

Injury, Chronic Diseases

Illinois Department of Public Health, Office of Health Promotion, Chronic Disease Division

Springfield, Illinois

Assignment Description

The Fellow will be primarily placed in the Springfield office of the IDPH OHPm, Division of Chronic Disease. The OHPm is one of six programmatic offices with IDPH, with a Deputy Director who reports directly to the IDPH Director. OHPm houses four divisions: the Division of Chronic Disease, the Division of Oral Health, the Division of Health Assessment and Screening, and the Division of Medical Cannabis. These divisions work together closely and are united by a common vision and mission. The Office encompasses a wide variety of programs in areas ranging from Alzheimer's disease to violence prevention.

The Office of Health Promotion is dedicated to promoting healthier and safer lifestyles through education, information and services. Beginning almost from the moment of birth, and continuing throughout the life span, Office of Health Promotion programs play important roles in assessing the health of Illinois residents, encouraging healthy lifestyles, and providing information, resources, and referrals to those seeking to improve their health or to battle chronic disease and associated co-morbidities.

OHPM is a co-administrator of the state PHHS Block Grant, which funds a wide array of public health programs and initiatives, including: asthma education initiatives, newborn hearing and genetic/metabolic screening, services for children with special healthcare needs, and funding of case management services through the Illinois Department of Human Services. In addition, the Division of Chronic Disease received federal funding to administer numerous programs; tobacco control, asthma, injury/violence, diabetes, heart disease/stroke, school health, and cancer prevention and control.

Secondarily, the Fellow will work closely with the Behavioral Risk Factor Surveillance System (BRFSS) program as well as the Division of Patient Safety and Quality within the IDPH. The purpose of BRFSS is to conduct surveillance on health-related risk behaviors, chronic health conditions, and use of preventive services and serves as the primary mechanism of surveillance for chronic disease prevention and control. The Division of Patient Safety and Quality promotes health care transparency and is responsible for developing and implementing programs to collect and report health care provider data for improving the quality and value of health care services delivered to Illinois residents. The Division also evaluates how local and national patient safety and quality standards will improve patient safety and quality in Illinois.

Day-to-Day Activities

The Fellow will function as an entry-level epidemiologist supporting chronic disease prevention and control programs and policies in Illinois and would be closely integrated into the work of the division. This would entail working with internal programs and supporting other Division of Chronic Disease initiatives with relevant partners in other IDPH divisions, other state agencies, and external partners. Broadly, the day-to-day activities of the Fellow will include functions related to needs assessment, program evaluation, disease surveillance, and data infrastructure building. Supporting these functions within OHPm would include many opportunities for data analysis, survey development, quality improvement support, data linkage, and database design/development. There are opportunities for the Fellow to be involved in a diverse array of projects and to select projects that will enhance their epidemiologic skills and further their professional development. Specifically, day-to-day functions of the Fellow will include:

- Attend weekly progress meeting with mentors.
- Attend quarterly Division of Chronic Disease program meetings.
- Attend monthly phone meetings of the CDC Epidemiology and Surveillance Branch (ESB) Field Assignee Epidemiology team.
- Attend bi-monthly meetings of the IDPH Chicago office epidemiology group.
- Participate in state workgroup and advisory committee meetings, such as the Illinois Partnership for Safety, Chronic Disease (Diabetes) Strategic Planning Steering Committee, HFS Quality Collaborative, and State Health Improvement Plan Implementation committee.
- Choose one or more epidemiologic projects and follow them from development to investigation to data collection to analysis to report or manuscript completion.
- Develop skills in indicator development, data management, database linkage, GIS mapping, epidemiologic methods, and evidence-based public health.
- Create data products for a wide range of lay and professional audiences.
- Make presentations in various settings, including learning sessions at DPH, external partner meetings, and at scientific conferences.
- Participate in evidence-based policy development and implementation.
- Identify partnership opportunities with other offices and programs within IDPH.
- Support performance measure analysis and grant reporting requirements for the CDC core injury and violence grant program.

