

Data Sources

Health of Massachusetts uses the most current data available at the time of release on the health of the population of Massachusetts. Information was obtained from data files and published reports administered or compiled by the Massachusetts Department of Public Health, the federal government, other state agencies and private organizations.

In each case, the sponsoring agency or organization collected data using its own methods and procedures. Therefore, data in this report may vary considerably with respect to source, method of collection, definitions, and reference period. If you have questions about any of these items, a hyperlink to more information is included for most data sources.

The following data sources are organized by these three categories:

- Massachusetts Department of Public Health
- Federal Governmental Agencies
- Other Massachusetts State Agencies

How to Get More Data

MassCHIP, Public Health Information Online

MassCHIP – the Massachusetts Community Health Information Profile – is a dynamic, user-friendly information service that provides free, online access data. MassCHIP, allows users to ‘run their own’ data reports or get access to hundreds of already generated reports. Users of MassCHIP have access to 36 major data sets, including many of the data sources listed in this section.

www.mass.gov/dph/masschip

Publications from the Massachusetts Department of Public Health

The Department of Public Health annually publishes dozens of data reports, presentations fact sheets and bulletins with in-depth information on selected topics. For example, every year separate reports devoted to birth, death, cancer, occupational health, substance abuse and the Behavioral Risk Factor Surveillance System are released and available on our website. In addition to these annual reports, the Department publishes current information as it becomes available, such as H1N1 flu

information, and new one-time reports on special topics, such as the Report on Native American Health in Massachusetts.

www.mass.gov/dph/publications

Research and Requests for Confidential Data

Selected datasets administered by the Massachusetts Department of Public Health are available for use by researchers. Certain restrictions apply which are set by state law and regulation.

www.mass.gov/dph/research

Massachusetts Department of Public Health

The following data sources are held by the MDPH and are listed in alphabetical order. The word “Massachusetts” has been omitted from the beginning of the names of many of these sources.

Asthma Call-back Survey

The Asthma Call-back Survey is a standardized questionnaire developed by the Centers for Disease Control and Prevention, administered by telephone. The survey examines the health, socioeconomic, behavioral and environmental predictors that relate to better control of asthma. It also characterizes the type of care and health care experiences of people with asthma. The data are collected every year in Massachusetts, beginning in 2006.

Respondents to the Behavioral Risk Factor Surveillance System (see also BRFSS in this section) who reported that they or the selected child in the household have ever been diagnosed with asthma were asked at the end of the BRFSS interview if they would be willing to participate in a follow-up interview on asthma. Respondents who agreed to participate were called back within 2 weeks and administered the call-back survey. Adult proxies for the selected child include parents, legal guardians, grandparents, adult siblings, other relatives or non-related adults living in the selected child’s household.

<http://www.cdc.gov/asthma/survey/brfss.html#callback>.

Behavioral Risk Factor Surveillance System (BRFSS)

The Behavioral Risk Factor Surveillance System (BRFSS) is a

continuous, random digit dial, landline-only telephone survey of adults ages 18 and older and is conducted in all states as collaboration between the federal Centers for Disease Control and Prevention (CDC) and state departments of health. The survey has been conducted in Massachusetts since 1986. The BRFSS collects data on a variety of health risk factors, preventive behaviors, chronic conditions, and emerging public health issues.

Each year the BRFSS survey includes core questions designed by the CDC and administered by all states; optional modules designed by the CDC to be added at each state's discretion; and question sets designed in collaboration with other programs of MDPH.

Birth Defects Monitoring Program

Massachusetts state law requires reporting certain information related to birth defects that occur to Massachusetts residents. The file includes information on births, infant deaths, fetal deaths, and birth defects.

The primary focus of the Massachusetts surveillance system is identifying major structural birth defects. Selected genetic and chromosomal abnormalities are also included. Inborn errors of metabolism are not included but are monitored by the state newborn screening program. The surveillance reports are distributed to the public and are available online.

<http://www.mass.gov/dph/birthdefects>

Birth File

See Vital Records.

Cancer Registry

Massachusetts state laws require reporting to MDPH information related to newly diagnosed cases of malignant disease and benign brain-related tumors that occur to Massachusetts residents. The Massachusetts Cancer Registry currently collects data from acute care hospitals, selected physicians, and a limited number of pathology laboratories and freestanding treatment centers. Carcinoma in situ has been collected since January 1, 1992; benign brain tumors since January 1, 2004. The file includes demographic and medical

information; the variable list is included in the cancer incidence application appendix.

- Years available: 1982-2004

Census of Fatal Occupational Injuries

The Census of Fatal Occupational Injuries (CFOI), conducted by the Bureau of Labor Statistics (BLS) in the US Department of Labor, is a federal-state cooperative program that compiles an annual census of fatal occupational injuries at both the state and national levels. To be included in the fatality census, the deceased person must have been employed (working for pay, compensation, or profit) at the time of the incident, engaged in a work activity, or present at the incident site as a requirement of his or her job. Private wage and salary workers, the self-employed, and public sector workers are covered by the census. Fatalities that occur during a regular commute to or from work are excluded, as well as deaths resulting from acute or latent illnesses, which can be difficult to identify as work-related. The census includes unintentional injuries (e.g., falls, electrocutions, motor vehicle crashes) and intentional injuries (homicide and suicide). CFOI uses multiple data sources to identify and document work-related injury deaths, and CFOI counts are considered a complete or nearly complete ascertainment of work-related injury deaths. In Massachusetts, CFOI is conducted by the MDPH Occupational Health surveillance Program (OHSP) in conjunction with BLS. CFOI findings for Massachusetts can be accessed at <http://www.bls.gov/iif/oshstate.htm> and is also available on the MDPH-OHSP website: www.mass.gov/dph/ohsp.

Limitations: CFOI reports work-related fatalities by the state in which the fatal incident occurred, which is not necessarily the state of death or state of residence. The denominator data used for calculating rates is based on state of residence. Thus, state rates may overestimate risk if deceased persons working in Massachusetts were out-of-state residents and underestimate the risk if deceased workers were Massachusetts residents but were fatally injured in other states.

Death File

See Vital Records.

Disease Surveillance System

See Infectious Diseases.

Early Intervention (EI)

Early Intervention in Massachusetts is a statewide, integrated, developmental service available to families of children between birth and three years of age. Children may be eligible for EI if they have developmental difficulties due to identified disabilities, or if typical development is at risk due to certain birth or environmental circumstances.

EI provides family-centered services that facilitate the developmental progress of eligible children. EI helps children acquire the skills they will need to continue to grow into happy and healthy members of the community.

<http://www.mass.gov/dph/earlyintervention>

Food Protection Program

The Massachusetts Food Protection Program, within Bureau of Environmental Health in the Department of Public Health, strives to ensure a safe and wholesome food supply in the Commonwealth of Massachusetts. The program accomplishes this objective by developing regulations, policies and interpretations; conducting routine inspections; conducting food borne illness complaint investigations and responding to other food emergency incidents; participating in cooperative food safety inspection programs with other state, federal and local agencies; offering educational programs; and undertaking regulatory enforcement actions such as embargoes, administrative sanctions, and civil or criminal penalties.

