupation. These basic demographics are recorded by the funeral director and are typically provided by a family member.

Data Owner: Registry of Vital Records and Statistics (RVRS)

Population: All MA residents who died

Important Data Notes:

- Causes of death from the OCME often lag the date of death making some elements of death data less timely than others
- The Vitals Information Partnership (VIP) system is designed to streamline and integrate vital event registration, securely, across the Commonwealth. The deaths application in VIP was launched in Nov 2014, resulting in some variable changes.
- In June of 2016, a new option for education was added for "Special education".
- 2019 data might not be as complete. NCHS and OCME are still updating records.
- As legal records, the information recorded on death certificates is considered highly accurate.
 However, some information like race, Hispanic ethnicity, educational attainment, marital status, and occupation are not always fully populated. Causes of death from the OCME often lag the date of death making some elements of death data less timely than others.
- Opioid death=1 is based on ICD codes or ME narrative when the case is pending. Not all deaths
 are referred to ME, and not all referred cases are accepted by the ME. Therefore,
 opioid_death=1 is likely an undercount of opioid overdose deaths in Massachusetts. For a
 complete list of circumstances for referral please see MA General Law Part I, Title VI, Ch 38,
 Section 3 (https://malegislature.gov/Laws/GeneralLaws/PartI/TitleVI/Chapter38/Section3)

Years Currently Covered: 2011-2022

PHD Matching Rate: Level 1 match: 91.6% | Overall match: 93.1%

More information: https://www.mass.gov/lists/death-data

Department of Correction (DOC) Release Data

PHDDOC.DOC

Brief Description: The Department of Correction (DOC) is required by statute to maintain adequate records of persons committed to the custody of the Department. In addition, DOC must establish and maintain programs of research, statistics, and planning, and conduct studies relating to correctional programs and responsibilities of the Department. To achieve those goals, DOC maintains a database of individuals incarcerated in Massachusetts prisons.

Data Owner: Department of Correction (DOC)

Population: MA residents incarcerated in a MA prison and released to the street

Important Data Notes:

Massachusetts residents incarcerated outside of Massachusetts are not captured in this dataset

Years Currently Covered: 2011-2023

PHD Matching Rate: Level 1 Matching Rate: 93.1% | Overall Matching Rate: 96.5%

More information: https://www.mass.gov/lists/department-of-correction-annual-reports

Important Data Notes:

- This dataset only includes individuals who have been released between 2011 and 2023
- Previous to 2019, the designation of "Serious Mental Illness" was decided by DOC clinical mental health professional.
- The Massachusetts "Criminal Justice Reform Act" of 2018 defined "Serious Mental Illness" (SMI): For purposes of assessing whether Restrictive Housing may be clinically contraindicated, or whether an inmate in Restrictive Housing should be placed in an alternative unit, the term "Serious Mental Illness" shall be defined as the following:
 - A current or recent diagnosis by a Qualified Mental Health Professional of one or more of the following disorders described in the most recent edition of the Diagnostic and Statistical Manual of Mental Disorders:
 - schizophrenia and other psychotic disorders.
 - major depressive disorders.
 - all types of bipolar disorders.
 - a neurodevelopmental disorder, dementia, or other cognitive disorder.
 - any disorder commonly characterized by breaks with reality or perceptions of reality.
 - all types of anxiety disorders.
 - trauma and stressor related disorders; or
 - severe personality disorders; or
 - a finding by a Qualified Mental Health Professional that the inmate is at serious risk of substantially deteriorating mentally or emotionally while confined in Restrictive Housing, or already has so deteriorated while confined in Restrictive

Housing, such that diversion or removal is deemed to be clinically appropriate by a Qualified Mental Health Professional.

- Medication Assisted Treatment Re-Entry Initiative (MATRI) treated individuals with alcohol and/or opioid use disorder
 - Program was in effect from July 2014 to October 2020
- The following variables only apply to inmate_type_doc = 2 : gov_offense_doc, security_level, violent_crime
- Civil commitment definition: A male who has been committed by a court to Bridgewater or "Civil" State Hospital pursuant to G.L. c. 123, section 7 and 8, 15, 16 or 18; or to the Massachusetts Alcohol and Substance Abuse Center pursuant to G.L. c. 123, § 35; or to the Massachusetts Treatment Center pursuant to G.L. c. 123A; a female who, prior to April 24, 2016, was committed to MCI-Framingham pursuant to G.L. c. 123, § 35; or a female who has been committed to MCI-Framingham, a branch of the Massachusetts Treatment Center, pursuant to G.L. c. 123A.
- For Custody_DOC:
 - Custody = An inmate who is incarcerated in a Massachusetts DOC facility. An individual is considered to be under Massachusetts DOC jurisdiction when the Commonwealth has legal authority over the individual regardless of where the inmate is being held. DOC Jurisdiction includes those incarcerated in Massachusetts DOC facilities and those housed in correctional facilities outside of the Massachusetts DOC (i.e., Massachusetts Houses of Correction, other states' correctional facilities and the Federal Bureau of Prisons).
 - CFI includes inmates housed in correctional facilities outside of the Massachusetts DOC (i.e., Massachusetts houses of correction, other states' correctional facilities and the Federal Bureau of Prisons).
- Institution variable represents DOC facility where individual was released from on their release date. An individual may be moved between DOC institutions during their incarceration
- Release to Community variable only applies to inmate_type_doc = 2
- "RTS" is a DOC classification that implies "release to street" but that it not what happens for every release. It is better to think of codes marked as "RTS" as paroles.

Below are the dates on which Spectrum Health Systems began provided medications for opioid use disorder in various DOC facilities:

- MCI Framingham 10/1/2020
- MCI Cedar Junction 10/1/2020
- MCI Shirley Medium 10/1/2020
- South Middlesex CC 10/1/2020
- Souza-Baronowski 12/30/2020
- NECC 8/17/21
- MCI Concord 5/1/2022
- Pondville CC 5/1/22
- Old Colony CC 11/21/2022

Release Code	Release Description	Notes
137	HABEAS to Court - Sentenced	Physically appeared in court. Only applies to pre-trial or civil commitments. Sentenced to either HOC or DOC
138	HABEAS to Court – Did not return	Physically appeared in court. Only applies to pre-trial or civil commitments. DOC does not know where they went after court appearance
144	Escape	Only applies to inmate_type_doc = 2
159	Release from out of state/fed detainer	They are sent to another state or federal facility
171	Bailed/Rel on Personal Recognizance	Only applies to pre-trial
187	Parole to From & After HOC sentence	Judge is essentially paroling first sentence so that individual can begin new sentence
189	Parole to From & After DOC sentence	Judge is essentially paroling first sentence so that individual can begin new sentence
240	Release from civil commitment	Could go to different jail or could go to community
262	Evidence Room Court Release/Braintree PD	Applies to specific case where Braintree police officer mishandled evidence and inmates were commuted or released
292	Medical Parole	Before 2020, this could be considered release_to_community. With COVID, some came back if their condition improved.
325	Elopement	Only applies to pre-trial
437	Video conference/Other Court Order - Sent	only applies to pre-trial. Had a video call instead of being in court; sentenced
450	Video Conference/Other Court Order -Rel	Only applies to pre-trial; had a video call instead of being in court; released

Executive Office of Housing and Livable Communities (EOHLC, formerly DHCD)

PHDDHCD.DHCD

Brief Description: EOHLC collects and maintains data on all persons receiving services from the Executive Office.

