



Surveillance Success Stories

Centerstone of Tennessee

The Need for Data

With more than 180 behavioral health locations across five states, Centerstone is one of the nation's largest providers of prevention and treatment services for mental and substance use disorders—helping more than 150,000 clients per year address serious behavioral health problems such as addiction, depression, anxiety, and mental health crises. Centerstone TN served more than 60,000 patients and provided nearly a million services in fiscal year 2018 (July 1, 2017–June 30, 2018), and more than half of those were Medicare or Medicaid clients.

In 2012, Centerstone TN started a Zero Suicide initiative aimed at preventing suicide deaths by ensuring that all clients at risk for suicide are appropriately identified, treated and monitored. Staff knew that to be successful, they needed to collect more robust data on suicide deaths among clients. This information would be critical to setting objectives, taking action and tracking progress. Moreover, providing clinicians with this information would help increase buy-in for the initiative, allow Centerstone departments and providers to see up close how they were helping to save lives, and help promote the expansion of the initiative in the other states served by Centerstone.

Getting the Data

In order to track information related to suicide deaths among current clients, Centerstone TN had to first work to define which individuals to include as active clients in their data set. After reviewing internal procedures and consulting with other Centerstone locations to ensure consistency across sites, its analysts decided to focus on existing clients who had been seen in the past 90 days or who were scheduled to come in for an appointment.

Next, Centerstone TN needed a way to identify suicide deaths among these clients. The solution was an approach tested by Centerstone IN. All personnel, including clinicians and front desk staff, assist data collection by identifying

possible suicide deaths among clients and reporting this information to Centerstone's Quality Improvement (QI) Department. QI staff then reach out to the appropriate county medical examiner's office to obtain reports regarding the manner of death.

Analyzing the Data

Centerstone's QI staff analyze the data using a simple but effective approach: entering the information into Excel spreadsheets. Each spreadsheet lists the patients who died by suicide in the past 12 months, along with relevant data obtained from their death certificates and electronic health records, such as demographics, diagnosis, services provided, manner of death, and date of last appointment.

Using this information, Centerstone analysts calculate the number of suicides per month and the rate of suicide per 10,000 clients seen. They also review the information monthly to look for factors that may help them understand and prevent these deaths. These analyses support quality improvement activities, such as monitoring the percentage of clients who are being screened and assessed for suicide risk and the extent to which clients at risk are receiving timely services, including follow-up care.



Data Resources

Locating and Understanding Data for Suicide Prevention (online course): <http://training.sprc.org>

Zero Suicide Toolkit: <http://zerosuicide.sprc.org/>

Improving Data Collection across the Health Care System: <http://go.edc.org/Data2>

Effective Prevention: Behavioral Health Care: <http://www.sprc.org/settings/behavioral-health-care>

Centerstone Health System: <https://centerstone.org>

What Centerstone TN Learned

Centerstone reviews data on a monthly basis by averaging the suicide rate over a rolling 12-month interval. Using a rolling average makes it easier to quickly identify trends and interpret the data. Findings are discussed at monthly internal committee meetings that review adverse events within the health system and help identify and implement solutions.

For example, findings from January 2014 to January 2017 showed that:

- Patients who died by suicide ranged in age from 13 to 61 years.
- Most clients who died by suicide were men, although Centerstone sees more women overall.
- The methods of suicide used more often were firearms (40%), suffocation/hanging (27%), and overdose/poisoning (25%).

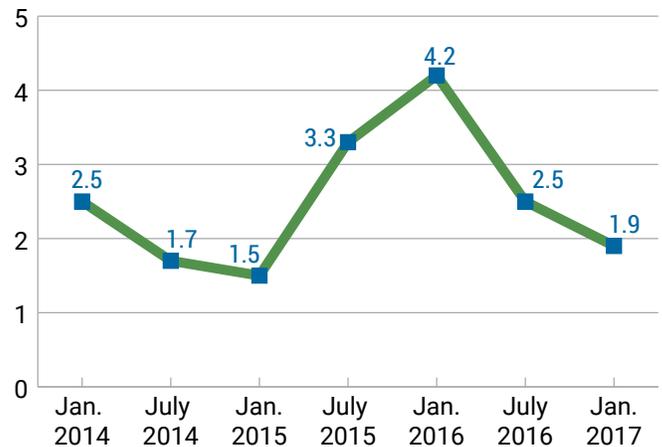
Data analysis has been invaluable to Centerstone TN in supporting quality improvement. Initially, Centerstone TN found a 64% reduction in suicide deaths from October 2012 to February 2015. However, through their continual data collection and analysis, QI staff detected an increase in deaths in the 12-month period between March 2015 and February 2016. Through further analysis, they found that almost half (47%) of these deaths were among patients coming in for brief (15-20 minute) medication checks, rather than appointments that included counseling.

In response, Centerstone TN developed a two-pronged approach. First, the health system developed a protocol for treating patients who preferred medication-only

"At first we saw a 64% reduction in suicide deaths. After this initial success, we noticed an uptick in suicide deaths and rapidly began an analysis. Because of the high level of attention we were paying to data, we were able to determine quickly what was causing this and did some nimble and rapid quality improvement to fix it."

— Becky Stoll, Centerstone of Tennessee

Figure 1. Annual Suicides per 10,000 Clients Seen
Rolling 12 Months January 2014–January 2017



appointments. Second, Centerstone TN created a guide for their medical providers to help them assess in what circumstances patients would be candidates for medication-only appointments. After these strategies were implemented, suicide deaths fell by 55% from May 2016 to May 2017.

What Comes Next

Centerstone TN will continue to apply findings from its data analysis to support patients who are at risk for suicide. When appropriate, Centerstone TN also shares these findings with partners, such as the TN Suicide Prevention Network, to support their suicide prevention efforts.

Currently, the health system is focusing on obtaining better data on suicidal ideation. To achieve this goal, Centerstone TN has enacted new screening, assessment and documentation protocols in which a suicidal ideation diagnostic code has been added to its EHR to facilitate more efficient tracking.

If you have questions or would like to learn more about how Centerstone TN created its surveillance networks, please contact:

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