<http://www.mass.gov/dph/fpp>

Heart Disease and Stroke Prevention and Control Program

The Massachusetts Heart Disease and Stroke Prevention and Control Program (HSPC) provides leadership across the state in the areas of Heart Disease, Stroke, Related Risk Factors.

HSPC provides education and quality improvement; creates partnerships; and promotes evidence-based changes at the policy and environmental levels to reduce disparities, disease, disability and death.

<http://www.mass.gov/dph/heartstroke>

HIV / AIDS Surveillance System

See Infectious Diseases.

Infectious Diseases

Approximately 80 infectious diseases and conditions are reportable in Massachusetts. Of these, 15 are reportable directly to MDPH. These include sexually transmitted diseases (STDs) and HIV/AIDS, and tuberculosis. The remaining are reportable to local public health departments and MDPH.

The Office of Integrated Surveillance and Informatics Services (ISIS) principal goal is to ensure the timely and accurate processing of critical infectious disease information. ISIS is charged with streamlining and enhancing surveillance and informatics activities and related resources in order to meet three specific surveillance and informatics goals:

- Identify commonalities and resources shared across the Bureau to achieve improved surveillance data used to make policy decisions.
- Identify and monitor disease threats and trends, including the emergence of disease in new populations and the emergence of new disease and disease variants.
- Identify and implement new technologies to support surveillance activities and emergency preparedness.

The Division of STD Prevention's primary goal is the reduction and prevention of the incidence of sexually transmitted diseases, including HIV infections. STDs are reportable directly to the Department. The clinical and epidemiologic data collected are used to track trends, identify outbreaks and provide information to prevent further transmission of disease. A variety of population- and community-based educational activities further enhance the efforts of the Division and the community to promote healthful behaviors, which reduce the burden of illness and prevent the spread of these infections.

The goal of the HIV/AIDS Surveillance Program is to provide a comprehensive picture of the HIV/AIDS epidemic in order to support prevention and health service activities delivered by the Department of Public Health and a statewide system of health care and social service organizations. The program also works collaboratively with planning and policy groups, health care providers and other Bureaus within the Department of Public

Health, providing surveillance information and assisting with assessment of resource distribution and ongoing planning to ensure that the needs of people at risk for infection or infected with HIV are met.

Marine Beaches in Massachusetts

In 2000, the US Congress enacted the Beaches Environmental Assessment and Coastal Health (BEACH) Act to improve the quality of coastal recreational waters. The BEACH Act seeks to reduce the risk of disease to users of the Nation's marine recreational waters through the identification of high-risk beaches, identification and mitigation of sources of pollution, and notification/risk communication to the public. In late 2001, the Massachusetts Department of Public Health (MDPH) was awarded funding from the United States Environmental Protection Agency (USEPA) that partially support Departmental efforts to develop a bathing beaches inventory and communicate results of beach monitoring to the general public.

The Massachusetts Department of Public Health beaches website can be accessed at <http://www.mass.gov/dph/topics/beaches.htm>.

MassCHIP

The Massachusetts Community Health Information Profile (MassCHIP) is a dynamic, user-friendly information service that provides free, online access to many health and social indicators. With MassCHIP, you can obtain community-level data to assess health needs, monitor health status indicators, and evaluate health programs.

Community-level data can be accessed through MassCHIP in two ways, both having a tremendous wealth of information. One way is by generating Instant Topics (formerly known as standard reports), which are predefined reports using MassCHIP's most recent data. Another way for an even more in-depth view of your data source and particular selectors, not available within Instant Topics, is by creating user-defined Custom Reports.

- **Data Sources:** Access 36 data sources with data on vital statistics, communicable diseases, sociodemographic indicators, public health program usage, and other health, education, and social service indicators.

- **Geographic Area:** Access data for particular geographic areas or levels, such as for a town, county, school district, or for the entire state.
- **Other Search Categories:** Access data by a variety of other categories, such as health topic, year, age, income level, and gender.
- **Calculated Statistics and Measurements:** Calculate various measures on selected data, such as crude rates, age-adjusted rates, or age-specific rates.
- **Types of Reports:** Create instant topics (predefined) or custom (user-defined) reports, charts, and maps.

<http://www.mass.gov/?pageID=eohhs2subtopic&L=4&LO=Home&L1=Researcher&L2=Community+Health+and+Safety&L3=MassCHIP&sid=Eeohhs2>

MMARS05 File – MDPH City and Town Estimates for 2005

In the years since Census 2000, the distribution of Massachusetts residents has changed by age, race/ethnicity, and sex. In 2006, because these changes were significant, MDPH decided to produce updated population estimates by age, race/ethnicity, and sex at the city/town level.

These estimates were created using the city/town age, race/ethnicity, and sex proportions from the MDPH Census 2000 file and applying them to the MARS 2005 county estimates. The MMARS05 estimates were used to calculate population-based rates in this report, especially for EOHS regions. These estimates are available on MassCHIP.

Pediatric Asthma Surveillance System

The Massachusetts Department of Public Health is one of 16 states and one metropolitan city involved in the National Environmental Public Health Tracking (EPHT) surveillance system, an ongoing data collection and analysis tool that allows public health officials to look at data about environmental hazards and health indicators to determine the need for further evaluation. Given the need for a comprehensive, systematic approach to pediatric asthma tracking in the Commonwealth, the MDPH Bureau of Environmental Health developed a proposal to CDC to track pediatric asthma through school health records as part of EPHT. In 2002, a standardized pediatric asthma surveillance

or “tracking” system that collects asthma prevalence data at the community (city/town) level was developed and implemented.

Beginning in February 2000, public school nurses and private school health contacts were mailed a one-page reporting form asking for aggregate numbers of children with asthma by grade, gender, and school building. Ideally, future efforts should attempt to obtain race/ethnicity. The list of schools was generated by the Massachusetts Department of Elementary and Secondary Education (ESE) and included any school that served grades K-8. Because several of these schools serve grades that are not included in this surveillance effort (i.e., schools serving grades 6-12), the report form and instruction sheet made it explicitly clear that only data on students in grades K-8 should be reported.

Pregnancy to Early Life Longitudinal (PELL) Data System, a public-private partnership between MDPH, the Boston University School of Public Health, and the Centers for Disease Control and Prevention, is an innovative, population-based data system that links vital records with a broad range of maternal and child health (MCH) datasets. Initially developed to examine the impact of prenatal and perinatal experiences on subsequent maternal, infant, and child health, PELL offers public health practitioners and researchers the ability to study risk and protective factors and health outcomes longitudinally over the life span. The core PELL data set includes birth certificates and fetal death reports linked to the infant’s birth hospital discharge (HD) record and the mother’s delivery HD record. This core linkage is longitudinally linked to hospital utilization data and statewide programmatic and surveillance datasets. PELL data have been used for the study of morbidity and mortality among children, mothers and families, tracking of hospital and program utilization and associated costs, and evaluation of state MCH programs.

