

Olmsted County Pilots a Regional Population Health Data Hub to Improve Data Accessibility

Authors: Gelila Tamrat, NACCHO; Sara Black, NACCHO; Reema Mistry, ASTHO; Christina Severin, ASTHO

Background

Historically, Olmsted County and other local counties in southeast Minnesota have faced barriers to accessing timely and actionable public health data, including limited data analytics workforce capacity, lack of data-sharing agreements (DSAs), and misaligned data suppression standards. To address these challenges, Olmsted County Public Health Services (OCPHS) piloted a regional population data hub, in partnership with the Minnesota Department of Health (MDH) and 10 local health departments (LHDs). OCPHS procured resources to develop a regional data-sharing platform, expanded their epidemiology team, and pursued DSAs. As a result, they gained access to critical data that supports informed decision-making and tailored interventions at the local level.

“Our partners at MDH have been pretty incredible in terms of helping us make this happen for our local agencies... they're willing to try different [data-sharing] models.”
– Tina Jordahl, Program Manager, OCPHS

Developing a Regional Population Health Data Hub

With financial support from the [Minnesota legislature](#) in 2021, OCPHS collaborated with MDH and its regional counterparts to develop a regional population health data hub for smaller LHDs to access community-level public health data. OCPHS maintains the hub by managing data from the state, regional partners, and 10 LHDs, and creating data dashboards to support southeast Minnesota counties’ population health data needs.

This effort involved building and expanding relationships with MDH unit-specific epidemiologists, working closely with public health system consultants at MDH, and raising awareness of the need for sustained data analytics workforce support. Following the initiative’s success, OCPHS plans to engage with state and local leaders to identify funding sources that can sustain the hub beyond the pilot funding cycle.

Promoting Data Accessibility through Strategic Partnerships and Agreements

MDH’s Center for Public Health Practice supports [public health system consultants](#), who offer technical assistance and consultation services to strengthen public health infrastructure across Minnesota. The consultant for the southeast region of the state was crucial in linking state and local staff to advance the development of the regional population health data hub. They helped triage and expedite requests from OCPHS by identifying the right points of contact for datasets and legal counsel within MDH.

The collaboration of MDH, OCPHS, and participating LHDs facilitated the development of DSAs, which allowed for proper data flow and enabled OCPHS to request data from MDH on behalf of participating counties, reducing the need for each county to request data. It also helped OCPHS to become the first county in the state to adopt [CDC’s ESSENCE tool](#) to monitor hospital visits for syndromic surveillance across Minnesota and neighboring states, better enabling LHDs to address the needs of communities residing along state borders.

Hiring Strategies for the Data Analytics Workforce

OCPHS focused on hiring staff to support the regional population health data hub with data expertise, strong communication skills, and a particular interest in population health and social determinants of health.

OCPHS created two permanent epidemiologist positions to promote sustainability for that position in the future. To expand their hiring pool, OCPHS relied on Olmsted County’s updated remote work policies following the COVID-19 pandemic when many shifted to remote or hybrid work. They also invited leaders from partner counties to help vet candidates who could support other LHDs’ needs.

“Just hiring an epidemiologist or a data person doesn’t necessarily solve your issues. They have to have the right infrastructure built around them with the right tools...”
– Meaghan Sherden, Associate Director, OCPHS

Advancing Equity Through Data Accessibility

“We want to be able to give rural communities the same foundation and data support and data to drive their programs as some of the more urban counties.”

– Jenny Passer, Epidemiologist, OCPHS

Due to data suppression rules, counties in southeast Minnesota had limited access to county-level data for certain statewide datasets. OCPHS worked with MDH to identify appropriate data suppression standards that supported access to community-level public health data and preserved privacy and security, and collaborated with the county IT department to develop the regional data hub with public-facing and internal dashboards, aligned with the required privacy and security standards. The public-facing dashboards show aggregate data with appropriate suppression standards at county, regional, and state levels. The internal dashboards provide complete data summaries and are protected with appropriate permissions and multi-factor authentication for LHD staff to perform population-level analysis.

Providing timely, granular data to participating counties allows LHD staff to develop tailored strategies to address emerging health issues promptly, bridging health equity gaps. OCPHS also integrates standard demographic data on race, sex, gender, and age into its dashboards, enabling regional LHDs to gain deeper insights into their communities and fine-tune equity-centered public health initiatives and interventions.

Implementation Considerations

- Foster collaborative relationships across state and local health departments to identify opportunities to share resources when advancing data-sharing efforts. Models in which larger LHDs support key data infrastructure needs on behalf of smaller LHDs may bolster data analytics/epidemiology capacity across multiple LHDs and streamline coordination with key partners at the state health department.
- Consider how state health department consultant or liaison roles charged with providing technical assistance to state or local partners may help facilitate key connections between state and local health department staff pursuing cross-jurisdictional data-sharing efforts.
- Invest in data analytics/epidemiology workforce strategies that help address specific needs related to population health and relationship building, along with technical skills. Cross-jurisdictional data-sharing efforts require staff with strong data analytics and communication skills, as they work with multidisciplinary leaders and across jurisdictions to inform community-based interventions.
- Collaborate proactively with legal and IT departments to identify data governance solutions and technical approaches to adhere to required privacy and security standards. Establishing DSAs is important, as it allows sharing of data within required legal guardrails. Similarly, IT leaders can identify technological solutions that support effective access to data.

This project and publication were supported by cooperative agreement number CDC-RFA-OT18-1802, OT18-1802, “National Partners Cooperative Agreement, Strengthening Public Health Systems and Services through National Partnerships to Improve and Protect the Nation’s Health,” funded by CDC. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of CDC or HHS.