Data Owner: Executive Office of Housing and Livable Communities (EOHLC)

Population: Heads of household who received services from the Emergency Assistance Program; covers just emergency shelter data.

Important Data Notes:

• Data only includes services provided to families

• Only data on head of household is included

• Only covers emergency shelter data

• Covers clients active between 1/1/2011 and 12/31/2022

Years Currently Covered: 2011-2022

PHD Matching Rate: Level 1 Matching Rate: 91.9% | Overall Matching Rate: 97.1%

More information: https://www.mass.gov/emergency-housing-assistance-programs

Department of Industrial Accidents (DIA) – Worker's Compensation Data

PHDDIA.DIA

Data Owner: Department of Industrial Accidents

Population: Residents of Massachusetts who filed a Worker's Compensation Claim from 2011-2022

Important Data Notes:

- Census_OCC_DIA is auto coded to Census 2018 (<u>Industry and Occupation Code Lists & Crosswalks (census.gov)</u> and BLS_OCC_DIA is auto coded to SOC 2018 (201 Standard Occupational Classification System (bls.gov)) using CDC's NIOCCS system. (<u>CDC NIOSH Industry and Occupation Computerized Coding System (NIOCCS) NIOSH</u>). NIOCCS is a web application used to translate industry and occupation text into standardized codes so that researchers can analyze their data. The 2018 SOC coding has 540 Occupational code groupings.
- 2. The dataset includes MA residents from out of state company headquarters and where incidents are out of state.
- 3. Data is reported by insurers, employers, and attorneys. Occasionally, although rarely, an employee will represent themselves and complete the forms.
- 4. Multiple incidents may exist for individuals, and the NAIC_DIA, BLS_OCC_DIA and CENSUS_OCC_DIA codes are incomplete for some incidents of the same individual. A person may have multiple injuries with different industry and occupation codes. The majority of records had a BLS_OCC_DIA code (72.3%) code.
- 5. NAIC_DIA field is less complete: 72.3 % had no code.
- 6. Only injuries recorded after 2011 are included in the dataset.

PHD Matching Rate: Level 1 Matching Rate: 76.6% Overall Matching Rate: 91.2%

Years Currently Covered: 2011-2022

Department of Mental Health (DMH) - Data

PHDDMH.DMH

Brief Description: The Department of Mental Health, as the State Mental Health Authority, assures and provides access to services and supports to meet the mental health needs of individuals of all ages, enabling them to live, work and participate in their communities. The Department of Mental Health (DMH), under the umbrella of the Executive Office of Health and Human Services (EOHHS), is required by statute to maintain adequate records of persons receiving services of the department. This database includes psychiatric hospitalizations, substance abuse treatment and the desire for change and stage of change, loss of housing, incarceration, use of crisis stabilization beds and employment status between January 1, 2011, and December 31, 2022.

Population: Persons receiving services from DMH.

Data Owner: Department of Mental Health

Population: Different programs and services provided by DMH are kept current and are available for the period from 1/1/2011 through 12/31/2022.

Important Data Notes:

- Data includes services provided by DMH such as Community Based Flexible Supports (CBFS) and Clubhouse Coalition programs. It does not include routine or crisis mental health services provided in hospitals, emergency departments, and the private offices of licensed mental health providers. Some of these data can be found in the APCD and Case Mix data sets.
- Inpatient and Continuing Care are synonymous. Acute Inpatient indicates a short Length of stay to manage a crisis.
- The Recovery from Addiction Programs (RAP) serve men and women civilly committed under MGL Chapter 111 Section 35. These people are civilly committed to treatment for the substance addiction whether to alcohol, opioids, stimulants, or any other substance. The RAP is not for persons in recovery from opioid use disorder only.

Years Currently Covered: 2011-2022

PHD Matching Rate: Level 1 Matching Rate: 85.2% | Overall Matching Rate: 96.0%

More information: https://www.mass.gov/orgs/massachusetts-department-of-mental-health

Department of Mental Health (DMH) - RAP

PHDDMH.RAP

Brief Description: Section 35 is a Massachusetts law that allows a qualified person to request a court order requiring someone to be civilly committed and treated involuntarily for an alcohol or substance use disorder.

In January 2016, Governor Baker signed into law a bill to prohibit the civil commitment of women facing substance use disorders at MCI-Framingham and providing addiction treatment services at 30 beds Lemuel Shattuck Hospital and Taunton State Hospital. The Women's Recovery from Addictions Program (WRAP) at Taunton State Hospital treats women civilly committed to care for a period of up to 90 days under MGL 123 Section 35 when it is determined that their substance use disorders are associated with a risk of harm to themselves or others. WRAP is licensed as an Opioid Treatment program delivering detoxification and clinical stabilization services with linkage to an aftercare component.

In July 2021, WRAP became the Recovery from Addiction Program (RAP) with the addition of four men's units. This collaboration between DMH and DPH BSAS provides services related to substance use disorders as well as specialized mental health treatment for co-occurring disorders for individuals who are civilly committed by the courts for substance use treatment for up to 90 days (i.e. section 35 commitment). As with the WRAP, the men's program has two levels of care: Enhanced/Acute Treatment Services(E/ATS) and Detoxification and Clinical Stabilization Services (CSS) in addition to Aftercare Services.

Data Owner: Department of Mental Health

Population: Persons receiving RAP services from DMH.

Years Currently Covered: 2016-2022

PHD Matching Rate: Level 1 Matching Rate: 99.3% | Overall Matching Rate: 99.8%

Department of Transitional Assistance (DTA) - Data

PHDDTA.DTA

Brief Description: Each month a "snapshot" is taken of DTA's current client base including individuals who were denied benefits. Information ranging from general demographics to individual client metrics are captured and aggregated to form a data warehouse. Information may change month to month through automated data exchanges or client interactions and is input from numerous "field" sources This monthly dataset contains household and client level data from 2011 through 2022

Data Owner: Department of Transitional Assistance

Population: Active SNAP Clients only

Important Data Notes:

- 1. Each client's data is updated monthly, CYCLE_START_DATE_DTA indicates the first day of the month of the update and CYCLE_END-DATE_DTA the last day. To determine whether a client has an active account check the CYCLE_START_DATE_DTA and CLOSED_IN_MONTH variables, if CLOSED_IN_MONTH= 1 then the account closed during the month. In some instances, the account can be reinstated during the same month. BENEFIT_EFF_DATE_DTA is the actual start date of benefits.
- 2. EARNED_INCOME and UNEARNED_INCOME, in dollars is provided by case workers or the SSA system and may have entry errors. The majority of cases (67% of unearned income, and 54% of EARNED_INCOME cases) have zero values. The maximum allowed in these data is \$100,000.
- 3. Race/ethnicity are self-reported.
- 4. Birth date and social security number (SSN) are compared to SSN records as part of an intake identity match where discrepancies are found the caseworker adjusts the record.
- 5. Use the <u>MATCH_LEVEL_DTA</u> to choose the better match (LEVEL 1) where entries for the same ID have different dates of birth, gender, or race.
- 6. DTA added a self-reported military flag Jan 1, 2018.
- 7. Occasionally DTA clients will have more than one FAMILY_ID_DTA and CASE_IDDTA. The most common example is when a person moves from ne household to another. For example a child is part of a household with their parents and later moves to a household of the grandparent.