Pregnancy Risk Assessment Monitoring System (PRAMS), a joint surveillance project between the Centers for Disease Control and Prevention and MDPH, is a self-administered survey that collects data on maternal attitudes and experiences before, during, and shortly after pregnancy. Massachusetts PRAMS data collection began in June 2007. The PRAMS sample is randomly drawn from Massachusetts birth certificates and includes women who have had a recent live

birth in the state. Massachusetts samples approximately 2,400 women per year. Women from some groups are sampled at a higher rate to ensure adequate data are available in smaller but higher risk populations. Selected women are first contacted by mail. If there is no response to repeated mailings, women are contacted and interviewed by telephone. PRAMS data can be used to identify groups of women and infants at high risk for health problems, to monitor changes in health status, and to measure progress towards goals in improving the health of mothers and infants. PRAMS data are used by state and local governments to plan and review programs and policies aimed at reducing health problems among mothers and babies.

<http://www.mass.gov/dph/prams>

Occupational Health Survey of Community Health Centers

This one time survey was carried out the MDPH Occupational Health Surveillance Program (OHSP) in collaboration with five community health centers (CHC). The purpose of the survey was to describe the occupational health experience of a sample of CHC patients, with the intent of learning more about workplace risks faced by minority and immigrant workers. During 2002-2003, a sample of 1,428 patients at the five CHCs completed the anonymous survey. Surveys were administered orally in English, Spanish, Vietnamese, Portuguese, Cape Verdean Creole and Khmer by trained interviewers. Of those approached to complete the survey, 83% were willing to participate. Participation was limited to adult patients who had worked for pay during the previous 12 months. Findings of this survey are available on the MDPH-OHSP website: <http://www.mass.gov/dph/ohsp>.

Limitations: Survey respondents were not necessarily representative of CHC patients throughout Massachusetts or of all patients at the five participating CHCs.

Sharps Injury Surveillance System

The Massachusetts Department of Public Health requires licensed acute and non-acute care hospitals to report all sharps injuries among hospital workers to the MDPH on an annual basis, in accordance with 105 CMR 130.1007. A sharps injury is defined as a blood borne pathogen exposure incident that

is the result of events involving a contaminated sharp device that pierces the skin or mucous membranes and occurs during the performance of a worker's job duties. The Massachusetts Sharps Injury Surveillance System collects data on sharps injuries to workers in Massachusetts hospitals. Information such as the occupation of the healthcare worker, department in which the injury occurred, type of device involved in the injury, whether or not the device was a safety device, procedure for which the device was used or intended, and how the injury occurred is collected for each injury. Summary reports of surveillance findings are published annually and available on the on the MDPH-OHSP website.

Limitations: Underreporting of sharps injuries by employees has been documented in a number of studies, thus, the numbers reported to MDPH by hospitals are believed to be conservative estimates. Sharps injury rates presented in this report are defined as the number of reported sharps injuries per 100 licensed beds. These rates are only approximate measures of risk, as they do not take into account the number of devices used. This information is not available.

STD Surveillance System

See Infectious Diseases.

Substance Abuse Treatment

The Bureau of Substance Abuse Services (BSAS) manages the Substance Abuse Management Information System (SAMIS), which includes admission, discharge, and invoice information on a variety of substance abuse treatment services delivered in over 150 publicly funded treatment agencies, with over 400 separate programs.

- Years available 1992-2006; for 2007 forward, available information will vary with system changes.

Survey of Occupational Injuries and Illnesses (SOII)

The Survey of Occupational Injuries and Illnesses (SOII), conducted by the Bureau of Labor Statistics (BLS) in the US Department of Labor, provides annual estimates of the numbers and incidence rates of work-related injuries and illnesses among private sector workers at the state and national levels. Information is collected from a sample of employers on all work-related injuries and illnesses that resulted in one or more of the following:

loss of consciousness, restricted work activity, job transfer, or medical treatment beyond simple first aid. In Massachusetts, the SOII is conducted by the Division of Occupational Safety within the Executive Office of Labor and Workforce Development, in conjunction with BLS. SOII findings for Massachusetts can be accessed at <http://www.bls.gov/data/home.htm#injuries> and is also available on the Division of Occupational Safety website at www.mass.gov/dos/stats/index.htm.

Limitations: Because the SOII is based on a sample—and not a census—of all employer establishments, the SOII findings are estimates subject to sampling error. The self-employed, farms with fewer than 11 employees, private households, federal agencies, the military, as well as state and municipal workers, are excluded from the SOII. These sectors collectively comprise approximately 21% of the US workforce. In addition, it is well recognized that the survey undercounts work-related illnesses, especially long-latency illnesses that may not appear until years after individuals have left their place of employment. There is also evidence that injuries are underreported.

Survey of Policies and Programs Related to Health for Cities and Towns in Massachusetts (2007)

In 2002 and 2007, MDPH Bureau of Community Health Access and Promotion conducted a community-based survey. This survey was administered to the 351 cities and towns in Massachusetts and was used to inventory municipal policies and programs related to health. In 2002, various stakeholders were engaged to help in the development of the community survey; these stakeholders included DPH staff from other programs (Nutrition and Physical Activity, Diabetes Prevention and Control, and Tobacco Control), Massachusetts Municipal Association, Massachusetts Association of Health Boards, Harvard School of Public Health, Regional Planning Council representatives, and various community-based organizations. Using the CDC Community Guide as their reference, the stakeholder group identified areas of focus to be included in the survey. These areas of focus included access to physical activity facilities, access to healthy foods, and local ordinances and policies that facilitate active and healthy community environments. In 2007, the survey was updated to include two additional sections, local development and emergency preparedness and planning. For purposes of this report, only 2007 data have

been reported. In 2007, 211 cities and towns responded to the survey, with 205 identifying which region their city or town belongs to. The limitations in interpreting this data include the following: the 2007 survey results should not be generalized to the state or regionally, "do not know" and "missing" responses were dropped from the calculations for purposes of this report.

Teens at Work Injury Surveillance System

The MDPH Teens at Work (TAW) Injury Surveillance System uses multiple data sources, primarily workers' compensation claims for injuries resulting in five or more lost workdays and emergency department records, to identify nonfatal work-related injuries to teens less than 18 years of age. Follow-up interviews are conducted with a sample of injured teens to learn more about factors that contributed to the injuries and to identify worksites for follow-up. TAW surveillance reports are available on the MDPH-OHSP website: <http://www.mass.gov/dph/ohsp>.

Limitations: The available workers' compensation data are limited to claims for injuries or illnesses resulting in five or more lost workdays. A sample of hospital emergency departments actively report injuries to working teens to MDPH on a monthly basis; however, findings based on this sample are not representative of all occupational injuries to teens treated in hospital emergency departments. The statewide dataset of all emergency department visits is also used to characterize work-related injuries to teens on an annual basis. Designation of workers' compensation as payer is used to identify work-related cases in this dataset. As noted in description of workers' compensation data, not all injured workers' eligible for workers' compensation are reported to the workers' compensation system. Thus, findings of work-related injuries to teens based on workers' compensation information are believed to be conservative estimates. The sample of teens with work-related injuries that complete interviews is not necessarily representative of all teens with work-related injuries in the state.

Violent Death Reporting System (MAVDRS)

The Massachusetts Violent Death Reporting System (MAVDRS) collects and links data on all violent deaths within the Commonwealth. It includes detailed information on all

homicides, suicides, unintentional firearm deaths, and deaths of undetermined intent.

