Oakland County Health and Human Services

Assignment location:
Pontiac, MI

Oakland County Health and Human Services
Health Division

Primary Mentor: Lauren Fink, MPH
Epidemiologist
Oakland County Health Division

Secondary Mentor: Carrie Hribar, MA
Planning and Evaluation Supervisor
Oakland County Health Division

Work Environment: Hybrid

Assignment Description

Agency Description:
Oakland County Health Division has over 400 dedicated employees with a wide variety of professional disciplines, including epidemiologists, registered dietitians, health educators, social workers, sanitarians, physicians, and registered nurses. OCHD staff work in over 40+ programs providing health promotion and chronic disease prevention, family support, communicable disease detection, prevention, and treatment services. OCHD is nationally accredited, earning its 5-year accreditation status from the Public Health Accreditation Board (PHAB) in 2021. OCHD’s last two strategic plans have had strategic priorities focused on equity, data, and innovation, and its current strategic plan includes plans to develop a data team and data standards for the agency.

OCHD facilitates Energizing Connections for Healthier Oakland (ECHO), a health improvement initiative that was formed in 2014 and is overseen by a cross-sector steering committee. ECHO conducts community-driven, comprehensive health assessment and health improvement plan that addresses pressing health issues in Oakland County. ECHO also addresses health equity by gathering indicators on health disparities and inequities and focusing primary data collection efforts in six cities that experience more disparities. OCHD places a large emphasis on collaboration and partner engagement, and convenes more than 14 different coalitions, partnerships, workgroups, and subcommittees to align expertise and resources to address complex health issues in the community.
Oakland County is the second most populated county in Michigan, with over 1,257,584 residents. Oakland County prides itself on being a great place to live, work, and play, but when you look closer, not all residents have the same opportunities for good health and well-being. There are neighborhoods in Pontiac where the average life expectancy is only 66 or in Southfield where it is only 72, while a neighborhood in Troy that is just 10 miles away has an average life expectancy of 86 (National Center for Health Statistics, 2018). That’s a 14 to 20-year difference in life expectancy based on where you live in our county borders. Oakland County Health Division (OCHD) is committed to health equity and ensuring everyone has a fair opportunity to be healthy. OCHD believes that our role in fostering health equity is to examine and track differences in health outcomes among Oakland County residents, dig deeper into the causes of these differences, and eliminate barriers causing inequities.

**Describe Statistical and Data Analysis Support, Such as Databases, Software, and Surveillance Systems Available to the Fellow:**

The fellow will have access to the following databases (among others):

- Michigan Disease Surveillance System (MDSS), used for case investigation and surveillance of all communicable diseases as well as animal bites. They can export data to be used for outbreak investigations, quarterly reports, etc.

- Michigan Syndromic Surveillance System (MSSS) which has chief complaint and some demographic data from urgent care and ER visits

- InSight, Oakland County’s EMR, which has data on patients that we care for in our various clinics

- Michigan Care Improvement Registry (MCIR), Michigan's immunization database

The fellow will have access to the following programs, web-based applications, and software:

- R

- Excel

- NVivo (for qualitative data)

- MySidewalk (for creating reports, maps, data visualizations)

- ArcGIS (mapping)

- Qualtrics (survey software)

**Any additional information about the placement:**

Since COVID-19, many of OCHD’s employees have adopted a hybrid work schedule, and this fellow will have the same opportunity. The fellow will have access to dedicated space and resources in the office.

**Describe the Preferred Background and Skills the Ideal Fellow For This Site Would Have:**

Desired skills include:

- Coding in R

- Data visualization and data communication
- ArcGIS (and/or producing maps and doing other GIS work in R)
- Experience producing automated reports
- Experience creating dashboards

Additional skills that would be preferred:
- Survey development and survey data analysis
- Project Management

It is also important to us that the fellow have experience, or strong interest, in applying a health equity lens to all aspects of their work.

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**Projects**

**Project 1 Title: Automated Reports and Dashboards for Communicable Diseases**

*Project objectives and expected deliverables:* The fellow would work with the Communicable Disease unit to automate and standardize reports and processes, including:

- Update existing reporting procedures with more streamlined and automated processes. Examples include a regular flu report, quarterly communicable disease summary, and generating COVID-19 data for dashboard updates.

- Develop public and internal dashboards for diseases beyond COVID-19, for example a flu and/or RSV dashboard which may utilize lab and syndromic surveillance data.

- Conduct process improvement activities for communicable disease reporting in schools, to establish a process that is intuitive and low-burden for school officials while generating high quality, useful data for the unit to assess trends related to school illnesses.

*Expected public health impact from this project:* By automating reports that currently take a large amount of time, epidemiologists will have more time to put toward interpreting the data and translating it into evidence-based recommendations. Quicker reporting will generate more timely insights to identify potential outbreaks or diseases of concern. Enhanced school reporting procedures will allow OCHD to tailor recommendations to schools, improving the health of students and promoting health equity.

**Project 2 Title: Development of Cross-Sector Data Team Protocols and Standards**

*Project objectives and expected deliverables:* As part of our strategic planning initiatives, OCHD is working to establish a cross-sector data team that provides support on the collection, use, and presentation of data across the department. Specific objectives include:
- Conduct a "data audit" to understand how data is currently being collected, used, and presented by units across the department.

- Conduct a needs assessment to understand unmet data-related needs of units and identify how a data team could help address these needs.

- Establish a plan of work, staffing plan, and timeline for the data team.

- Establish a process by which units can request help from the data team.

- Research and make recommendations regarding best practices to work towards the establishment of unified data-related standards across the department.

- Provide assistance as requested on data-related projects.

- Provide trainings to build data capacity among staff across the department.

- The data team will also work with academic partners when appropriate, e.g. to conduct research or engage students.

The fellow will be a key part of the development of this team and its protocols and standards.

Expected public health impact from this project: By better using data, OCHD will better understand and meet the needs of our community. The data team will support translating data into evidence-based recommendations and the monitoring and evaluation of programs and the measurement of impact and "success". This team will promote cross-sector collaboration and reduce duplication of effort and silos, allowing OCHD to identify and address gaps in the public health system, and ensure that all data-related projects include a health equity lens.

Project 3 Title: Health Equity Reports

Project objectives and expected deliverables: Working with partners from the data team and relevant OCHD programs, the fellow will produce a series of epidemiological reports on timely public health issues with an emphasis on health equity. The reports will be used internally to help guide department activities and externally to inform the community about health disparities. The fellow will interpret data and present evidence-based recommendations to address identified disparities, and share best practices identified from other jurisdictions, academic settings, etc. that are relevant to the topics being discussed. Finally, the fellow will work with academic partners when appropriate to further investigate issues related to health equity.

Expected public health impact from this project: This project will inform strategic planning processes of OCHD and partner organizations to ensure health equity is understood and prioritized. Health equity reports will inform community members and community partners about health inequities in the county and potential ways to promote equity. It will allow OCHD to tailor interventions to meet the needs of the community, leverage lessons learned from COVID-19 response to ensure health equity considerations are prioritized from the beginning of all public health emergency response or emerging issue initiatives, and monitor trends to more quickly identify disparities and other health equity-related issues.