DTA had a business process redesign on October 27, 2014. The new system transition was quite bumpy and resulted in an inability to process cases timely for several months thereafter. In that time period (November 2014-early 2015) you will see closings for income that are very likely to be related to the wage match, but also closings for 'failed.../failure...' for something to occur, which is very possibly related to the inability to process cases before they closed. For example, a client may have returned a document (include verification of wages resulting from an initial wage match) to DTA but because it wasn't processed by DTA by a certain date, the case closed for 'your certification period has ended'. I've added notes below on what is possibly/unlikely related to either the wage match or process redesign issues, but closing reasons are not always as clean as written policy would dictate, especially at a difficult time like in late 2014 and 2015. Statistically-significant increases in any closing reason correlated with this time frame can be reasonably assumed to related to the wage match automation and/or the change in business process.

PHD Matching Rate: Level 1 Matching Rate: 89.3% | Overall Matching Rate: 98.3%

Years Currently Covered: 2011-2023

More information: https://www.mass.gov/department-of-transitional-assistance-data-and-research

Executive Office of Veterans Services (EOVS, formerly known as DVS) Benefit Data

PHDDVS.DVS_CH115

Brief Description: EOVS collects information of all Massachusetts veterans receiving CH 115 benefits through EOVS. Among other data, EOVS collects data on persons who received EOVS medical, housing, or other benefits from EOVS through communities.

Data Owner: Executive Office of Veterans Services (EOVS)

Population: Veterans & their eligible dependents receiving benefits from EOVS

Important Data Notes:

• This is only a subset of all Veterans

PHD Matching Rate: Level 1 Matching Rate: 92.8% | Overall Matching Rate: 96.6%

Years Currently Covered: 2011-2023

More information: https://www.mass.gov/orgs/executive-office-of-veterans-services,

https://malegislature.gov/Laws/GeneralLaws/PartI/TitleXVII/Chapter115

PHDDVS.DVS ANN

Brief Description: EOVS collects information of all Massachusetts veterans receiving the annuity benefits through EOVS. The Commonwealth of Massachusetts offers through its Executive Office of Veterans' Services an annuity payment of \$2,000. This annuity is given in recognition of the service of 100% service-connected disabled veterans and to the parents of distinguished veterans (Gold Star Parents) and the unmarried spouses (Gold Star Wives or Husbands) of distinguished veterans who gave their lives in the service of their country during wartime. Please note there was a very low Level 1 matching rate (8.7%) for this initial data extract.

Data Owner: Executive Office of Veterans Services (EOVS)

Population: Veterans & their eligible dependents receiving benefits from EOVS

Important Data Notes:

This is only a subset of all Veterans

PHD Matching Rate: Level 1 Matching Rate: 44.2% | Overall Matching Rate: 74.2%

Years Currently Covered: Anyone actively receiving an annuity as of January 2024

More information: https://www.mass.gov/service-details/veteran-annuity-payment

Early Intervention (EI) Data

PHDEI.EI_CLIENTS

Brief Description: Early Intervention (EI) services are provided at no cost to infants/children aged 0-3 years at risk for or with established developmental delays due to birth, social/emotional and environmental factors. The referral, assessment, and service delivery data are reported electronically by Early Intervention Agencies contracted by MA DPH.

Data Owner: Bureau of Health and Family Nutrition, Division of Early Intervention

Population: Children under the age of three at risk for developmental delays

Important Data Notes:

- Contains data on children born in 2011-2019 (birth cohort) who are receiving services (CY)
- EI will be implementing a new web-based client and service delivery system to be fully implemented in the spring of 2020. Because of this, several variables are only available for 2011-2016 and won't be available starting 2017. These variables will no longer be collected
 - The variable on international adoption.
 - o FATHER_EMP_EI and Mother_EMP_EI.
 - o CUSTODY EI,
 - o RES_TYPE_EI,
 - o First Date El
 - MOM_AGE_EI
 - o REFERRALS_ANOTHER_EI
 - REFERRALS_CHILD_CARE
 - REFERRALS_COMMUNITY_PLAY
 - REFERRALS_DPH_CARE_COORD
 - REFERRALS_HEADSTART
 - REFERRALS LEA SPED
 - REFERRALS_NONE
 - location of services (HV_BABYSITTER, HV_CHILD_CARE_CENTER, HV_FAMILY_DAY_CARE, HV_HOME, HV_OTHER_FAMILY_HOME).
- There are 3 variables indicating homelessness. Collections of variables #2a began on 4/15/2017 and variables #1a & 1b on 1/1/2018. If questions regarding homelessness are asked as part of the client's form, then they not changing. Since client can have multiple evaluations questions # 2a can change the values depending on the family experience. Since 1/1/18 all 3 variables are collected. In the new system, question #1a will be dropped and Questions #1b and #2a will be collected back on the evaluation file instead of the client's file.
 - 1. On client's form is:
 - a. Is family currently homeless?? answer options yes/no
 - b. Has family been homeless in past 12 months? -answer options yes/no/unknown
 - 2. On evaluation is:

- a. Do any of the following conditions exist in the Biological or Primary Family? Homelessness? answer options yes/no/unknown
- Other: The value of other race also includes a Multi-Race category.
- There can only be one record associated with a child in the EI System. When a child's information is entered, the EI System automatically searches all of the records in the System for a potential duplicate based on the child's name, date of birth, address, and other personal identifying information. Sometimes kids could be referred to different programs close in time, get transferred, moved, or leave and come back. There could be few causes where there is a possibility that duplicate records remain.
- As per January 1, 2018, there are new values for the Discharge Reason categories on the Discharge dataset- please see El codes.
- First service date: Often in EI "service" means the time the professional time, such as assessments, evaluations. This is to determine eligibility. At that time, the child is assessed but does not receive therapeutic service. The therapeutic service starts after family plan is made. Different people and different organizations use different definitions.

PHD Matching Rate: Level 1 Matching Rate: 87.7% | Overall Match Rate: 95.3%

Years Currently Covered: 2011-2017

More information: https://www.mass.gov/orgs/early-intervention-division

Fetal Death Certificates

PHDFETAL.FETALDEATH

Brief Description: Dataset on all fetal deaths that occurred in the state.

Data Owner: Registry of Vital Records and Statistics

Population: Fetal deaths that occurred in Massachusetts

Important Data Notes:

- Fetal death data are only for reportable stillbirths. Reportable stillbirths are defined as a fetus that showed no signs of life at the time of delivery/extraction <u>and</u> was either 20 weeks or more gestation or more <u>or</u> weighed 350 grams or more. Non-reportable stillbirths are not reported to the Registry of Vital Records and Statistics.
- Starting in 2015, we began to use the NCHS/CDC fetal death report format resulting in some variable changes.
- The 2014 revision of the Report of Fetal Death (form R304-102014) contains a number of changes. Most changes are in order to make Massachusetts compliant with the federally, and state-mandated, required minimum data set for fetal deaths. The national standard, developed by the National Center for Health Statistics (NCHS), closely resembles the birth certificate and

death certificate, containing the relevant items of the two. Although the Department recognizes that in some cases, the availability of certain data may be less accessible than for birth certificate reporting, in general those items appearing on the legal portion of the birth certificate and on the death certificate are to be considered required. All other items are required as available from hospital and prenatal sources.