The system combines information from death certificates, medical examiner records, toxicology reports, police reports and crime laboratory reports. Individually, these sources explain violence only in a narrow context; together, they provide comprehensive answers to the questions that surround violent death: who, what, when, where, and, in many cases, why. No other system offers this benefit.

This standardized database is part of the National Violent Death Reporting System (NVDRS) developed and funded by the Centers for Disease Control and Prevention (CDC). There are currently 18 states funded to participate in NVDRS. Massachusetts was one of the first six states funded. Data collection began with deaths occurring on or after January 1, 2003.

The ultimate goal of NVDRS is to provide communities with a clearer understanding of violent deaths so these deaths can be prevented. Understanding the complex circumstances surrounding these deaths will provide important and useful information in the development of prevention initiatives. NVDRS provides insight into the potential points for intervention and ways to evaluate and improve violence prevention efforts.

Women, Infants and Children (WIC) Nutrition Program

The Massachusetts Women, Infants and Children Nutrition (WIC) Program provides nutrition and health education, healthy food and other services free of charge to Massachusetts families who qualify. Participants receive checks to buy free healthy food such as milk, cheese, 100% fruit juices, cereals, infant formula, peanut butter, carrots, tuna, dried beans, and eggs. The WIC Program collaborates with the US Department of Food and Agriculture to provide WIC participants with coupons, redeemable at Farmers' Markets for fresh fruits and vegetables during the summer months.

WIC's goal is to help keep pregnant and breastfeeding women and children under age five healthy. WIC provides personalized nutrition consultations, checks to buy free, healthy food, referrals for medical and dental care, health insurance, childcare, housing and fuel assistance, and other services that can benefit the whole family.

WIC also offers immunizations screening and referrals, breast-feeding support, and nutrition and health workshops on a variety of topics including meal planning, maintaining a healthy weight, picky eaters, caring for a new baby, and shopping on a budget.

[http://www.mass.gov/?pageID=eohhs2subtopic&L=5&LO=Home&L1=Consumer&L2=Basic+Needs&L3=Food+%26+Nutrition&L4=Women%2C+Infants+and+Children+\(WIC\)+Nutrition+Program&sid=Eeohhs2](http://www.mass.gov/?pageID=eohhs2subtopic&L=5&LO=Home&L1=Consumer&L2=Basic+Needs&L3=Food+%26+Nutrition&L4=Women%2C+Infants+and+Children+(WIC)+Nutrition+Program&sid=Eeohhs2)

Workers' Compensation Data

Workers' compensation is a no-fault insurance system designed to provide medical benefits and lost wage replacement to workers who sustain work-related injuries or illnesses. Massachusetts law requires both private and public sector employers, with rare exceptions, to maintain workers' compensation insurance coverage. All injuries or illnesses arising out of the course of employment that result in five or more lost work days must be reported to the Massachusetts Department of Industrial Accidents (DIA), where the records are entered into the electronic case management system. These MDIA data are made available to the MDPH Occupational Health surveillance Program for purposes of conducting surveillance of work-related injuries and illnesses. OHSP reports based on MDIA data can be found on the MDPH-OHSP website.

Limitations: In Massachusetts, the workers' compensation system excludes railroad workers, seafarers, police officers, firefighters, shipyard and harbor workers, and federal employees who are covered by other insurance systems. The self-employed are also excluded. (In 2004, the Massachusetts workers' compensation law was changed to allow self-employed workers to carry workers' compensation coverage voluntarily). A number of studies conducted in various states have demonstrated that not all work-related injuries and illnesses among workers eligible for workers' compensation are reported to state workers' compensation systems. There are substantial differences among the workers' compensation systems across states that preclude inter-state comparisons, and national workers' compensation data are not available.

Worksite Health Improvement Survey (2008)

In April 2008, MDPH surveyed a random sample of 3,000 Massachusetts worksites with 11 or more employees to assess

their practices with regard to promoting and protecting employee health and well-being within their organizations. Just fewer than 30% of the businesses (890) responded, providing a comprehensive picture of how well the Commonwealth's businesses support health-promoting behaviors. The sampling frame for the survey consisted of a list of 30,584 worksites with 11 or more employees in the Commonwealth of Massachusetts. Potential respondents were selected at random, providing a stratified sample of 3,000 worksites. Since over half of the worksites had no more than 24 employees, the sampling plan was designed to provide sufficient numbers of responses among organizations with more than 24 employees. The range of error on a simple random sample of 890 worksites out of a population of 30,584 is plus or minus 3.3% at the 95% level of confidence. The range of error adjusted for the stratified sampling plan is plus or minus 0.66% at the 95% level of confidence. However, sampling error is but one of several possible sources of error in the data. The respondent's interpretation of the questions and the accuracy of their knowledge about their worksite could be sources of error in the survey findings. The survey results have been statistically weighted to represent the organizations by number of employees and MDPH region in the same proportions in which they appeared in the sampling frame of 30,584 worksites.

Vital Records

MDPH holds data relating to nearly 250,000 annual vital events (e.g., births, marriages, deaths) that occur in Massachusetts in accordance with Massachusetts General Laws and regulations.

Mortality

Data on mortality are based on information on death certificates filed with the Massachusetts Registry of Vital Records and Statistics. Physicians and medical examiners assign the cause of death through a system that acknowledges the possibility of multiple causes. Demographic information on the certificates, such as age, race, Hispanic ethnicity, gender, educational attainment, marital status, and occupation, is recorded by the funeral director based on information provided by an informant, usually a family member, or, in the absence of an informant, based on observation or omitted. Resident data include all deaths that occur to residents of the Commonwealth, regardless of where they happen. In Massachusetts, a resident is a

person with a permanent address in one of the 351 cities or towns. Occurrence data include all events that occur within the state, whether to residents or nonresidents. All data in this chapter are for Massachusetts residents unless otherwise stated. There is an exchange agreement among the 50 states, District of Columbia, Puerto Rico, US Virgin Islands, Guam, and Canadian provinces that provides for the exchange of copies of death records for persons dying in a state other than their state of residence. These records are used for statistical purposes only, and allow each state or province to track the deaths of its residents.

The underlying cause of death is generated by the Super Mortality Medical Indexing, Classification, and Retrieval system (Super MICAR). This is a computer software algorithm developed by the National Center for Health Statistics and used by all US jurisdictions so that assignment of cause of death codes is consistent throughout the US

Births

The current file format was implemented in 1996 and includes demographic information about the parents, infant characteristics, pregnancy and prenatal care information, and medical information about the mother and infant.

- Years available: 1969-2006

Linked birth/infant deaths

The linked birth/infant death file is a data set composed of linked birth and death certificates for infants born in Massachusetts who died before reaching one year of age. This is a birth file cohort, with a given year's birth records linked with deaths for that year and the following year. The format includes data elements from birth and death certificates.

- Years available: 1987-2005

Fetal deaths

The fetal death file includes information on reported fetal deaths of 20 or more weeks gestation or those where the fetus weighed at least 350 grams. The current file format was implemented in 1998 and includes demographic information about the parents and medical information about the mother and fetus.

