Methodology

Suicide Care CoIIN Journey Stories

Seven healthcare systems share insights, successes, and lessons learned from a collaborative effort to improve suicide care.

This document is an appendix to the Suicide Care CoIIN Journey Stories available on the Zero Suicide Toolkit. The information and data about and from the seven healthcare organizations presented in the Journey Stories and this document were provided by those organizations.

This project was led by Zero Suicide Institute at EDC with funds and guidance from The Pew Charitable Trusts.

Follow the link below to access the stories.

Access the Journey Stories on the Zero Suicide Toolkit

Methodology Appendix

The Suicide Care Collaborative Improvement and Innovation Network (SC CoIIN) was developed to improve outcomes for people experiencing suicidal thoughts and/or behaviors. The SC CoIIN was designed to support hospitals and health systems to implement and expand suicide safer care for patients at risk for suicide.

The model for the SC CoIIN comes from the Institute for Healthcare Improvement's Breakthrough Series method[1] in which teams come together on a specific topic, such as suicide prevention, to identify a common aim, share information, and work toward collective improvement. Figure 1 describes the SC CoIIN model, which consists of convening subject matter and application experts, then gathering participants into learning sessions with a plan-do-study-act series (PDSAs) in between the learning sessions.

A PDSA cycle is a problem-solving model for improving a process or carrying out change. It consists of planning a change, implementing the change, observing the results, and acting on what is learned.

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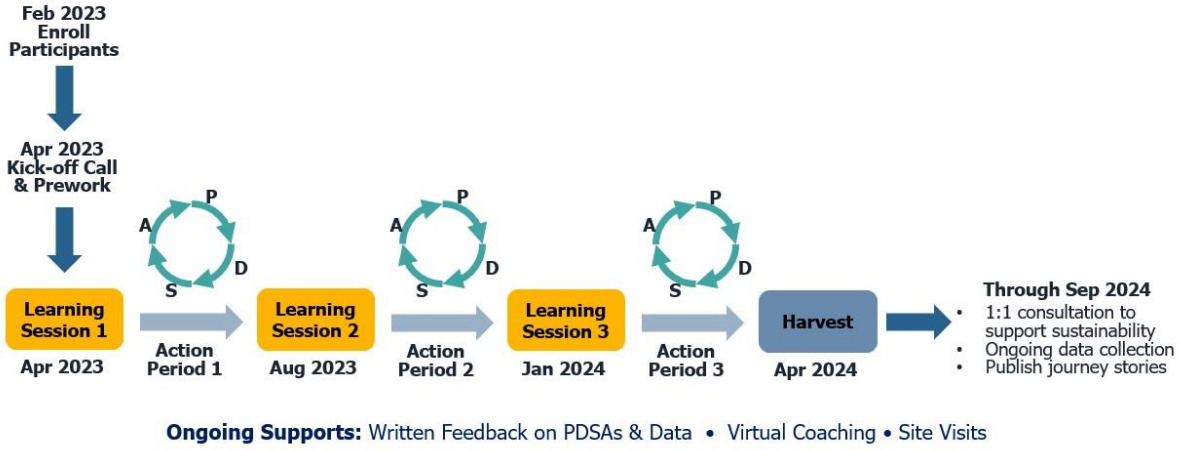
[1] Institute for Healthcare Improvement. (2003). *The breakthrough series: IHI's collaborative model for achieving breakthrough improvement* (IHI Innovation Series white paper). https://www.ihi.org/resources/white-papers/breakthrough-series-ihis-collaborative-model-achieving-breakthrough#downloads

Figure 1. Suicide Care Collaborative Improvement and Innovation Model



The Expert Convening

In October 2022, a two-part expert convening was conducted to bring together the best and most current thinking on implementing expanded suicide prevention and intervention in hospitals and health systems to inform the SC CoIIN theory of change. These 24 experts represented a diverse range of roles, experience, and background. This group included hospital administrators and leadership; behavioral health, medical, and nursing providers; peer specialists; researchers; individuals with lived experience; and those who support populations at greater risk for suicide, such as LGBTQ+ individuals, military personnel, veterans, and Indigenous peoples.

These convenings provided an opportunity for subject matter experts to reflect on the known evidence; contribute their own observations and experiences; and identify what practices, training, and policies are most effective in suicide care. They also identified specific strategies, interventions, policies, behaviors, etc., that have been proven to improve the quality, and to address the gaps in, suicide care within health care systems. Experts then assessed the gaps that exist between what evidence shows is most effective in suicide care and what is currently being implemented in practice.