- Note that the ID matched to CHIA corresponds to the mother and not the stillbirth.
- If a stillbirth is delivered, extracted, or expulsed, before 20 weeks gestation AND weighs less than 350 grams, it is a non-reportable fetal death. No Report of Fetal Death should be completed. In cases where a private disposition is arranged, it will be necessary for the hospital to provide a hospital letter of notification for the funeral director or the family to obtain a permit rather than a Report of Fetal Death. The Standard Certificate of Death and the Standard Certificate of Live Birth should also NEVER be used with a fetal death of any gestation.

PHD Matching Rate: Level 1 Matching Rate: 91.9% | Overall Matching Rate: 98.1%

Years Currently Covered: 2011-2022

More information: https://www.mass.gov/doc/hospital-manual-for-report-of-fetal-death/download

Hepatitis A Virus Surveillance

PHDHEPA.HAV

Brief Description: Tests indicating the presence of the hepatitis A virus, or antibodies produced in response to this virus, have been reportable in Massachusetts since 1985. These data are housed in the Massachusetts Virtual Epidemiologic Network (MAVEN), a person-based, fully integrated, Web-based disease surveillance and case management system. Information on residence, demographics, clinical picture, vaccine history, and risk history are collected by the state and/or local health departments from the laboratory, healthcare, or service provider(s), and/or the case themselves.

Data Owner: Bureau of Infectious Disease and Laboratory Sciences, Integrated Surveillance, and Informatics Services

Population: Massachusetts residents with confirmed hepatitis A virus infection, reported to the surveillance system between 2011 and 2021.

Important Data Notes:

- Data are current as of January 2023 and are subject to change
- Cases are classified according to the appropriate national classification guidelines for that timeframe. For more information on cases classification please see (https://wwwn.cdc.gov/nndss/conditions/hepatitis-a-acute/)
- Interpretation of hepatitis A risk data must incorporate any limitations on timeframe or scope as described in the individual data elements.
- The residence of a case reflects where the individual was living when reported, not necessarily where the individual acquired their infection.

PHD Matching Rate: Level 1 Matching Rate: 95.7% | Overall Matching Rate: 98.1%

Years Currently Covered: 2011-2021

More information: https://www.mass.gov/hepatitis-a

https://www.mass.gov/infectious-disease-surveillance-reporting-and-control

Hepatitis C Virus Surveillance

PHDHEPC.HCV

Brief Description: Tests indicating the presence of the hepatitis C virus, or antibodies produced in response to this virus, have been reportable in Massachusetts since 1992. These data are housed in the Massachusetts Virtual Epidemiologic Network (MAVEN), a person-based, fully integrated, Web-based disease surveillance and case management system. Subsequent records supplement the report over time for persons testing positive. Information on residence, demographics, clinical picture, and risk history are collected by the state and/or local health departments from the laboratory, healthcare, or service provider(s), and/or the case themselves.

Data Owner: Bureau of Infectious Disease and Laboratory Sciences, Integrated Surveillance, and Informatics Services

Population: Massachusetts residents with evidence of hepatitis C virus infection, first reported to the surveillance system between 2011 and 2021.

Important Data Notes:

- Data are current as of January 2023 and are subject to change
- Cases are classified according to the appropriate national classification guidelines for that timeframe. For more information on cases classification please see (https://wwwn.cdc.gov/nndss/conditions/hepatitis-c-chronic/case-definition/2016/)
- Due to significant changes in case classification in 2016, cases reported after 1/1/2016 with a
 positive antibody test but a negative RNA test would be classified as revoked in the absence of a
 positive RNA test in the first year of reporting and are not included in this dataset. Prior to 2016,
 these cases may have been classified as confirmed or probable. An estimation of how these
 changes impacted case definitions can be found in the 2016 Hepatitis C surveillance report on
 the Mass.gov website.
- Cases in the surveillance system likely underestimate all HCV infected individuals as they represent only people who were tested for hepatitis C and successfully reported.
- The residence of a case reflects where the individual was living when initially reported, not necessarily where the individual acquired their infection.
- The Massachusetts Surveillance System is person-based, and for a chronic infectious disease such as hepatitis C, maintains longitudinal records on cases. Therefore, if a person tested positive for hepatitis C in this timeframe but had an earlier record of a positive test reported to the surveillance system, they will not be included in this dataset.
- Hepatitis C has a life-long event time frame so individuals should only have a single HCV event reported. However, a small number of individuals may have more than one event in the system if more than one report was made on them.

PHD Matching Rate: Level 1 Matching Rate: 86.6% | Overall Matching Rate: 95.2%

Years Currently Covered: 2011-2021

More information: www.mass.gov/hepc

https://www.mass.gov/infectious-disease-surveillance-reporting-and-control\

House of Corrections

PHDHOC.HOC

Brief Description: It is the mission of the Massachusetts Sheriffs' Association to promote, advocate and support the office of sheriff in all fourteen counties of the Commonwealth, to effectuate their cooperative working relationship with one another, to enhance their work as the chief law enforcement officers of the counties, and to advance efforts to unify their efforts in policy development, operations and training while preserving the autonomy of each office. The Houses of Correction operate on a county level. They are required to track releases to the public through the Executive Office of Public Safety and Security. Individual releases are the basis for the data included in Chapter 55. The information includes basic identifiers as well as specific release dates.

Important Data Notes:

-Data currently only includes ten Houses of Correction

- Essex 2011 until July 2017: every change of inmate adjudication status had new record, but after July 2017, each incarceration only has one record, and their adjudication status is what they were designated as on release

Berkshire HOC

Data owner: Berkshire House of Corrections

Population: Individuals who were released from Berkshire county jail from 2011-2022

PHD Matching Rate: Level 1 Matching Rate: 93.7% | Overall Matching Rate: 98.0%

Years Currently Covered: 2011-2022

More information: https://www.mass.gov/orgs/massachusetts-sheriffs-association

Essex HOC

Data owner: Essex House of Corrections

Population: Individuals who were released from Essex county jail from 2011-2023

PHD Matching Rate: Level 1 Matching Rate: 92.7% | Overall Matching Rate: 96.2%

Years Currently Covered: 2011-2023

More information: https://www.mass.gov/orgs/massachusetts-sheriffs-association

Franklin HOC

Data owner: Franklin House of Corrections

Population: Individuals who were released from Franklin county jail from 2011-2022

PHD Matching Rate: Level 1 Matching Rate: 73.5% | Overall Matching Rate: 85.5%

Years Currently Covered: 2011-2022

More information: https://www.mass.gov/orgs/massachusetts-sheriffs-association

Hampden HOC

Data owner: Hampden House of Corrections

Population: Individuals who were released from Hampden county jail from 2011-2021

