Importance of Analytics in Mental Health

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With the overwhelming amount of data available in healthcare, analytics has increasingly become an important tool for organizations. Data analytics can help organizations make informed decisions and predict what may happen in the future. With the government's declaration of the opioid crisis as a public health emergency in 2017, the issues of mental health and substance abuse care delivery were thrust into the spotlight. So how can data analytics be used to improve the delivery of mental health services?

The prevalence of mental health disorders in the United States is staggering. According to the National Alliance on Mental Illness (NAMI), approximately one in five adults in the US, or 9.8 million people, experiences mental illness each year. In addition, serious mental illness costs the nation $193.2 billion in lost earnings per year, according to NAMI. Mental illness and substance abuse disorders have a significant impact on productivity, morbidity, and mortality. Data analytics are an important tool that can be used in mental health to address the opioid epidemic, enhance the quality of services, and increase access in rural areas.

Addressing the Opioid Epidemic

Opioid abuse and addiction has become a serious national crisis that is impacting public health as well as the country's social and economic welfare. According to the National Institute on Drug Abuse (NIDA), more than 115 people die each day of opioid overdose, and the total estimated economic burden of prescription opioid abuse is $78.5 billion per year, according to NIDA. Strategies are needed to combat the opioid epidemic and data analytics should be part of the strategy in reducing abuse of opioids. Analytics can be used to identify providers who prescribe a high percentage of opioids and identify pharmacies who fill a high percentage of opioid prescriptions. This information could also be used to identify areas where there are large social networks of individuals who are obtaining opioids. The Centers for Disease Control and Prevention (CDC) has been funding several analytics-based initiatives to help states fight the opioid crisis, using reporting and data analytics with three key programs.

The Prevention for States Program assists with data analytics for prescription drug management programs to improve use, access, and data availability, and evaluate prescribing patterns to address fraud, waste, and abuse and identify provider over-prescription.

The CDC's Data-Driven Prevention Initiative helps improve data collection and analysis of opioid use, abuse, and overdose, assesses how to change behaviors that lead to opioid abuse, and builds community-based prevention programs.

The Enhanced State Opioid Overdose Surveillance Program improves reporting of nonfatal opioid overdoses using surveillance of emergency departments and emergency medicine services, and improves reporting of fatal opioid overdoses. This funding is part of the Department of Health and Human Services' (HHS) five-point strategy to fight the opioid epidemic by improving access to prevention, treatment, and recovery services; targeting availability and distribution of overdose-reversing drugs; strengthening understanding of the crisis through better public health data and reporting; providing support for cutting-edge research on pain and addiction; and advancing better practices for pain management.

Enhancing Quality of Services

There has been a growing interest in enhancing mental health services through reliable quality and outcomes measures to ensure people with serious mental illnesses such as schizophrenia, bipolar disorder, and depressive disorder receive the support, treatment, and recovery they need. Data analytics can help support national and state mental health initiatives through evidence-based treatments. The Experience of Care and Health Outcomes Survey (ECHO) and National Inventory of Mental

Health Quality Measures are available to measure the improvements in mental and behavioral health, according to the Agency for Healthcare Research and Quality (AHRQ).

Separate surveys have been developed that address the unique needs of children. ECHO surveys are used to compare managed care organization (MCO) performances across plans. The child measures assess consumer experience with behavioral health, including those with special needs related to emotional illness, substance abuse, family problems, and developmental conditions. Identifying issues with children and adolescents through screenings and referrals to mental health services are essential for improved services and outcomes.

Value-based reimbursements are utilizing measures to incentivize providers to improve patient outcomes. For example, the Healthcare Effectiveness Data and Information Set for antidepressant medication management (AMM) is a performance-based measure that provides an opportunity for improvement in depression care by monitoring adherence, according to AHRQ. The ability to connect quality measures to clinical strategies is critical for achieving successful depression treatment outcomes.

AMM measure gaps offer an opportunity for patient-centered care teams to communicate with patients regarding barriers and behavior. Clinical discussions may include duration and side effects of medication to better improve adherence and outcomes. To drive the mental health quality improvement, a roadmap or framework is an essential tool that should include data interchange between health plans and behavioral health organizations. Data exchange helps to support clinical, quality, and patient experience measurements, thereby contributing to enhanced mental health outcomes.

Access Difficulties in Rural Communities

According to recent studies, an estimated 18.7 percent of residents in rural counties have a mental disorder, according to the Rural Health Information Hub. Compounding the need for mental health services, there is a corresponding shortage of mental health professionals in rural areas, leaving mental and behavioral health patients with little or no choices for science-based mental health services. Where care is available, patients can face higher costs for services. The use of data and trends can provide evidence of need and scientific support for rural mental health services. Providers, MCOs, and government agencies are struggling to find efficient ways to improve access in rural areas, according to the Substance Abuse and Mental Health Services Administration. Understanding rural populations by using data analytics can help organizations develop strategies aimed at availability, accessibility, affordability, and acceptability.

Geoplotting—using a geographic chart to visualize data—can help efficiently map clinical needs and organize provider travel to rural communities. The use of telemedicine may help to reduce the cost of mental health services by making it more affordable. Furthermore, telemedicine can be an effective method of delivering mental healthcare, which offers an alternative to patients who may feel the stigma and embarrassment of mental health sessions, which is often a barrier in rural communities.

Today, one of the driving strategies being used by organizations is coordinating services across the health and social system by integrating mental health with primary care. Assessing the ratio of the rural population to primary care and the ratio of the rural population to the number of mental health providers can help identify gaps that impact the ability to efficiently and effectively coordinate services.

Leveraging Analytics as a Tool

The use of analytics for improving the efficiency and effectiveness of service delivery is increasing in popularity across the healthcare field. With the current spotlight on the need to improve mental healthcare delivery, analytics are an important tool. Analytics can help address current prevalent issues, such as the opioid epidemic, enhance the quality of services, and address access problems in rural areas.

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