- Years available: 1970 – 2006

Youth Health Survey (YHS)

The Youth Health Survey is the Massachusetts Department of Public Health's (MDPH) surveillance project to assess the health of public school students in grades 6 through 12 (Massachusetts Department of Public Health, 2008). It is conducted every other year by the MDPH in collaboration with the Massachusetts Department of Elementary and Secondary Education (ESE). The survey was administered to approximately three randomly selected high school classrooms and two randomly selected middle school classrooms in each participating school. In 2007, data were collected from over 3,000 high school students within 58 schools and from over 2,700 middle school students from grades 6 through 8 within 67 schools. The overall response rate (student response rate x school response rate) was 74% for the high school survey and 49% for the middle school survey. The survey contains questions regarding health status, risk behaviors, and protective factors. The MA YHS survey instrument and methodology are available from the Massachusetts Department of Public Health, Office of Statistics and Evaluation.

As a result of close adherence to the scientific sampling process and the creation of weights to account for non-response, the MA YHS statistics presented in this report are representative of students attending public middle and high schools in Massachusetts. Since students from the same school are more likely to be similar to one another than to students from different schools, all analyses account for the effect of clustering at the school level (Massachusetts Department of Public Health, 2008).

<http://www.doe.mass.edu/cnp/hprograms/yrbs/2007YRBS.pdf>

Federal Governmental Agencies

American Community Survey (ACS), US Census Bureau

The American Community Survey (ACS) is a new approach for collecting accurate, timely information needed for critical government functions. The American Community Survey provides annual estimates of demographic, housing, social, and economic characteristics for numerous geographies every year. The American Community Survey provides one-year estimates for all states as well as for cities, counties, and metropolitan areas with a total population of 65,000 or more. Beginning in

December 2008, the American Community Survey began to provide three-year estimates for geographies with a total population of 20,000 or more. By the end of 2010, the American Community Survey plans to provide 5-year estimates for all geographies, even those with very small populations.

The American Community Survey data sets are available from the US Census Bureau, American Factfinder.

http://factfinder.census.gov/home/saff/main.html?_lang=en

Current Population Survey (CPS), Bureau of Labor Statistics

The Current Population Survey (CPS) is a monthly survey of about 50,000 households conducted by the Bureau of the Census for the Bureau of Labor Statistics. The survey has been conducted for more than 50 years.

The CPS is the primary source of information on the labor force characteristics of the US population. The sample is scientifically selected to represent the civilian non-institutional population. Respondents are interviewed to obtain information about the employment status of each member of the household 15 years of age and older. However, published data focus on those ages 16 and over. The sample provides estimates for the nation as a whole and serves as part of model-based estimates for individual states and other geographic areas.

CPS data are used by government policymakers and legislators as important indicators of our nations' economic situation and for planning and evaluating many government programs. They are also used by the press, students, academics, and the general public.

<http://www.census.gov/cps/>

Healthy People 2010

Healthy People 2010 is a set of health objectives for the Nation to achieve over the first decade of the new century. It can be used by many different people, States, communities, professional organizations, and others to help them develop programs to improve health.

Healthy People 2010 builds on initiatives pursued over the past two decades. The 1979 Surgeon General's Report, *Healthy*

People, and *Healthy People 2000: National Health Promotion and Disease Prevention Objectives* both established national health objectives and served as the basis for the development of State and community plans. Like its predecessors, Healthy People 2010 was developed through a broad consultation process, built on the best scientific knowledge and designed to measure programs over time.

<http://www.healthypeople.gov/default.htm>

Local Area Unemployment Statistics (LAUS), Bureau of Labor Statistics

The Local Area Unemployment Statistics (LAUS) program is a Federal-State cooperative effort in which monthly estimates of total employment and unemployment are prepared for approximately 7,300 areas including states, counties and county equivalents, cities of 25,000 population or more, and cities and towns in New England regardless of population.

These estimates are key indicators of local economic conditions. The Bureau of Labor Statistics (BLS) of the US Department of Labor is responsible for the concepts, definitions, technical procedures, validation, and publication of the estimates that State employment security agencies prepare under agreement with BLS.

A wide variety of customers use these estimates, including Federal programs, state and local governments, and private industry, researchers, the media, and other individuals.

<http://www.bls.gov/lau/lauov.htm>

Modified Age, Race, Sex (MARS) Estimates, National Center for Health Statistics (NCHS)

The National Center for Health Statistics (NCHS) releases bridged-race population estimates of the resident population of the United States, based on Census 2000 counts, for use in calculating vital rates. These estimates result from bridging the 31 race categories used in Census 2000, as specified in the 1997 Office of Management and Budget (OMB) standards for the collection of data on race and ethnicity, to the four race categories specified under the 1977 standards. Many data systems, such as vital statistics, are continuing to use the 1977 OMB standards

during the transition to full implementation of the 1997 OMB standards. The bridged-race population estimates are produced under a collaborative arrangement with the US Census Bureau.

Each year, the Massachusetts Department of Public Health (MDPH) downloads the MARS file from NCHS and customizes it for the needs of the Department. For example, single year of age data are combined into five-year age groups, Hispanic ethnicity information is combined with race to form special race and Hispanic ethnicity groups, such as, White non-Hispanic. The standard population files for the Department are created and used as the denominators of rates, such as death rates and teen birth rates.

MARS files are available from http://www.cdc.gov/nchs/nvss/bridged_race.htm.

National Survey on Drug Use and Health (NSDUH), Substance Abuse and Mental Health Services Administration (SAMHSA)

The National Survey on Drug Use and Health (NSDUH) is an annual nationwide survey involving interviews with approximately 70,000 randomly selected individuals aged 12 and older. Data from the NSDUH provide national and state-level estimates on the use of tobacco products, alcohol, illicit drugs (including non-medical use of prescription drugs) and mental health in the United States. In keeping with past studies, these data continue to provide the drug prevention, treatment, and research communities with current, relevant information on the status of the nation's drug usage. To assess and monitor the nature of drug and alcohol use and the consequences of abuse, NSDUH strives to: provide accurate data on the level and patterns of alcohol, tobacco, and illicit substance use; track trends in the use of alcohol and various types of drugs; assess the consequences of substance use and abuse; and identify those groups at high risk for substance use and abuse.

<https://nsduhweb.rti.org/>

National Vital Statistics System (NVSS), CDC/NCHS

NVSS collects and publishes official national statistics on births, deaths, fetal deaths, and, prior to 1996, marriages and divorces occurring in the United States, based on US Standard

Certificates. Fetal deaths are classified and tabulated separately from other deaths. The are five vital statistics files – Birth, Mortality, Multiple Cause-of-Death, Linked Birth/Infant Death, and Compressed Mortality.

National Vital Statistics System (NVSS), Compressed Mortality File (CMF)

The CMF is a county-level national mortality and population database. The CMF contains mortality data derived from the detailed Mortality files of the National Vital Statistics System and estimates of US national, state, and county resident populations from the US Census Bureau. For 1968–1998, number of deaths, crude death rates, and age-adjusted death rates can be obtained by place of residence (total US, state, and county), age group, race (white, black, and other), sex, year of death, and underlying cause of death. For 1999–2006, mortality statistics can be obtained by place of residence, by age group and expanded race groups (white, black, American Indian or Alaska Native, Asian or Pacific Islander), and by Hispanic origin.

http://www.cdc.gov/nchs/products/elec_prods/subject/mcompres.htm

Population Estimates Program, US Census Bureau

The Census Bureau's Population Estimates Program publishes population numbers between censuses. The Census Bureau publishes July 1 estimates for years after the last decennial census (2000), as well as for past decades. Data series for births, deaths, and domestic and international migration are used to update the decennial census base counts.