PHD Matching Rate: Level 1 Matching Rate: 92.1% | Overall Matching Rate: 96.5%

Years Currently Covered: 2011-2022

More information: https://www.mass.gov/orgs/massachusetts-sheriffs-association

Hampshire HOC

Data owner: Hampshire House of Corrections

Population: Individuals who were released from Hampshire county jail from 2011-2023

PHD Matching Rate: Level 1 Matching Rate: 90.9% | Overall Matching Rate: 96.8%

Years Currently Covered: 2011-2023

More information: https://www.mass.gov/orgs/massachusetts-sheriffs-association

Middlesex HOC

Data owner: Middlesex House of Corrections

Population: Individuals who were released from Middlesex county jail from 2011-2023

PHD Matching Rate: Level 1 Matching Rate: 91.7% | Overall Matching Rate: 96.3%

Years Currently Covered: 2011-2023

More information: https://www.mass.gov/orgs/massachusetts-sheriffs-association

Norfolk HOC

Data owner: Norfolk House of Corrections

Population: Individuals who were released from Norfolk county jail from 2011-2023

PHD Matching Rate: Level 1 Matching Rate: 91.3% | Overall Matching Rate: 96.4%

Years Currently Covered: 2011-2023

More information: https://www.mass.gov/orgs/massachusetts-sheriffs-association

Plymouth HOC

Data owner: Plymouth House of Corrections

Population: Individuals who were released from Plymouth county jail from 2011-2023

PHD Matching Rate: Level 1 Matching Rate: 92.9% | Overall Matching Rate: 97.2%

Years Currently Covered: 2011-2023

More information: https://www.mass.gov/orgs/massachusetts-sheriffs-association

Suffolk HOC

Data owner: Suffolk House of Corrections

Population: Individuals who were released from Suffolk county jail from 2011 – 2021

PHD Matching Rate: Level 1 Matching Rate: 77.1% | Overall Matching Rate: 88.1%

Years Currently Covered: 2011 – 2021

More information: https://www.mass.gov/orgs/massachusetts-sheriffs-association

Worcester HOC

Data owner: Worcester House of Corrections

Population: Individuals who were released from Worcester county jail from 2011-2023

PHD Matching Rate: Level 1 Matching Rate: 91.6% | Overall Matching Rate: 96.8%

Years Currently Covered: 2011 – 2023

More information: https://www.mass.gov/orgs/massachusetts-sheriffs-association

Human Immunodeficiency Syndrome (HIV) Data

PHDHIV.HIV_INC

Brief Description: Tests indicating the presence of the human immunodeficiency syndrome (HIV) virus, or antibodies produced in response to this virus, have been reportable in Massachusetts since 1985. These data are housed in the Massachusetts Virtual Epidemiologic Network (MAVEN), a person-based, fully integrated, Web-based disease surveillance and case management system. Information on

residence, demographics, clinical picture, vaccine history, and risk history are collected by the state and/or local health departments from the laboratory, healthcare, or service provider(s), and/or the case themselves.

Data Owner: Bureau of Infectious Disease and Laboratory Sciences, Integrated Surveillance, and Informatics Services

Population: Massachusetts residents with confirmed HIV virus infection, reported to the surveillance system between 2013 and 2022.

Important Data Notes:

Data are **new** cases in Massachusetts from 2013-2022 data is current as of 12/31/2022 and are subject to change when new data is added.

Cases are classified according to the appropriate national classification guidelines for that timeframe. For more information on cases classification please see https://www.cdc.gov/hiv/default.html

https://www.cdc.gov/hiv/ of HIV must incorporate any limitations on timeframe or scope as described in the individual data elements.

The residence of a case reflects where the individual was living when reported, not necessarily where the individual acquired their infection.

PHD Matching Rate: Level 1 Matching Rate 90.3%: | Overall Matching Rate: 96.7%

Years Currently Covered: 2013-2022

More information: https://www.mass.gov/hiv00

https://www.mass.gov/infectious-disease-surveillance-reporting-and-control

PHDHIV.HIV_PREV

Brief Description: Persons who test positive for HIV and are living in Massachusetts are included in this dataset. Tests indicating the presence of the human immunodeficiency syndrome (HIV) virus, or antibodies produced in response to this virus, have been reportable in Massachusetts since 1985. These data are housed in the Massachusetts Virtual Epidemiologic Network (MAVEN), a person-based, fully integrated, Web-based disease surveillance and case management system. Information on residence, demographics, clinical picture, vaccine history, and history are collected by the state and/or local health departments from the laboratory, healthcare, or service provider(s), and/or the case themselves.

PHDHIV.PREV_CD4

The PREV_CD4 dataset contains CD4 test dates, tiered CD4 results, and whether the individual was viral suppressed in the years 2013-2022.

Data Owner: Bureau of Infectious Disease and Laboratory Sciences, Integrated Surveillance, and Informatics Services

Population: Massachusetts residents with confirmed HIV virus infection, reported to the surveillance system between 2013 and 2022.

Important Data Notes:

- Data includes residents of Massachusetts who have tested positive for HIV or AIDS, data is current as 12/31/2022.

Cases are classified according to the appropriate national classification guidelines for that timeframe. For more information on cases classification please see https://www.cdc.gov/hiv/statistics/surveillance/terms.html

- https://www.cdc.gov/hiv/ of HIV must incorporate any limitations on timeframe or scope as described in the individual data elements.
- The residence of a case reflects where the individual was living when reported, not necessarily where the individual acquired their infection.

PHD Matching Rate: HIV_PREV Level 1 Matching Rate: 81.3% | Overall Matching Rate: 92.2%

HIV PREV CD4 Level 1 Matching Rate: 90.0% | Overall Matching Rate 97.2%

Years Currently Covered: 2013-2022

More information: https://www.mass.gov/hiv

https://www.mass.gov3/infectious-disease-surveillance-reporting-and-control

MA Ambulance Trip Record Information System (MATRIS)

PHDEMS.MATRIS

Brief Description: Under EMS System regulations, ambulance services are required to document each EMS call and include the data elements pertaining to the call specifically referenced in an administrative requirement issued by OEMS governing the statewide EMS minimum data set. MATRIS data elements are based on the National Emergency Medical Service Information System (NEMSIS).

Data Owner: Office of Emergency Medical Services (OEMS)

Population: All ambulance encounters considered an emergency and where patient contact occurred

Important Data Notes:

- Whether a specific ambulance trip involves an opioid overdose is not a simple judgment, as the NEMSIS standard does not specifically identify incidents as being opioid-related. The classification of opioid trips was based on an algorithm developed in conjunction with the Centers for Disease Control and Prevention
- Data are not uniformly reported by EMS providers
- Beginning in 2017 and continuing through 2021, NEMSIS (data system behind MATRIS) transitioned from Version 2 to Version 3. Some variables have changed formats. All data has been modified to make analysis possible across versions. The largest change is that Version 3 utilizes ICD 10 codes for EMS provider impressions, whereas Version 2 uses free text.
- MATRIS data starts in 2013
- Unmatched EMS runs are more likely to be from Hampden, Nantucket, or Bristol County before 2020. This is related to some EMS services having less complete reporting of the patient identifiers needed for matching to the PHD spine (and those services having higher concentrations in the 3 counties above). After 2020, there is not a difference in unmatched runs by county. Additionally, unmatched EMS runs are more likely to occur in earlier years of data rather than later years; as more services transferred to V3 there is a noticeable improvement in data quality.
- MATRIS data (PHDEMS.MATRIS) does contain ICD-10 codes in the following fields:
 Primary_Impression, Second_Impression1- Second_Impression11. However, there are two important limitations to using these fields:
 - Not all service providers used the NEMSIS system that provides ICD-10 codes between 2017-2022. The earliest providers to transition began in 2017, and all MA providers were required to transition no later than May 2022. Until January 2022, there were providers using the earlier NEMSIS system that does not have ICD codes available.
 - EMS personnel do not use ICD-10 codes in the same way they are used in other data sources. There is overall less accuracy in the ICD-10 codes used as EMS are quickly assessing and transporting an individual in an emergency setting. They do not need the

- same level of specificity to stabilize an individual for transport as is required to treat an individual, and the codes reflect this difference.
- For patients transported to a hospital, Case Mix data will provide a better source of diagnosis codes.

