

DATA AND HEALTH OUTCOMES

Improving health and generating value.

In our everyday life we use our phones, computers, and other electronic devices. Our searches are tracked, our preferences are saved, and our steps are counted. We view our annual music choices and have applications for tracking meals. Data is at the center of all our activities. Data gives us insights into our lives and allows us to make changes for the better.

Within the healthcare industry, data has become an essential tool for improving health outcomes. A key area where data is helping is with those suffering from chronic illnesses. With around 60% of adults in the US suffering from chronic illnesses, data is essential for both treatment and identification. Of the 60%, 40% are suffering from additional chronic conditionsⁱ. Research has shown that identifying high risk patients leads to greater success in management of chronic conditions. Faster and more accurate identification leads to improved patient health and reduced costs to both the patient and insurance providerⁱⁱ.

Recently, the Covid-19 pandemic made this widely known to the general population through daily graphs and reports highlighting key risk indicators. As of right now, the CDC tracks over 120 diseases and conditions with the goal of protecting American healthⁱⁱⁱ. Information such as age, race, ethnicity, symptoms, and care received allow healthcare professionals to learn about those most at risk and the most effective treatment methods^{iv}. An example of this being used in practice is in Northwell Health. Data from 35,000 Northwell Health patients was built into an AI tool to assist healthcare workers with predicting outcomes and severity of Covid cases. The tool provides automatic updates and predictive analysis to give clinicians greater understandings of patient health which assists in more informed decisions. While this is a tool to improve Covid patient outcomes, it also has the capability to expand into further medical conditions^v.

Mobile devices have been used for informing patients of test results, appointments, prescriptions, and holding virtual visits with doctors. These provide more touchpoints for patients and providers, but also create opportunities for better patient self-management. Self-management by patients is a key factor in health outcomes. To improve the success of this, providing the right information in a clear and timely manner will increase the likelihood of healthier responses. As previously mentioned, data used in AI tools can assist clinicians with treatment. Tools cannot only be used by clinicians, but can also be used by patients. Patients that are informed or alerted of potential risks can change present habits or speak with their doctor earlier to develop a plan.

With the importance of data in healthcare clearer than ever, making that data usable is at the core. Digital data collection is constantly expanding through electronic health records, mobile devices, internal processes being digitalized, as well as many other sources. Putting this data into a usable format becomes ever more vital. Data coming from different sources is many times not in the same format and connections cannot be immediately made. Aligning format, understanding flow and assumptions, and establishing defined processes will allow you to take advantage of untapped value already possessed and provide a greater standard of service that will impact the lives of patients served.

Trexin Advisors have the experience gained from working with Clients and through research to understand your unique situation. By working together, we will take you from idea to creation.



This TIP was written by Tony Martin. Tony welcomes comments and discussion on this topic and can be reached at tony.martin@trexin.com.

ⁱ “How Managing Chronic Conditions Is Streamlined with Digital Technology.” www.healthcatalyst.com, 22 June 2022, www.healthcatalyst.com/insights/how-managing-chronic-conditions-is-streamlined-with-digital-technology.

ⁱⁱ McNemar, Erin. “Big Data Analytics Finding Gaps in Chronic Disease Management Care.” Analytics, 30 June 2021, healthitanalytics.com/news/big-data-analytics-finding-gaps-in-chronic-disease-management-care.

ⁱⁱⁱ CDC. “Coronavirus Disease 2019 (COVID-19) - Transmission.” Centers for Disease Control and Prevention, 9 Apr. 2020, www.cdc.gov/coronavirus/2019-ncov/covid-data/faq-surveillance.html.

^{iv} CDC. “Coronavirus Disease 2019 (COVID-19) - Transmission.” Centers for Disease Control and Prevention, 9 Apr. 2020, www.cdc.gov/coronavirus/2019-ncov/covid-data/faq-surveillance.html.

^v Gliadkovskaya, Anastassia. “Northwell Health’s Research Arm Studied 35,000 COVID Patients for Years. Using Basic Data, It Built an AI Tool to Predict Outcomes.” Fierce Healthcare, 15 Nov. 2022, www.fiercehealthcare.com/health-tech/northwell-health-new-ai-model-can-predict-covid-19-outcomes.