The Population Estimates Program develops and prepares the official estimates of the population by age, sex, race, and Hispanic origin for the nation, states and counties. The Program provides estimates of the total populations of towns and cities. These estimates are used in federal funding allocations as denominators for vital rates and per capita time series, as survey controls, and in monitoring recent demographic changes. With each new issue of July 1 estimates, the Census Bureau revises estimates for years back to the last census. Previously published estimates are superseded and archived.

http://factfinder.census.gov/home/saff/main.html?_lang=en

Regional Economic Information System (REIS), Bureau of Economic Analysis (BEA)

This system contains information for all counties, States, metropolitan statistical areas, and BEA Economic Areas, 1969-99, for personal income by major source, per capita personal income, population, earnings by 2-digit Standard Industrial Classification (SIC) industry, full-time and part-time employment by 1-digit SIC industry, regional economic profiles, transfer payments by major program, farm income and expenses, and the BEA Regional Fact Sheet (BEARFACTS). It also includes State quarterly personal income estimates; county-level gross commuting flows for 1981-99; Census Bureau estimates on intercounty commuting flows for 1960, 1970, 1980, and 1990; and Census Bureau county-level commuting flows and average wage estimates at the 1-digit SIC level for 1980 and 1990.

<http://www.bea.gov/beat/regional/reis/>

Smoking-Attributable Mortality, Morbidity, and Economic Costs (SAMMEC), Centers for Disease Control and Prevention (CDC)

The Adult and Maternal and Child Health Smoking-Attributable Mortality, Morbidity and Economic Cost (SAMMEC) software was developed by the CDC to estimate the disease impact of smoking among adults and pregnant women in the United States, individual states, and other large populations. The disease impact of smoking refers to the health and health-related economic consequences of smoking, including smoking-attributable deaths, years of potential life lost, excess health care expenditures, and productivity losses. These measures help public health researchers and policymakers quantify the adverse effects of cigarette smoking.

The SAMMEC application contains two distinct Internet-based computational programs that can be used to estimate the disease impact of smoking on adults and infants. The Adult SAMMEC application provides users the ability to estimate Smoking-Attributable Mortality (SAM), Years of Potential Life Lost (YPLL), medical expenditures, productivity losses, SAM rate and YPLL rate. The Maternal and Child Health (MCH) SAMMEC application provides users the ability to estimate smoking-attributable infant deaths, YPLL and excess neonatal health care costs.

<http://apps.nccd.cdc.gov/sammec/index.asp>

WONDER, Centers for Disease Control and Prevention (CDC)

The Wide-ranging Online Data for Epidemiologic Research (WONDER) is an easy-to-use, menu-driven system that makes the information resources of the Centers for Disease Control and Prevention (CDC) available to public health professionals and the public at large. It provides access to a wide array of public health information.

<http://wonder.cdc.gov>

Massachusetts State Agencies

Air & Climate Data, Massachusetts Department of Environmental Protection (MassDEP)

The MassDEP maintains a website through which residents can download ambient air quality data. MassDEP air monitoring data from 2007 through yesterday is available for download by month and year. Files are created each night, meaning today's data will not be available until tomorrow. If you require data for today, click on one or both of these tabs: Trends by Pollutant or Trends by Site.

<http://public.dep.state.ma.us/MassAir/Pages/GetData.aspx?&ht=2&hi=203>

Board of Registration in Medicine – Physicians Registered in Massachusetts

Massachusetts was the first state to offer a comprehensive program to give patients access to information about the education, training, and experience of all licensed physicians. The "Physician Profiles" program is one tool patients can use to make the right health care decisions. Patients are encouraged to use the physician profile information to foster better communication with a physician. Consumers use Physician Profiles when trying to choose a physician from a list supplied by their health insurer. Others have found the information useful when they have been referred to a specialist. Expectant mothers use Physician Profiles as one step in choosing an obstetrician. Many physicians use the system to help patients when making a referral to a specialist.

The following information is available: Education, Training, Medical Specialties, Professional demographics, including

business address, insurance plan and hospital affiliations, and available translation services, professional or community awards received, research or publications by the physician, malpractice claims paid in the past ten years, hospital discipline in the past ten years, criminal convictions in the past ten years, disciplinary actions of the Massachusetts Board of Registration in Medicine in the past ten years.

Physician Profiles can be found on the Board's Web site: www.massmedboard.org

Division of Health Care Finance and Policy Datasets

Acute Hospital Case Mix Databases

The Division of Health Care Finance and Policy (Division) collects patient-level data for Massachusetts acute care hospital inpatients, observation patients, and emergency room patients to support the Division's analyses of such issues as preventable hospitalizations, hospital market analysis, alternative care settings, the patient care continuum, and comparative costs and outcomes in acute care hospitals.

Hospitals report their data to the Division on a quarterly basis for the fiscal year beginning on October 1. The Division prepares the annual database for each of the three data types available to the public. Data submissions are edited, summarized, and returned to the submitting hospital to verify the accuracy of the records.

Emergency Department Database

The Outpatient Emergency Department Database (ED) contains data elements that are similar to those contained in the inpatient and observation stay databases, with some additions relevant to the ED setting. Data elements include patient demographics, clinical characteristics, services provided, charges, and hospitals and practitioner information, as well as mode of transport.

Inpatient Discharge Database

The Division collects case mix and charge data for all inpatients discharged from Massachusetts acute care hospitals. The Hospital Inpatient Discharge Database (HIDD) contains

comprehensive patient-level information including socio-demographics, clinic data, and charge data. It is used to establish reasonable and adequate rates, to enable hospitals to be grouped for comparing costs, to assist in the formulation of health care delivery and financing policy, and to assist in the provision and purchase of health care services.

Outpatient Observation Database

The Division also collects case mix and charge data for all outpatient observation visits to Massachusetts acute care hospitals. The Outpatient Hospital Observation Discharge Database (OOA) contains comprehensive patient-level information, including socio-demographics, clinic data, and charge data. Data users include hospitals, strategic planners, policy makers, researchers, and program evaluators.

Drinking Water Program, Bureau of Resource Protection, Massachusetts Department of Environmental Protection

The Bureau of Resource Protection is responsible for protecting critical inland and coastal water resources, controlling point and nonpoint sources of pollution, safeguarding public drinking water supplies, ensuring public access to the waterfront, and administering revolving loan programs that help the state's towns and cities improve their environmental infrastructure.