•

PHD Matching Rate: Level 1 Matching Rate: 82.2% | Overall Matching Rate: 91.5%

Years Currently Covered: 2013-2023

More information: https://www.mass.gov/info-details/massachusetts-ambulance-trip-record-

information-system-matris

MA Cancer Registry (MCR)

PHDMCR.MCR

Brief Description: The MCR is a population-based registry that tracks the incidence of cancer within the Commonwealth.

Data Owner: Massachusetts Cancer Registry (MCR)

Population: All incident cancer diagnoses to MA residents

Important Data Notes:

- The stage of a cancer is not an exact science. It is based on various factors relative to primary site, histology, grade, in addition to the extent of an individual's own disease.
- Staging guidelines may differ in the clinical setting.

PHD Matching Rate: Level 1 Matching Rate: 91.0% | Overall Matching Rate: 95.9%

Years Currently Covered: 2011-2020

More information: https://www.mass.gov/massachusetts-cancer-registry

Prescription Monitoring Program (PMP)

PHDPMP.PMP

Brief Description: Information about filled prescriptions for schedule II through V medications is reported electronically each business day by all Massachusetts community, hospital outpatient and clinic pharmacies as well as from out-of-state mail order pharmacies that deliver to patients in Massachusetts. Schedules II through V medications consist of those prescription drug products with recognized potential for abuse or dependence (e.g., narcotics, stimulants, sedatives).

Data Owner: Office of Prescription Monitoring and Drug Control

Population: All schedule II-V prescriptions filled by MA residents

Important Data Notes:

- Methadone clinics do not report to the Massachusetts PMP as they are exempt by statutory language. Methadone prescriptions found in PMP are for pain (not addiction treatment)
- A filled prescription should not be interpreted to mean that an individual took all or even any of that medication
- Prescriptions filled via the VA system were not reported prior to 1/1/2014
- Tramadol was added to the PMP on 8/18/2014
- Gabapentin was added to the PMP on 8/1/2017; Gabapentin records are available in PHD data starting 1/1/2018
- Prescriptions through the State Office of Pharmacy Services (SOPS, operates the pharmacies in MA jails and prisons, the Soldiers' Home, and public health hospitals) are only recorded in the PMP if they are given as a discharge medication. Medications administered by SOPS while individuals are still in-patient are not recorded in the PMP.
- Specialty and role information for prescribing providers will be made available via a separate lookup table (PHDPMP.PMP_RS). Users will be able to reference this table using the provider's DEA number. Please note: 1) the lookup table excludes hospital/facility DEA numbers; specialty and roll information for prescribers who do not possess (such as medical residents) or otherwise do not use their own DEA number will not be available and 2) role and specialty information reflects the latest information entered into MassPAT by the provider and may not reflect the role/specialty at the time of an earlier prescription.
- Matched records had a mean age that is about 5 years younger than unmatched records

PHD Matching Rate: Level 1 Matching Rate: 92.6% | Overall Matching Rate: 98.4%

Years Currently Covered: 2011-2023

More information: https://www.mass.gov/orgs/prescription-monitoring-program

Office of the Chief Medical Examiner (OCME)

PHDDEATH.DEATH

Brief Description: Included in the death files are several variables that come directly from the OCME's intake form and are not part of the official death certificate. Included is a brief narrative that describes the setting and environment of an unattended death. It is often written by the State Police in the case of acute opioid-related overdoses. These narratives are analyzed by searching for the presence of key words. These key words are included in the death file.

Data Owner: Office of the Chief Medical Examiner (OCME)

Population: Deaths to MA residents that are referred to the OCME

Important Data Notes:

- Massachusetts General Laws Chapter 38, Section 3, lists the deaths that must be reported to the OCME. Based on the circumstances of the death, the OCME will either accept or decline jurisdiction.
- The OCME's mission is to determine cause and manner of death for deaths that occur in Massachusetts under violent, suspicious, or unexplained circumstances, and to release work products such as certifications of death and autopsy reports in a timely fashion.
- Since January 1, 2018, OCME leadership has focused attention on the active management of the
 turnaround time of cases. The majority of decedents are examined within 24 hours of their
 arrival at the OCME. Many are examined the same day. The time between arrival at the OCME
 and examination rarely exceeds 48 hours. The death is certified when the examination has been
 completed, with most decedents being ready for release the same day.
- Delays in release can occur when the decedent has to be identified at the OCME. Identifications at the OCME are necessary when decedents are decomposed, have sustained facial trauma, or are victims of homicide. The turnaround time for the completion of the identification can be as quick as a day when the decedent is visually identifiable or when dental records are available but may take months when DNA analysis is the only option. Delays can also occur for unclaimed or unidentified decedents who are awaiting burial through the Department of Transitional Assistance (DTA), in accordance with M.G.L. c. 38, § 13.

Years Currently Covered: 2011-2022

PHD Matching Rate: See death file matching rates

More information: https://www.mass.gov/orgs/office-of-the-chief-medical-examiner

PHDTOX.TOX (Toxicology)

Brief Description: The toxicology reports describe the presence of hundreds of specific chemical compounds that might be found in the body of a decedent.

Data Owner: Office of the Chief Medical Examiner (OCME)

Population: Deaths to MA residents that are referred to the OCME

Important Data Notes:

- Results only indicate the presence or absence of a substance; presence does not necessarily mean that the substance contributed to the death.
- Toxicology reports are not available until 2014.

PHD Matching Rate: See death file matching rates

Years Currently Covered: 2014-2022

More information: https://www.mass.gov/orgs/office-of-the-chief-medical-examiner

PHD Spine Datasets

PHDSPINE.DEMO

Brief description

This dataset searches all PHD datasets to create the best possible demographic variables for each ID. Variables include information on race, ethnicity, sex, year of birth, housing status, disability status, preferred language, education level, and other additional details.

Dataset created by the Data Science, Research, and Epidemiology team.

Years Currently Covered: N/A

Data notes.

- 1. This dataset is updated every time new data is added to the PHD
- 2. Each ID is represented once in the dataset
- 3. There may be conflicting information between an individual dataset and the PHDSPINE.DEMO information; this is because the PHDSPINE.DEMO dataset coalesces all available information for an ID.

