



Injury Control Research Center
for Suicide Prevention

Broad-Based Assessment of Suicide Data and Suicide Prevention Services through the Colorado National Collaborative

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In the past decade, we have seen strong national- and local-level commitment to suicide prevention, improvements in our identification and use of evidence-based prevention approaches, and advances in our epidemiological capacity to identify prevention and intervention targets. Despite these advances, suicide rates have continued to rise.

Clearly, suicide is a complex social problem that requires a comprehensive solution. In Colorado, that solution is the creation of the Colorado National Collaborative (CNC), a public health approach using national, state, and local partners to align injury prevention efforts. While a full explanation of the history and work of the CNC deserves an article all its own (see <http://injuryprevention.bmj.com/content/early/2017/12/19/injuryprev-2017-042366> for more details), this post will focus on one of the CNC's first critical tasks: broad-based assessment. Specifically, we would like to highlight how a public-facing dashboard, combined with a scan of existing state- and county-level public health efforts, can create efficiencies in suicide prevention planning.



A Public Facing Dashboard

As a first step in broad-based assessment, Colorado vital statistics epidemiologists, Kirk Bol and Ethan Jamison, worked with data visualization specialist Cambria Brown to create an interactive suicide data dashboard. To do this, the team used data from Colorado's Violent Death Reporting System (CoVDRS), part of the National Violent Death Reporting System (NVDRS) maintained and funded by the Centers for Disease Control and Prevention (CDC; <https://www.cdc.gov/violenceprevention/nvdrs/index.html>). The NVDRS uses data collected from death certificates, coroner/medical examiner reports, and law enforcement reports, to paint a more complete picture of the risks, contributing factors, and trends of violent deaths. This unique public health surveillance system captures enhanced data on victim circumstances, toxicology, demographics, weapons used, and a multitude of other data points.

Colorado's epidemiology team placed geocoded residence data from the CoVDRS into Tableau Data Visualization Software (<https://www.tableau.com/>) to profile suicide data at the county, regional, and state levels. By focusing on count data and rate data, the dashboard could highlight areas in Colorado with the most suicide deaths, and the highest burden of deaths. The dashboard also highlights data elements that are well-aligned with CNC priority areas, including older adults, youth, veterans, those in contact with the legal system, and those employed in high-risk industries. The dashboard can be used by state and local suicide prevention planners to explore trends, burden, and circumstances of suicide deaths in Colorado. The dashboard is designed to allow the user to filter or manipulate data to explore specific subpopulations of interest. This pragmatic approach allows users to explore specific data questions and hypotheses, un-hindered by traditional static data tables. The Colorado Suicide Data Dashboard can be accessed at the CoVDRS page (<https://www.colorado.gov/pacific/cdphe/colorado-violent-death-reporting-system>).

An Environmental Scan of Existing Public Health Efforts

The second step in our broad-based assessment approach was to create an environmental scan of existing capacity, available services, and engagement readiness at the state level, and with 6 specific Colorado counties.

Participants in the scan were organizations, rather than individuals. Participant organizations included health systems, government agencies, faith communities, and community-based organizations doing work to prevent suicide, injury, child maltreatment, substance abuse, or interpersonal violence. A single participant from each organization was asked to provide information on the strategies, programs or practices that their organization implements or supports related to a variety of suicide prevention strategy categories, including building life skills, identifying and assisting those at risk, providing access to evidence-based care, reducing access to lethal means, and strengthening economic supports. For each category of strategies endorsed, participants were asked to identify which counties they served, which populations they served, how many people they served, the setting in which they provided services, the type(s) of resource supports received, and how long they expect the effort to be sustained. Participants were also asked to identify whether they collaborated with other agencies, which agencies they collaborated with, and whether they would be interested in exploring a partnership with the CNC.

The scan was rolled out in two phases. In Phase One, survey recipients were agencies funded through Colorado's Department of Public Health and the Environment and its partners. Phase One generally captured larger, well-funded agencies who provided services in multiple counties or statewide. In Phase Two, we contacted agencies directly from participating counties, enlisting the help of county leadership in identifying appropriate recipients. We expect to conclude our data collection efforts for Phase Two in the summer of 2018.

Next Steps

By overlaying existing prevention efforts and resources onto the geospatial map created by the CoVDRS data, we are hoping to explore gaps in prevention efforts. For example, if the geospatial map shows that men in the middle years are at significant risk for suicide in a particular county, but all existing resources are directed toward suicide prevention in youth, we might need to augment services for adults. While we expect that this process will be helpful for gap-identification, it has also helped the CNC build inroads in participating communities, offering counties a useful data dashboard and an inventory of information on existing county services.

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