



Improving data, improving public health

How a data-focused collaboration led by the Minnesota Electronic Health Record Consortium is uniting health care and public health.



The problem

Limited statewide data. Confusing communication. A lack of knowledge about priority populations. The COVID-19 pandemic laid bare how health care systems and public health agencies often operate in silos. Across the country, these challenges meant that leaders didn't always have up-to-date sociodemographic data on how the COVID-19 pandemic was impacting communities and where resources should be deployed. Health leaders in Minnesota refused to accept this.

The solution

In 2020, leaders in health from across the state created the **Minnesota Electronic Health Record Consortium** (MN EHR Consortium), a partnership that uses data to inform the real-time, changing needs of decision-makers. The benefits of data for public health surveillance and research are well known, but what sets the Consortium apart is how collaboration infuses the work from start to finish.



The mission



The Minnesota Electronic Health Record Consortium uses **data-driven collaboration between health care and public health** to inform policy and improve the health of communities.

The Consortium uses data to analyze trends and disparities across a variety of viral illnesses and vaccines in Minnesota beyond COVID-19. The Consortium also provides statewide data on over 30 physical health, mental health, and substance use conditions through its Health Trends Across Communities in Minnesota (HTAC) project. HTAC data estimates major chronic health conditions across the state, capturing 95 percent of Minnesotans. This timely, quantitative data complements other sources of public health data, such as the census and regular surveys.

Special thanks to the Minnesota Electronic Health Record Consortium's Governance Board for its expertise and feedback for this case study and for its ongoing leadership in this work. Thanks also to Wesley Hartman, Iyanrick John, and Jessica Nguyen at ChangeLab Solutions for doing research, conducting interviews, and drafting this case study.

How it works

The Consortium's model aggregates summary electronic health record data through a distributed data network in near real time.



Step 1: Participating health systems send detailed summary reports to a data coordination site. A vast array of organizations contribute data across topics. Reports are generated using centrally managed code that runs on each system's Observational Medical Outcomes Partnership (OMOP) common data model.



Step 2: Summary reports and data from partners are merged and analyzed through a system managed at the data coordinating site. Taken together, these inputs provide a comprehensive summary of health in the state.



Step 3: Disparities in health equity indicators are reported through public dashboards on the Consortium's website. This data-sharing model encourages intersystem collaboration over competition while prioritizing data privacy because no patient identifying data is ever shared.



Step 4: Public health professionals, policymakers, and researchers use this data to identify what communities need, where resources might best be used, and what policies could improve the health of everyday Minnesotans.

Interested in doing this work in your own community? First, consider which partners would be necessary to create your own Consortium model and bring them together around a shared priority, such as an urgent health issue. Educate them about the work of the Consortium to generate energy and create a shared vision and mission. Discuss which resources and information live with which partners and identify whether the barriers to data sharing are technological, regulatory, financial, or related to lack of buy-in. Then use the successful work of the Consortium to tackle those barriers together.

And of course, head to CommonHealthCoalition.org for more examples and resources on how health care and public health can work together to improve outcomes.

Tracking the tangible benefits



A better understanding of communities.

Because of the Consortium, partners can use data to see how communities respond to interventions. For example, one [analysis](#) found that while Minnesota vaccinated half of Asian and Native Hawaiian and Pacific Islander young adults within five months, it took roughly twice as long to vaccinate half of Latino, white, and Black young adults, and Minnesota did not successfully vaccinate half of American Indian and Alaska Native young adults by the end of 2022. The robust data can inform future public health emergencies and outreach to specific communities.



A more accurate approach to tracking health trends.

Consortium data has demonstrated moderate increases in opioid-involved hospital and emergency room visits in Hennepin County, which includes Minneapolis, from 2021 to 2024. Analysis indicated that the change in opioid-related visits was not consistent across racial and ethnic groups. This level of detail allows health care systems to better address the needs of patient populations and for public health to tailor interventions to the right communities.



A faster way to get services to the people who need them.

In an emergency, services need to be delivered expeditiously, and this is only possible through expert data sharing and analysis. Thanks to the work of the Consortium, the Minnesota Department of Health was able to identify populations at risk of elevated COVID-19 cases or low testing access. This insight allowed health agencies to quickly set up testing sites in the right places, at the right time.



A more equitable approach to distributing resources.

When COVID-19 vaccines first became available in 2021, the Minnesota Department of Health did not have access to race and ethnicity data due to state privacy laws. Through a public-private partnership, the Consortium provided data on vaccination rates by race and ethnicity, language, and housing status, ensuring a more equitable distribution of vaccines.