The Drinking Water Program ensures that the drinking water delivered by public water systems in Massachusetts is fit and pure according to national and state standards. As US EPA'S Primacy Agent for the federal Safe Drinking Water Act in Massachusetts, the Program regulates water quality monitoring, new source approvals, water supply treatment, distribution protection, and reporting of water quality data. It also coordinates with MassDEP's Office of Watershed Management, the Water Resources Commission, and DEM's Division of Water Resources in regulating quantity of water used for drinking water supplies and in promoting water conservation. The Program maintains an active community technical assistance program to assist public water suppliers, Boards of Health, and other local groups to develop drinking water source protection plans, write local water supply bylaws, and comply with state and federal water supply regulations. Other Program activities include approval of new water supply technologies, regulation of water vendors, source approval for bottled water (bottling regulated

by MA Department of Public Health), and public education on drinking water issues.

<http://www.mass.gov/dep/about/organization/aboutbrp.htm#top>

Labor Force and Unemployment Data, Division of Unemployment Assistance, Executive Office of Labor and Workforce Development (EOLWD)

Labor force and unemployment data are estimated each month. Information is produced on labor force, employment, unemployment, and unemployment rates for the United States, the Commonwealth and for each Labor Market Area (LMA), Workforce Investment Area (WIA), City and Town, and County in Massachusetts. Use the query tool below to obtain Labor Force and Unemployment data by area and time period.

<http://lmi2.detma.org/Lmi/Unemployment.asp>

New England Newborn Screening Program (NENSP), University of Massachusetts Medical School

The New England Newborn Screening Program is a comprehensive public health screening program for newborns, providing service for five New England states. The program provides high quality, timely, low-cost laboratory screening, clinical follow-up and research to prevent or minimize the effects of disorders that can lead to death, mental retardation and life-compromising conditions in newborns.

Serving Massachusetts since 1962, the population served by the Program was expanded in 1978 when state public health departments in New England joined together to have all newborns tested. The Program provides screening for newborns in the states of Massachusetts, Maine, New Hampshire, Rhode Island and Vermont – about 500 babies every day.

The New England Newborn Screening Program employs over a dozen laboratory technicians and five technical supervisors, all highly trained, all of whom meet federal Clinical Laboratory Improvement Amendments (CLIA) regulations for high complexity testing. Clinical follow-up, data management and office staff assure continuity of flow for quality-controlled data from the hospitals through to results reporting. In addition, three Ph.D.s and

three M.D.s assure quality analysis of the laboratory technology, testing algorithms, and treatment protocols and provide support to the medical community, who welcome accurate information about the rare disorders included in newborn screening.

<http://www.umassmed.edu/nbs/index.aspx?linkidentifier=id&itimid=1606>

Workers' Compensation Database

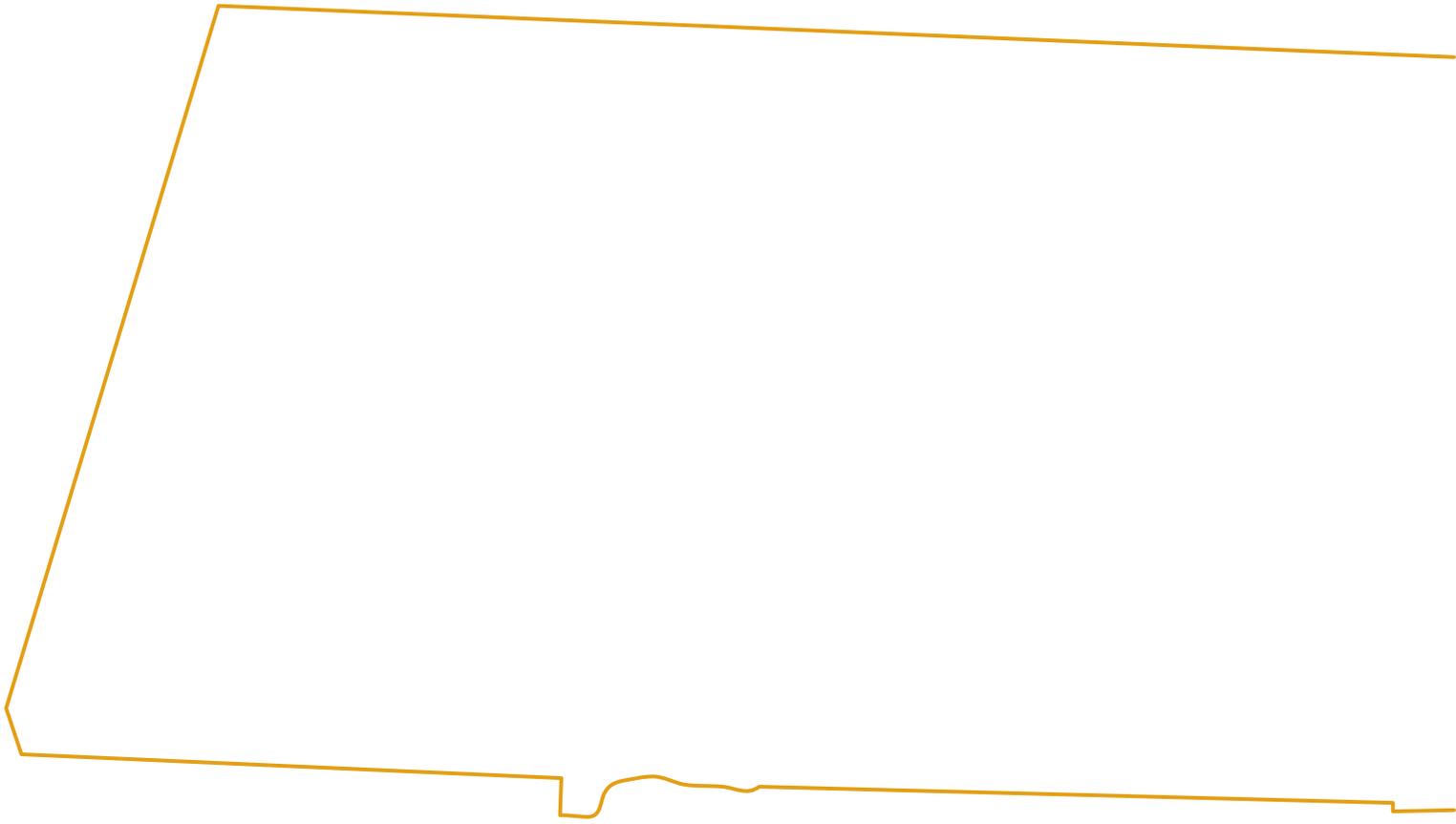
This database is maintained by the Department of Industrial Accidents (DIA), Claims Processing Operations Unit. The Claims Processing Operations Unit has two functions. The first being receipt of lost time reports reflecting five days of lost time, insurance forms, claims and liens.