Themes from these discussions were used to identify and form the basis for identifying the gaps that participating teams in the collaborative would work to close. Additionally, the themes were used to create a theory of change for how those teams would improve and plan for the specific changes that participating teams would test, implement, and spread.

Lastly, experts were asked to distinguish the most important outcomes to measure, the key steps in the suicide care process that should be tracked, and any potential unintended consequences. Their reflections informed the development of the measurement strategy that participating teams used to track progress toward goals.

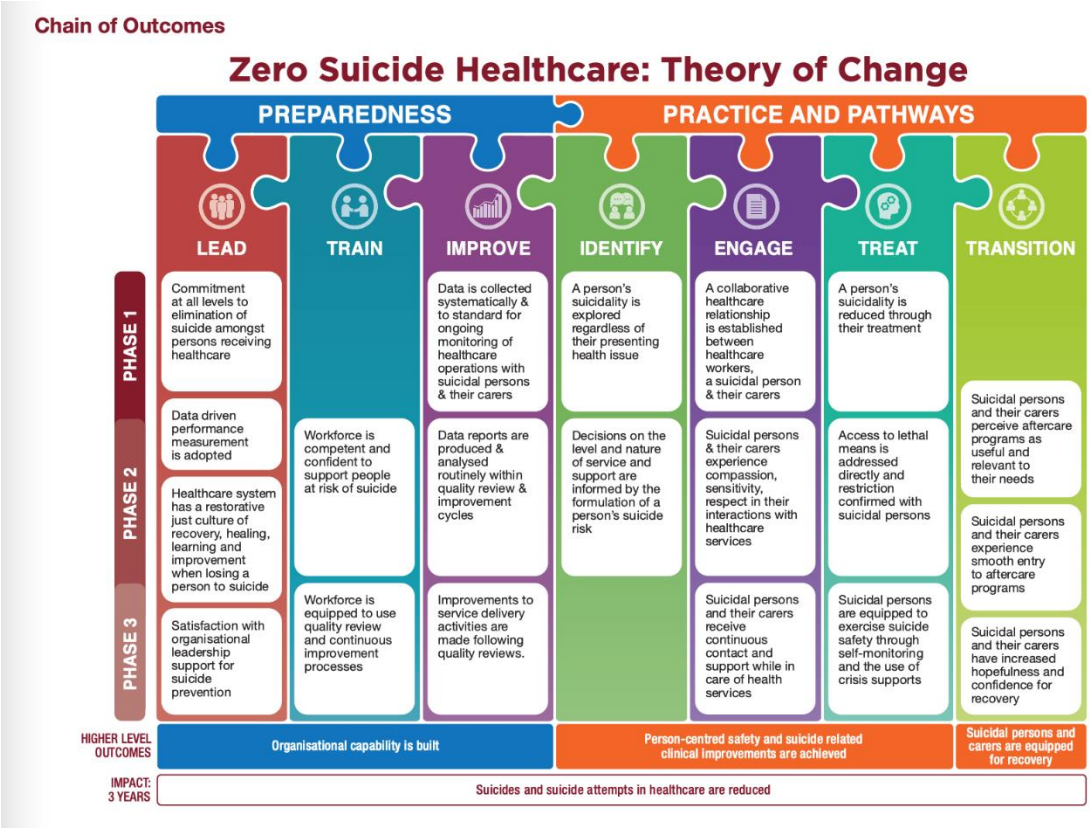
Development of the Theory of Change

The SC CoIIN's theory of change was developed from the information shared in the expert convening. EDC Improvement Advisors, trained to help identify, plan, and execute improvement projects, provided guidance on the refinement of the theory of change, assisted in building out the key driver diagram[2] and change package (see Figure 4), and helped identify an overall measurement strategy. Improvement Advisors have specific knowledge and expertise in the implementation of the CoIIN process, and they guided teams through each of the phases of the SC CoIIN, using data to inform next steps and improvements along the way.

This project draws upon the foundational theory from the Zero Suicide framework shown in Figure 2. This framework is a combination of practice, service delivery, consumer engagement, and organizational change activities, which, when combined, provide a road map for health systems to better prevent suicide in their systems and achieve a zero suicide state.