PHDSPINE.OVERDOSE

Brief description

This dataset searches Case Mix (ED, ED_DIAG, HD, HD_DIAG and OO datasets), MATRIS Ambulance trip reports and Death records to identify fatal and non-fatal opioid-related overdose.

Dataset created by the Data Science, Research, and Epidemiology team.

Years Currently Covered: 2013-2022

Data notes.

- 4. This dataset is updated when all three component datasets add a new year.
- 5. Records the same day in Case Mix, and one day apart between Case Mix, MATRIS are flagged as the same event.
- 6. Deaths occurring 0-3 days after a non-fatal overdose are considered the same event and are captured on the same line.

PHDSPINE.MOUD

Brief description

This dataset searches APCD, BSAS, DOC, & PMP to create one combined dataset of all sources of MOUD in the PHD. The medications covered are Buprenorphine, Methadone, and Naltrexone.

Dataset created by the Data Science, Research, and Epidemiology team.

Years Currently Covered: 2011-2022

Data notes:

- 1. This dataset is updated when all component datasets add a new year.
- 2. The segments have a start and end date, as well as the MOUD type that the individual was taking. Within an MOUD type, the segments are non-overlapping in an individual; this means if there is a gap between segments of the same MOUD type within an individual, they may have been experiencing a gap in MOUD use. They may also have been receiving MOUD from a source we do not capture in the PHD.

Important Considerations:

- 1. All Naltrexone found in the PHD has been included in this dataset. Naltrexone can be used in the treatment of Alcohol Use Disorder (as well as being an MOUD). To correctly determine if the Naltrexone in this dataset is being used as a MOUD, you MUST establish OUD in an individual prior to the Naltrexone.
- Some of the periods identified as methadone may not actually be methadone. Methadone data
 in BSAS is determined by a process of elimination as BSAS programs can dispense any of the
 forms of MOUD. BSAS program records are crossed against sources of Buprenorphine and
 Naltrexone in the PHD; if no record can be found in either Buprenorphine or Naltrexone sources,
 then the MOUD being administered is Likely Methadone.
- 3. These records are incomplete for inpatient and residential settings (including hospital stays, incarceration periods, and institutional settings).
- 4. Please note that the segments in this dataset reflect optimal medication adherence.
 - a. A record in this dataset means that a prescription has been filled but cannot determine if it was ingested or taken as prescribed.
 - b. The prescription data in this dataset has start and end dates that credit remaining supply from an earlier fill. This means if an individual refills a prescription while still having pills left from an earlier fill, the start date of that refill is shifted forward to reflect an individual not starting the new supply until all pills in the original supply are used.

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)

PHDWIC.WIC_KID

Brief Description: The USDA federal WIC nutrition program provides healthy foods, nutrition education, breastfeeding support, and referrals to healthcare and other services for eligible low-income pregnant women and mothers up to the first year postpartum, infants and children up to age five. The PHD includes information on participants of the MA WIC program, including breastfeeding status, nutrition-related anthropometrics, health behaviors, prenatal care, and demographics.

Data Owner: WIC Program, Nutrition Division, BFHN

Population: Important Data Notes:

• MA resident infants and children up to age five, who meet income eligibility requirements. Foster children up to age five are also eligible.

- WIC adjunctive eligibility available for infants and children who currently receive SNAP,
 Transitional Aid to Families with Dependent Children (TAFDC) or cash assistance, and specific
 MassHealth insurance plans. Use FOOD_STAMPS_KID and FOOD_STAMPS_MOM to identify
 these individuals.
- More than 80% of WIC households are not reporting any indication of food insecurity.
- WIC enrollment is not an appropriate proxy for food insecurity. Given that 42% of all infants born in MA participate in the WIC Program during the first year of life, using WIC enrollment for a proxy would greatly overestimate food insecurity among young families.
- Date of birth is verified with birth certificate/hospital discharge form and Mass Health EVS portal. Race is self-reported.
- Each child has a WIC_KID_ID that may be linked to their mother's WIC_MOM_ID if the mom is on WIC. The system was implemented in 2011, Matching Rates between mother and child by year:

YEAR	% Unique KIDS linked to MOM
2011	74.6
2012	82.4
2013	83.4
2014	82.6
2015	82.6
2016	83.0
2017	82.2
2018	82.7
2019	82.3
2020	83.8%
2021	87.9%
2022	77.8%
2023	83.8%

PHD Matching Rate: Level 1 Matching Rate: 91.2% | Overall Matching Rate: 97.3%

Years Currently Covered: 2011-2023

More information: https://www.mass.gov/service-details/check-eligibility-for-wic

PHDWIC.WIC MOM

Brief Description: The USDA federal WIC nutrition program provides healthy foods, nutrition education, breastfeeding support, and referrals to healthcare and other services for eligible low-income pregnant women and mothers up to the first year postpartum, infants and children up to age five. The PHD includes information on participants of the MA WIC program, including breastfeeding status, nutrition-related anthropometrics, health behaviors, prenatal care, and demographics.

Data Owner: WIC Program, Nutrition Division, BFHN

Population: Important Data Notes:

- MA resident pregnant women and mothers up to the first year postpartum who meet income eligibility requirements.
- WIC adjunctive eligibility available for pregnant and postpartum women who currently receive SNAP, Transitional Aid to Families with Dependent Children (TAFDC) or cash assistance, and specific MassHealth insurance plans.
- Linkage variables between KIDS and MOMs on WIC were established in 2010 and are summarized above in WIC_KID.
- All data is asked and filled in by the staff (like the doctor's office). Birth date is verified, and race is self-reported.
- Certification period and end dates should be used to estimate service time. When women
 change from breastfeeding to non-breastfeeding, they receive a pseudo- certification and status
 of housing is checked. If a woman is certified for over a year it may be because she was on the
 program during a pregnancy and during the post-partum period.

PHD Matching Rate: Level 1 Matching Rate: 94.3% | Overall Matching Rate: 97.7%

Years Currently Covered: 2011-2023

More information: https://www.mass.gov/service-details/check-eligibility-for-wic

Community-Level Datasets

PHD Drug Seizure Dataset

Brief Description: The PHD Drug Seizure dataset is comprised of Massachusetts drug seizure data from The New England High Intensity Drug Trafficking Area (NEHIDTA). NEHIDTA is one of 32 HIDTAs under the Office of National Drug Control Policy (ONDCP) and is comprised of the six New England states, including Connecticut, New Hampshire, Maine, Massachusetts, Rhode Island, and Vermont. The Drug

Seizure dataset encompasses variables that measure drug type, drug quantity, unit of measure, date of seizure, and the county where the seizure occurred.

Overdose Education and Naloxone Distribution Program (OEND)

Brief Description: The Overdose Education and Naloxone Distribution (OEND) program is the primary overdose prevention effort funded by the Department of Public Health (DPH). OEND is a targeted intervention program designed for the people who are the highest risk of experiencing or witnessing an opioid overdose. The OEND programs operate out of state-funded Syringe Services Programs (SSPs) and other community-based organizations. A local pilot helped lay the foundation for DPH to establish OEND pilot programs in 2007. Today, the Department funds 20 OEND programs with over \$9 million, serving a network of communities throughout Massachusetts.

