

Enhancing collection of industry and occupation data

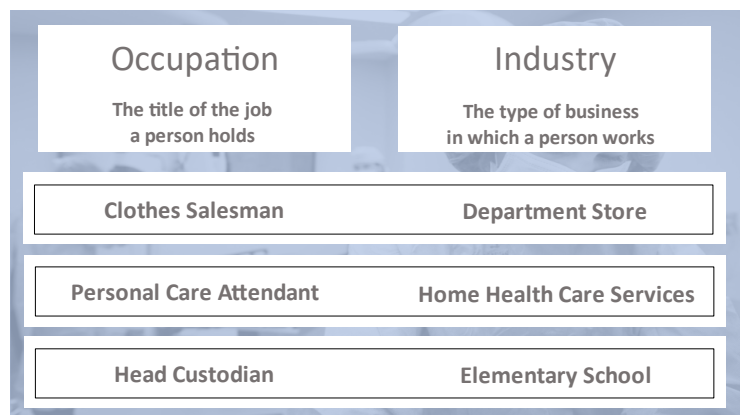
Recognizing that the work people do impacts their health, collecting employment-related data is useful to inform efforts to protect worker health and safety. The COVID-19 pandemic highlighted the value of collecting information about workers' industry and occupation in order to control the spread of an infectious disease and potentially identify workplaces at risk for outbreaks. As such, it is essential to engage public health practitioners and others to enhance collection and use of employment-related data.

The Challenge: Collection and use of employment-related information for cases of infectious disease

Standardizing the questions and instructions for collecting occupation and industry data helps to ensure that data is collected in a uniform manner across jurisdictions. Using standardized coding structures (e.g., Standard Occupational Classification System) to categorize the data allows for comparisons across jurisdictions.

The Response

The Massachusetts Department of Public Health's (MDPH) Occupational Health Surveillance Program (OHSP) partnered with MDPH's Division of Surveillance, Analytics, and Informatics (DSAI) to enhance the collection and use of occupation and industry data for individuals with COVID-19 in the Massachusetts Virtual Epidemiology Network (MAVEN), the state's web-based surveillance and case management system for infectious disease. This builds on earlier collaborative efforts to improve collection of occupation data for individuals diagnosed with infectious diseases.



Occupation The title of the job a person holds	Industry The type of business in which a person works
Clothes Salesman	Department Store
Personal Care Attendant	Home Health Care Services
Head Custodian	Elementary School

As a first step towards assessing its utility, data from MAVEN for the first 21 months of the pandemic were coded and evaluated for completeness. Among working-age cases of COVID-19 (ages 16-70), more than 40% contained occupation information. In addition, more than 38% of records contained employer name, which was used as a proxy to determine industry. NIOCCS (NIOSH Industry and Occupation Computerized Coding System) was used to assign standardized codes to this occupation and industry information.

To inform training for MAVEN users on how to collect employment-related variables and improve data entry, we wanted to first understand existing practices and barriers in data collection. OHSP surveyed MAVEN users on this topic in the fall of 2021 and provided training to MAVEN users that described the difference between industry and occupation as well as methods to gather this information.

The Impact

This collaboration between OHSP and DSAI led to two critical changes in 2022: occupation was codified in surveillance requirements ([105 CMR 300.00: Reportable diseases, surveillance, and isolation and quarantine requirements](#)) as a specific demographic variable to be collected, and industry was included as a new variable to be collected in MAVEN. This project has resulted in additional collaboration between programs within MDPH and an opportunity to integrate occupational health surveillance into mainstream public health. It has elevated the importance of collecting and using employment-related information for better examination of disease clusters and targeted prevention activities.

For more information, visit the Occupational Health Surveillance Program (<https://www.mass.gov/orgs/occupational-health-surveillance-program>) **or contact Angela Laramie** (angela.laramie@mass.gov).