

From COVID-19 to asthma: How sharing data supports health equity

Three Dallas organizations joined forces on equitable approaches to COVID-19 and chronic conditions.



Health inequity in Dallas

Dallas's Parkland Health—one of the largest public hospital systems in the U.S.—serves a patient population that experiences some of the greatest health inequities in the region, including large differences in life expectancy across zip codes and race. Parkland Health and Dallas County Health and Human Services (DCHHS) recognized these inequities even before the COVID-19 pandemic. In 2019, Parkland Health and DCHHS, along with community-based organizations, conducted a community health needs assessment that identified specific zip codes with higher rates of morbidity and mortality and lower levels of income, education, and employment. This assessment informed the ongoing partnership between Parkland Health, DCHHS, and the Parkland Center for Clinical Innovation (PCCI), a nonprofit research institute affiliated with Parkland Health. This work has created an environment where health care, public health, and other stakeholders can better deliver data-informed care and services to the Dallas County population and serves as a model for future collaboration that is applicable across the state and country.

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Through innovative **data sharing** and **partnership agreements**, Parkland Health, DCHHS, and PCCI are working together to achieve joint health outcome goals and advance health equity. Using memorandums of understanding (MOUs) and business associate agreements, these entities established a **collaborative, automated system of sharing data**, which laid the groundwork for a more effective COVID-19 response.

Partnership in action: COVID-19

Thanks to insights from the 2019 community health needs assessment, when the COVID-19 pandemic hit, Parkland Health, DCHHS, and PCCI used their partnership to share data and effectively coordinate public health and clinical interventions like contact tracing and equitable vaccine distribution.

DCHHS shared electronic lab reporting, electronic case reporting, and contact tracing data, and Parkland Health contributed patient data. Taken together, this data—as well as additional data from the CDC, Census Bureau, Texas Demographic Center, and the Dallas-Fort Worth Hospital Council Foundation—enabled health leaders to better understand the situation in Dallas and ultimately informed public health and clinical interventions.

To augment COVID-19 contact tracing, Parkland Health texted surveys to all COVID-19 positive individuals on behalf of DCHHS to determine close contacts and identify possible food and health insecurities. This data allowed Parkland Health to automatically email and/or text identified close contacts to recommend isolation and monitoring of symptoms. It enabled the Parkland and DCHHS teams to assist with any identified food insecurity in partnership with a community food pantry. The data also helped PCCI develop geomaps and hotspots to aid city and county leaders in planning mobile testing sites and vaccination vans.

The partnership resulted in PCCI's creation of three indexes using shared data to identify target areas for testing, education, and equitable distribution of vaccines and care:



The **Proximity Index** looked at an individual's closeness to COVID-19 cases. This index helped to screen 1.2 million encounters and 230,000 unique patients for COVID-19 risk and was awarded a patent in August 2024.



The **Vulnerability Index** identified the most at-risk populations. When COVID-19 vaccines became available, the Vulnerability Index was used to prioritize vaccine distribution. In the first 18 months of the vaccine rollout, more than half of all COVID-19 vaccines distributed by Parkland went to individuals living in neighborhoods with high socioeconomic needs and 75% went to patients from historically marginalized communities.



The **Community Vulnerability Compass** located block groups with the highest socioeconomic needs.

Evolving beyond COVID-19

Parkland Health, DCHHS, and PCCI have expanded the scope of their partnership, using COVID-19 as the foundation for collaboration to address other chronic conditions, including asthma, diabetes, and hypertension, with dual goals of increasing preventive care and providing diagnosis and treatment.



For example, the indexes allow leaders to identify risk and inequities to more efficiently respond to [asthma in Dallas County](#). This data also feeds into a community-facing dashboard, the [Pediatric Asthma Surveillance System](#), which can be used to predict pediatric asthma risk, identify the drivers of risk, and highlight geographic inequities for asthma.



The public dashboard helps create accountability and transparency. The data analysis also allows health care providers, community-based organizations, and researchers with more limited resources to make evidence-based decisions.



Ten hospital systems now report to DCHHS through electronic case reporting, fostering a culture of collaboration in Dallas. As a result, Parkland Health provides real-time data on COVID-19 and 56 other reportable diseases.

Interested in doing this work in your own community?

Identify the various health systems and public health partners in your region and establish regular meetings (perhaps over breakfast!) with leadership to create a regular cadence of information exchange. Bring core partners together regularly to identify the various data systems held by each entity and identify mechanisms through which better data sharing would advance shared or aligned goals. Articulate equity-driven goals for health outcomes, and discuss each partner's assets and ability to advance progress on the outcomes. Consider participating in each other's CHNAs or state/community health improvement plans and working in partnership to address identified issues instead of doing so in parallel.

And, of course, join the Common Health Coalition! Head to [CommonHealthCoalition.org/resources](#) for examples, templates of MOUs and data sharing agreements, and resources on how health care and public health can work together to improve outcomes.