Potential Projects

Surveillance State-Level Chronic Disease Morbidity Surveillance Activity

Multiple stakeholders utilize the Illinois Behavioral Risk Factor Surveillance System (BRFSS) website (<http://www.idph.state.il.us/brfss/>) to examine multiple chronic health conditions, health-related risk behaviors and demographic/geographic characteristics at the state and county-level. In addition, health departments and other groups use BRFSS data to track state and local health objectives, plan health programs, implement disease prevention and health promotion activities, and monitor trends. The chronic disease division produces additional analysis, briefings, burden updates, and legislative reports to further examine co-occurring conditions and risk factors. However, these reports are not accessible through the interactive website and the division does not have a system in place to make surveillance of co-occurring chronic conditions and risk factors routine or systematic. The Fellow will develop the procedures and methodology to conduct ongoing, annual surveillance of chronic diseases and associated risk factors and assess changes over time in specific conditions of interest. The primary data sources include BRFSS, vital records, hospital discharge, emergency department visits, and other state chronic disease morbidity review findings. Ideally, the Fellow will initiate a pilot project starting with the Injury program (e.g. develop standard and routine surveillance reports to show impact on decreasing motor vehicle crashes and alcohol use) that can be replicated across other chronic disease programs. The Fellow will also create surveillance reports that summarize the methods, analysis and findings, and present these findings using various mediums (e.g. social media, standard reports, presentations, etc.) to interested stakeholders. Stakeholders include but are not limited to the following: Illinois asthma partnership, the Illinois cancer partnership, the state diabetes coalition, and the Illinois partnership for safety.

Surveillance Evaluation of the Injury Surveillance System Evaluation

The chronic disease division has recently completed an Illinois Injury surveillance system feasibility assessment. A previous intern assessed the key components of injury surveillance systems by surveying other states and making recommendations for Illinois. One of the key barriers identified was the cost implications of creating a comprehensive and sophisticated, query-able surveillance system. As such, Illinois seeks to identify and outline where and how to access different data sources whereby a simplified query-to-output process can be created. Additionally, program staff have completed a scan of frequently used data indicators by deploying an assessment tool (from the Safe States Alliance) to all stakeholders. The Safe States Alliance, a non-profit organization of public health injury professionals, recommends states monitor a minimum of 14 injuries and injury risk factors, using 11 recommended datasets. Currently, the division is not able to meet these recommendations due to barriers in infrastructure and standardized processes. As such, program staff and partners have to rely on fragmented data from other websites that is often not comparable.

(<http://www.idph.state.il.us/brfss/> , <https://iquery.illinois.gov/iquery/> ,

<http://healthcarereportcard.illinois.gov/maps> , and <http://app.idph.state.il.us/emsrpt/form-hospitalization.asp>).

The Fellow will engage in an evaluation of the current surveillance capabilities surrounding the Safe States Alliance's recommendations by assessing the timeliness, validity, and extent of measures available to Illinois at different levels of geographies. Assessing the feasibility of creating an injury surveillance system has yet to undergo a comprehensive evaluation to identify the location of the data (including describing the data stewards and data request process), the timeliness of the data, the quality of the data, or the usefulness of the data and there is potential when it comes to assessing and reviewing system components. The final product from the recommendations generated by the Fellow will result in a website to serve as a surveillance landing page for the 14 injuries and injury risk factors states are recommended to monitor. Additionally, the evaluation will inform the program and partners on how to better capitalize on existing resources, improve data quality, and analyze/use the data in meaningful ways.

Major Project Automation and Dissemination of Surveillance Reporting (Local / County Level)

Local Health Departments in Illinois are required to take part in the Illinois Project for Local Assessment of Needs (IPLAN) process (<http://app.idph.state.il.us/>). The division often receives request from local health departments for county-level injury and chronic disease data to further support their strategic initiatives. Applications currently available include tools for looking into conditions and risk factors specifically, but the ability to produce a county-level report with all the injury types or chronic disease data isn't possible. At a recent Safe States Alliance meeting, Illinois learned about the automation of surveillance communication for injury data in North Carolina using SAS output and excel formulas and would like to replicate the process here.

The Fellow will analyze hospital discharge data (inpatient and outpatient) at the county level to produce age-adjusted rates, describe relevant disparities, and compare the county with the state for the nine major injury types. The Fellow will then create a standard report for each county that summarizes the data for distribution to professional and community partners working on the IPLAN. As time allows, the Fellow will explore a similar process with BRFSS and other chronic disease indicators.

