Enhanced Suicide Risk Screening Improves Safety and Outcomes for Patients at Risk

THE QUEEN'S HEALTH SYSTEMS

46.3-percentage-point increase in the number of patients receiving all suicide prevention bundle elements.

No patient who received care at Queen's **died by suicide within 72 hours of discharge** from the hospital.

PRODUCTS

- Health Catalyst® Data Operating System (DOS™)

EXECUTIVE SUMMARY

The Queen's Health System recognized that suicidality was increasing, with many patients presenting to the emergency department (ED) for help in a time of crisis. The organization needed a data-informed strategy to create a systemwide suicide prevention plan. It established a team to implement several best practices based on data from its analytics platform, including suicide risk screening. As a result of these data-informed improvements, Queen's has meaningfully improved patient safety and outcomes for patients at risk of suicide.

CRITICAL NEED FOR IMPROVED SUICIDE RISK SCREENING

Suicide is a leading cause of death in the U.S. Every year, more than 12.2 million adults think about suicide, 1.2 million attempt suicide, and over 45,000 people die by suicide.[1] Suicide is the third-leading cause of death for young people.[2] Queen's knew it had an opportunity to better identify and support its patients at risk of suicide.

SUICIDE RATES INCREASING IN HAWAII

Queen's recognized that anxiety, depression, and suicidality were increasing, with many patients presenting to the ED for help. More than 200 people in Hawaii died by suicide in the previous year, and the number of patients presenting with suicidal ideation continued to increase during the pandemic. The organization needed a data-informed plan to improve patient safety.

SUICIDE PREVENTION BUNDLE SAVES LIVES

Queen's established an interdisciplinary improvement team to develop a systemwide suicide prevention plan. The team was responsible for implementing the best practice suicide risk screening and patient care activities to improve patient safety, leveraging high-value data and analytics from the Health Catalyst® Data Operating System (DOS™) platform to monitor performance and evaluate opportunities for improvement.

The team included leaders, frontline staff in various roles, registered nurses (RNs), advanced registered nurse practitioners, and physicians. The team also included representatives from the ED, social work, behavioral health, performance improvement, and information technology and analytics from across The Queen's Health System and Queen's Clinically Integrated Physician Network.

The team reviewed the literature, electing to implement several best practices as part of its suicide prevention bundle. The bundle includes risk screening using the Columbia-Suicide Severity Rating Scale for all patients who present to the ED, evidence-based interventions to understand suicide risk and prevent suicide for patients with a high risk of suicide, and new telehealth offerings to ensure patients and frontline team members can access psychiatric care and social work support at every Queen's location.

Patients receive safe care while at Queen's. When a patient's suicide risk screening results indicate they are at high risk of suicide, care teams activate a suicide safety order set in the EHR. The order set includes an assessment of safety, a psych consult, a social work consult, placement in a private/psych room under constant observation, and a medical treatment plan for the patient's presenting problem and mental health needs. Physicians, RNs, and social workers collaborate to develop and implement individualized safety plans.

After this comprehensive assessment, some patients are eligible for safe discharge from the hospital. Queen's invests in ensuring patients are discharged to a safe location, performing a "warm handoff" to the patient's destination. Social workers connect with the patient's support person and assist patients who do not have housing to obtain placement or appropriate shelter. After the handoff, social workers reach out to discharged patients within 24 hours of discharge, seven days a week, connecting with the patient, reinforcing the patient's individualized safety plan, and asking if the patient has any questions.

ABOUT THE QUEEN'S HEALTH SYSTEMS

The Queen's Health System, a nonprofit mission-driven healthcare organization founded more than 160 years ago, includes four hospitals and 70 healthcare centers throughout Hawai'i. Queen Emma and King Kamehameha IV founded The Queen's Hospital in 1859 to address the healthcare needs of the people of Hawai'i during a time when epidemics plagued the island of O'ahu. Little did they know that their efforts would grow into the legacy it has become today. Queen's is the state's largest employer, with 10,000 caregivers, medical staff, and leadership, and is dedicated to improving the health of Native Hawaiians and all the people of Hawai'i.

> The Health Catalyst analytics platform gave us access to actionable data we can use for follow-up. We can quickly identify when patients don't receive the expected care, intervening to improve the process and care outcomes.

Todd Bedell, Manager of Operational Performance, Ambulatory
The Queen's Health System

Queen's uses the high-quality data and analytics from the Health Catalyst® Data Operating System (DOS™) platform to monitor and improve performance. The improvement team reviews data daily, immediately identifies gaps in processes, drills into the root causes contributing to those gaps, and then intervenes to improve performance and ensure patients are effectively screened for risk of suicide.

RESULTS

Queen's data-informed improvement efforts have meaningfully improved patient safety. In just one year, the organization achieved the following:

- **46.3-percentage-point increase** in the number of patients receiving all suicide prevention bundle elements.

- **No patient who received care** at Queen's **died by suicide within 72 hours of discharge** from the hospital.

WHAT'S NEXT

Queen's will continue its data-informed improvement efforts. In addition, the organization is implementing strategies to sustain its improvements. Next, it plans to improve the timeliness of post-discharge follow-up appointments. ◊

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> Our patients and their safety were at the center of our data-informed improvement efforts. We've improved care processes and patient safety at each of our care locations.
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> Star Ventura, RN, Performance Improvement Coordinator
> The Queen's Health System

REFERENCES

1. Facts about suicide. (2022). *Centers for Disease Control and Prevention.* Retrieved from https://www.cdc.gov/suicide/facts/index.html
2. Disparities in suicide. (2022). *Centers for Disease Control and Prevention.* Retrieved from https://www.cdc.gov/suicide/facts/disparities-in-suicide.html

ABOUT HEALTH CATALYST

Health Catalyst is a leading provider of data and analytics technology and services to healthcare organizations, committed to being the catalyst for massive, measurable, data-informed healthcare improvement. Our customers leverage our cloud-based data platform—powered by data from more than 100 million patient records, and encompassing trillions of facts—as well as our analytics software and professional services expertise to make data-informed decisions and realize measurable clinical, financial, and operational improvements. We envision a future in which all healthcare decisions are data informed.

Learn more at **www.healthcatalyst.com**, and follow us on **Twitter**, **LinkedIn**, and **Facebook**.