OEND programs operate out of fixed sites, mobile sites, street outreach, and other venues such as dropin centers, shelters, and substance use disorder treatment programs. In addition to training and naloxone access, OEND programs offer access and referrals to infectious disease prevention education, risk and harm reduction counseling and education, screening for HIV/HCV/STIs, referrals to substance use disorder treatment, referrals to primary care services, and infectious disease case management.

Data owner: Bureau of Substance Addiction Services (BSAS)

Population: Important Data Notes:

\

- When a bystander is trained and provided a naloxone kit, the individual is enrolled in the program and an enrollment questionnaire is completed by OEND staff.
- When that person returns to the OEND program to receive a refill and/or report a rescue, a refill questionnaire is completed.
- All participants have a unique identifier that ensures that there is no duplication and allow the linking of enrollment and refill forms at the individual level but preserving participant anonymity.Narcan Encounter Level Dataset: Not every variable will be filled in for every encounter:
 - a) Information about rescues are only filled in for rescue reports
 - Demographic information (including user status and residence zip-code) will be missing for refill forms or rescue forms where a corresponding enrollment form for the same person could not be found
 - c) If doses distributed is greater than 10, this is considered secondary distribution, and the variables RACE, LATINO, and GENDER are all set to missing. (We assume they will not use the narcan themselves, but will pass it along to others)

UMASS Donahue - Small Area Population Estimates

Brief Description: The Environmental Public Health Tracking (EPHT) Program contracted with the UMASS Donahue Institute (UMDI) to develop a set of small-area population estimates for the years 2011 through 2020. These estimates were created by a highly knowledgeable team of expert demographers

using novel modifications of an existing and well-accepted methodology. UMDI created estimates by sex, age, race, and ethnicity at the census tract and community levels. These estimates are controlled to the annual county level Census estimates1 on a yearly basis, so they become more accurate over time. To read the full methodology, please refer to the report created by UMDI. Resident Population by Sex, Race, and Hispanic Origin Population Estimates, and each age/sex/race cohort is also broken down by Hispanic or Non-Hispanic origin.3 Finally, UMDI has produced error ranges by age and cohort size, which are incorporated into the estimates as low-to-high values for each cohort estimate, making each a range-of-values rather than a single-value estimate.

Data Owner: The Environmental Public Health Tracking (EPHT)

Population: Important Data Notes:

- Estimates for single year age groups and 5-year age groups are created separately. It is best to avoid combining single year and 5-year estimates.
- Due to the methodology for estimating error for small areas, census tracts should not be aggregated to create larger geographies. However, communities may be aggregated to create larger geographies, such as counties, EOHHS regions, etc.
- The sum of individual race/ethnicity/age breakdowns will not be equal to the "All races/all ethnicities" or the "total" (if selected) category for a given geography for 2010-2020. This is due to manner in which the race/ethnicity breakdown estimates are created and is described in detail in the UMASS Donahue Institute methodology. "Unknown" race is included in the total, but not in the sub-groups, which is the primary cause of the discrepancy between the total race and the individual races summed. Furthermore, rounding contributes to some of the discrepancy. Rounding is what causes differences between Hispanic + Non-Hispanic and "All Ethnicities" for the same race group.
- The UMDI projections are "controlled" annually with the latest vintage of the Annual County Census Estimates (Annual Estimates of the Resident Population by Sex, Race, and Hispanic Origin Population Estimates for Massachusetts Counties): Census Vintage Files.

More information: S:\Population Estimates for MA 2010-present.

The Public Health Disparities Geocoding Project

Brief Description: Datasets downloaded from The Public Health Disparities Geocoding Project https://www.hsph.harvard.edu/thegeocodingproject/.

Area-based socioeconomic measures with public health surveillance data, based on the work of the Public Health Disparities Geocoding Project at the Harvard T. H Chan School of Public Health, Department of Social and Behavioral Sciences.

The Public Health Disparities Geocoding Project was launched to ascertain which ABSMs, at which geographic level (census block group [BG], census tract [CT], or ZIP Code [ZC]), would be suitable for

monitoring US socioeconomic inequalities in the health. Drawing on 1990 census data and public health surveillance systems of 2 New England states, Massachusetts, and Rhode Island, they analyzed data for: (a) 7 types of outcomes: mortality (all cause and cause-specific), cancer incidence (all-sites and site-specific), low birth weight, childhood lead poisoning, sexually transmitted infections, tuberculosis, and non-fatal weapons-related injuries, and (b) 18 different ABSMs. They conducted these analyses for both the total population and diverse racial/ethnic-gender groups, at all 3 geographic levels.

Population: Important Data Notes:

- Based on U.S. Census Bureau, 2014-2018 American Community Survey 5-Year Estimates.
- The Index of Concentration at the Extremes [12] measure captures the extent to which the population in a given area is concentrated at either extreme of a social metric and ranges from 1 (everyone in the worst category) to 1 (everyone in the best category). For our analyses, we set the extremes for this ICE as: (a) high-income White Non-Hispanic population, versus (b) low-income population of color (i.e., not white non-Hispanic) [12]. For analysis purposes, we defined categories of ABSMs using *a priori* cut-points for % below poverty (0-4.9%, 5-9.9%, 10-14.9%, 15-19.9%, and 20-100%) and quintile cut-points based on the distribution of ZCTA or city/town attributes in Massachusetts (weighted by population size).
- Limitations of the data: Since the data from a community or a zip code is applied to all residents of that community or zip code, it can help in understanding the context in which an individual lives but not whether that data applies to any specific individual in the data set.

•

2014-2018 American Community Survey 5-Year Estimates

Brief Description: The American Community Survey (ACS) is an ongoing survey that provides vital information on a yearly basis about our nation and its people. Information from the survey generates data that help determine how more than \$675 billion in federal and state funds are distributed each year.

Through the ACS, we know more about jobs and occupations, educational attainment, veterans, whether people own or rent their homes, and other topics. Public officials, planners, and entrepreneurs use this information to assess the past and plan the future. When you respond to the ACS, you are doing your part to help your community plan for hospitals and schools, support school lunch programs, improve emergency services, build bridges, and inform businesses looking to add jobs and expand to new markets, and more.

Population: Important Data Notes:

- Conducted every month, every year
- Sent to a sample of addresses (about 3.5 million) in the 50 states, District of Columbia, and Puerto Rico
- Asks about topics not on the 2020 Census, such as education, employment, internet access, and transportation

- Provides current information to communities every year. It also provides local and national leaders with the information they need for programs, economic development, emergency management, and understanding local issues and conditions.
- **Limitations of the data:** Since the data from a community is applied to all residents of that community it can help in understanding the context in which an individual lives but not whether that data applies to any specific individual in the data set.

Carceral Resource Index

Brief Description: The Carceral Resource Index (CRI) is a novel composite measure comparing municipal expenditures on health and social support services versus carceral systems. The CRI offers values ranging from -1 to 1. A CRI coefficient of -1 represents a jurisdiction's fiscal prioritization of carceral systems to the exclusion of health and support, while 1 represents fiscal prioritization of health and support systems to the exclusion of carceral expenditures. Actual composition of budget outlays in each CRI category will vary by local government design. Expenditures that do not fall squarely into these three categories are excluded.

Important Data Notes:

- Includes 57 Massachusetts cities
- For more information visit https://www.healthinjustice.org/carceral-resource-index