Additional Project Enhance collaboration for diabetes quality standards and reporting

IDPH is enhancing engagement efforts across health care systems in Illinois to support transparency and translation of quality measures specific to diabetes prevention and control. Currently, our sister agency, Healthcare and Family Services, is working with state health plans to develop standardized and informative consumer facing report cards. In addition, the Office of Patient Safety and Quality publishes hospital report cards to meet requirements under IL Public Act 093-0563. As such, there is opportunity to further strengthen these partnerships and expand the scope of data being reviewed and reports being derived that would align patient self-management goals, provider treatment goals, experience and cost of care, and health outcomes for diabetes. This type of collaborative effort would

lay the groundwork for the development of a state-wide diabetes quality collaborative to increase transparency and encourage data sharing across systems and stakeholder groups.

The Fellow will work the CDC Epidemiologist Field Assignee (secondary mentor) to 1) identify diabetes quality measures, tools and processes used to meet national reporting requirements in at least five multi-sector organizations, 2) develop and communicate a set of recommendations around diabetes quality standards, tools and processes to a shared quality network to foster cross-sector collaboration, and 3) complete a feasibility assessment for a state-wide diabetes quality collaborative that would increase transparency and encourage data sharing. In addition, findings from this project would be shared across other chronic disease program areas for the purposes of expanding the scope of the quality collaborative beyond diabetes prevention and control.

Additional Opioid Response Assessment Project

The State of Illinois recently released an Opioid Action Plan that is a call to action to reduce opioid-related deaths by 44% in three years. The plan focuses on prevention, treatment and recovery, and response (averting overdose deaths). Naloxone is a medication designed to rapidly reverse opioid overdose. Working in partnership with the School Health Program, the Fellow will assess the use of Naloxone, as well as the perceived need for and barriers to Naloxone access in school settings. Such an assessment would provide valuable information on the acceptability of Naloxone access at schools, and identify potential methods for intervention.

Preparedness Role

To gain a background in basic principles of emergency preparedness, the Fellow will complete relevant National Incident Management System (NIMS) trainings through the Federal Emergency Management Agency (FEMA). The Fellow will also have an opportunity to participate in monthly deployment calls (with the secondary mentor) whereby he/she will learn about “active” national emergency response operations and will gain a better understanding of communications, logistics, and other response opportunities. The Fellow will have the opportunity to provide input and expertise to emergency preparedness activities at IDPH as they relate to individuals managing chronic conditions. Such activities may include: participating in task forces implementing policies affecting preparedness among populations with chronic diseases (e.g. diabetes, heart disease, asthma, etc.), advising OHPm about how to include population-sensitive preparedness into office programs, and working with the Illinois Emergency Medical Services on provider resources related to emergency medical care or disaster preparedness among vulnerable populations. There will also be the opportunity to collaborate with other IDPH divisions and offices to participate in an outbreak investigation, emergency responder drills, and contributing to “hot wash” summaries that evaluate IDPH’s performance in responding to outbreaks and emergency situations (since the primary mentor is heavily engaged in these activities).

Additional Activities

There are a myriad of opportunities for the Fellow to be involved in other projects that align with their interests and professional development goals. This may include:

- Analysis and mapping of indicators related to the Division of Chronic Disease priorities.
- Analysis of BRFSS data on a topic of interest to the Fellow.
- Analysis of vital record and hospital discharge data related to diabetes, heart disease/stroke, injury or cancer deaths, hospitalizations, and ED visits.
- Collaborating with the Illinois Pharmacists Association and Department of Healthcare and Family Services on medication adherence projects.
- Chronic Disease policy analysis and development of policy briefs.
- Dr Layden, as the State Epidemiologist, would help to identify outbreak investigations that are of interest, and in line with the goals of this Fellow's assignment. Such examples may include outbreaks in school settings, or among individuals with certain chronic conditions.

Mentors

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| Primary | Jennifer Layden MD, PhD Chief Medical Officer and State Epidemiologist |
| Secondary | Janae Price MPH CDC Epidemiologist and Field Assignee to IDPH |