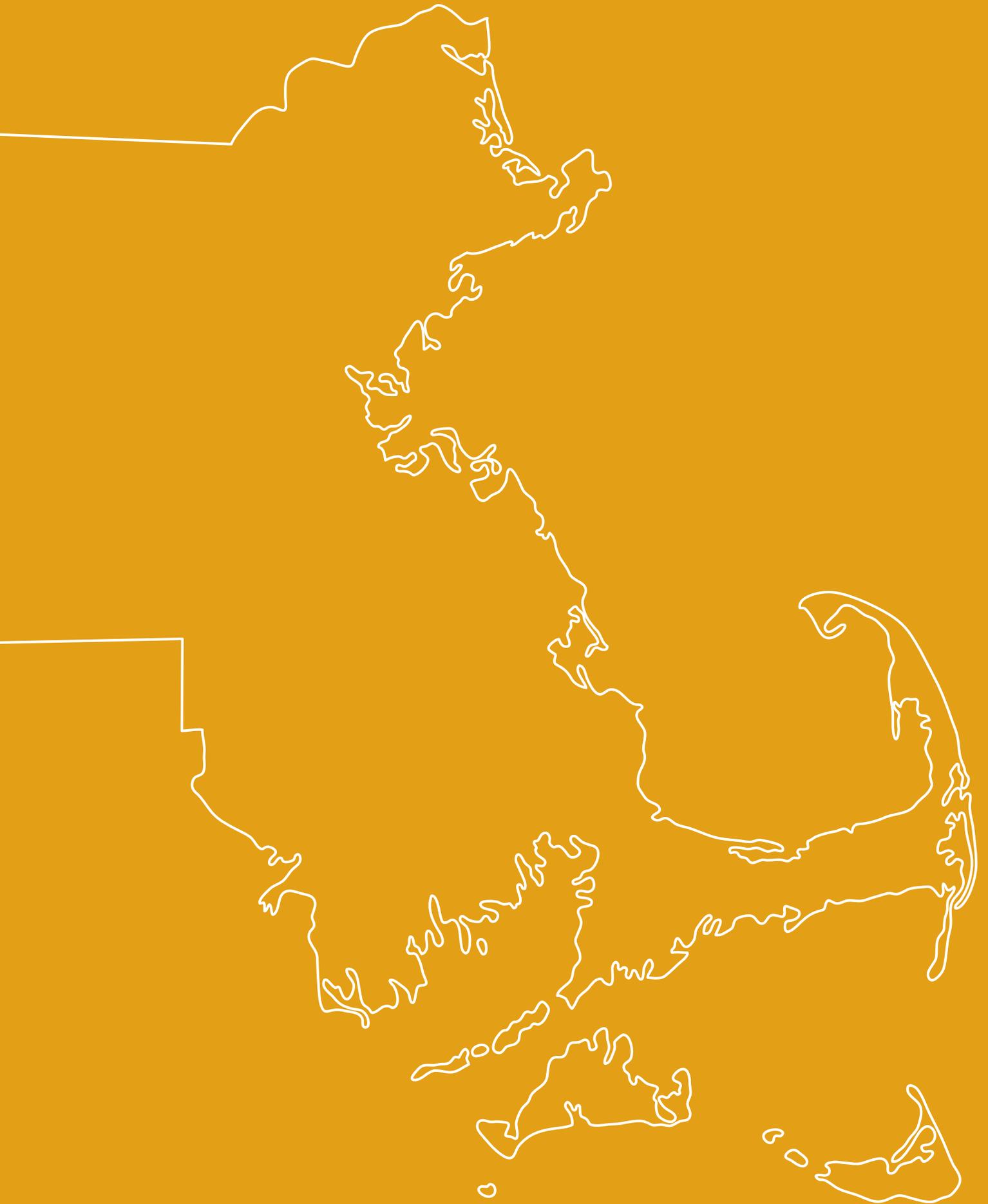
The second function is entering information (including online filings) into their case management database. This Unit established the workers' compensation case at the initial level and may result in the scheduling of a conciliation.

Contact Information

Massachusetts Department of Public Health	
Main Number	(617) 624-6000 · TDD/TTY (617) 624-6001
Adolescent Health	(617) 624-6060
Asthma Prevention and Control	(617) 624-5070
Birth Defects Center	(617) 624-5507
Birth, Death, Marriage Records	(617) 740-2606
Budget Office	(617) 624-5260
Cancer Prevention and Control	(617) 624-5070
Cancer Registry	(617) 624-5642
Childhood Lead Poisoning Prevention	(800) 532-9571
Commissioner's Office	(617) 624-6000
Community Health Access and Promotion	(617) 624-5070
Community Sanitation	(617) 624-5757
Determination of Need	(617) 753-7342
Diabetes Prevention and Control Program	(617) 624-5070
Early Intervention	(617) 624-6060
Emergency Medical Services	(617) 753-7300
Emergency Preparedness	(617) 624-5712
Environmental Health	(617) 624-5757 · TDD/TTY (617) 624-5286
Family Health and Nutrition	(617) 624-6060
Family Planning	(617) 624-6060
Food Protection Program	(617) 983-6700
General Counsel	(617) 624-5220
Health Care Safety and Quality	(617) 753-8000
Health Information, Statistics, Research and Evaluation	(617) 624-5600
Health Professions Licensure and Boards of Registration	(617) 973-0800 · TDD/TTY (617) 973-0895
Health Survey Program (BRFSS)	(617) 624-5623
Healthy Aging and Disability	(617) 624-5070
Heart and Stroke Program	(617) 624-5070
HIV / AIDS	(617) 624-5300 · TDD/TTY (617) 624-5387
Hospital Interpreter Services	(617) 624-6011
Human Resources	(800) 850-6968
Immunization Program	(617) 983-6800
Infectious Disease	(617) 983-6550
Injury Prevention and Control	(617) 624-5070
Injury Surveillance Program	(617) 624-5648

Institutional Review Board (IRB) and data for research	(617) 624-5229
Lemuel Shattuck Hospital	(617) 522-8110
Massachusetts Hospital School	(781) 828-2440
Media Relations	(617) 624-5006
Men's Health Partnership	(617) 624-5070
Nutrition and Physical Activity Unit	(617) 624-5070
Occupational Health Surveillance	(617) 624-5632
Oral Health	(617) 624-6060
Perinatal, Early Childhood, and Special Health Needs	(617) 624-6060 · TDD/TTY 624-5992
Primary Care Programs	(617) 624-6060
Privacy and Data Access Office	(617) 624-5194
Public Health Council Secretary	(617) 753-8206
Radiation Control	(617) 242-3035
Refugee and Immigrant Health Program	(617) 983-6590
Regional Health Offices	
Central Regional Health Office	(508) 792-7880 · TDD/TTY (508) 835-9796
Metro Boston Regional Health Office	(781) 828-7700 · TDD/TTY (781) 774-6619
Northeast Regional Health Office	(978) 851-7261 · TDD/TTY (978) 851-0829
Southeast Regional Health Office	(508) 984-0600 · TDD/TTY 508-984-0636
Western Regional Health Office	(413) 586-7525 · TDD/TTY (800) 769-9991
Registry of Vital Records and Statistics	(617) 740-2600
Research and Epidemiology	(617) 624-5600
Rural Health	(508) 792-7880 Ext. 2172
School Health	(617) 624-6060
School-Based Health Centers	(617) 624-6015
State Office of Pharmacy Services	(978) 858-2100
Substance Abuse Services	(617) 624-5111 · TDD/TTY (617) 624-5186
Suicide Prevention	(617) 624-5070
Tewksbury Hospital	(978) 851-7321
Tobacco Control	(617) 624-5900
Violence Prevention	(617) 624-5070
Western Massachusetts Hospital	(413) 562-4131
William Hinton State Laboratory Institute	(617) 983-6200
Women Infants & Children (WIC)	(617) 624-6100
Women's Health Network	(617) 624-5070







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