[2] Institute for Healthcare Improvement. (2017). *QI Essentials Toolkit: Driver Diagram*. https://www.ihi.org/resources/tools/driver-diagram#downloads

Figure 2. Zero Suicide Theory of Change[3]



The overarching SC CoIIN theory of change, as illustrated in Figure 3, described how the CoIIN aimed to improve outcomes for people experiencing suicidal thoughts, behaviors, and urges by changing the way hospitals and health care systems identify and care for them. This improvement was guided by the following primary drivers:

- Respectful, compassionate care
- A skilled and activated hospital and health system staff
- Standardized screening and assessment practices
- Collaborative person-centered care planning
- Supportive and timely care transitions

To improve outcomes, this work requires a systems-level approach and involvement from all levels of an organization, as well as the inclusion of persons with lived experience at the forefront of change efforts.

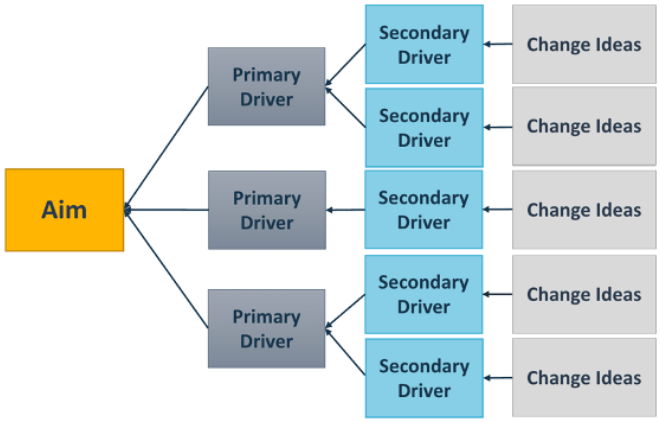
[3] Woodward, A., Ahmedani, B., & Murray, S. (n.d.). *Zero suicide healthcare – Evaluation framework: Outcomes, actions & measures*. Zero Suicide Institute of Australasia.

Figure 3. SC CoIIN Theory of Change

As illustrated in Figure 4, the change package is made up of four components:

1. **Aim:** The desired outcome of the collaborative, that is, what participating teams will work to achieve
2. **Primary drivers:** The major systems, processes, and norms that must change or be in place to accomplish the aim
3. **Secondary drivers:** The times, places, or steps in the process where change can occur
4. **Change ideas:** The tangible and specific actions, practices, and interventions that teams will test and adapt to work in their settings

Figure 4. SC CoIIN Change Package



Selection Criteria for Participating Hospitals

Organizations were selected for the SC CoIIN based on their ability to meet the following criteria:

- General eligibility, which consisted of a U.S.-based organization's commitment to improving suicide care practices, their identified populations of focus, and identified setting within the larger health care system
- Leadership and organizational commitment to improving suicide care practice
- Clearly identified learning goals and opportunities for improvement within their system
- A diverse team of individuals assembled to lead the improvement work
- The ability to commit sufficient time and staff resources to participate in the SC CoIIN activities

All interested organizations who applied for the SC CoIIN and were eligible were accepted. Two organizations interested in participating were ineligible due to being internationally based.

Participating Hospital and Health System Teams

Participating organizations were required to assemble implementation teams that would include a designated team leader and individuals possessing diverse expertise. These included individuals with lived experience of suicide and those experienced in providing direct clinical care, which could include individuals in a supervisory role if they continued to regularly see patients. Additionally, the teams were advised to include members:

- Proficient in record management and oversight of risk management and patient safety
- Capable of assuming roles such as senior executives or sponsors, and so have the authority to enact decisions stemming from the CoIIN process, such as changes to organizational policies and procedures

Participating teams ranged in size from 3 to 6 members and had the requisite background described above.

Finally, it is important to highlight that a significant portion of the SC CoIIN's efforts have been dedicated to fostering and enhancing the thoughtful and deliberate integration of lived experience into suicide prevention and intervention processes based on expert convening recommendations. This aspect of the work has added considerable depth and complexity to the SC CoIIN's work.

Data Collection and Measurement

Aggregated data from each participating team was collected from electronic health records and reported monthly using run charts on a shared set of outcome measures. These data points, often plotted on the run charts, served as critical indicators to assess which suicide care practices were improving patient outcomes.

In addition, other data sources were utilized, such as the Zero Suicide Workforce Survey. Implementation teams administered the survey at the project's onset in July 2023 and again in March 2024, thereby allowing for a pre-post comparison. The Workforce Survey was selected as a tool for supporting teams in identifying potential change ideas, tracking implementation and related outcomes. The survey was administered to staff working in the areas of the participating organizations that were implementing SC CoIIN change ideas. Of note, only two organizations completed a post-administration of the Workforce Survey.

In addition, data collected via surveys following SC CoIIN activities (e.g. learning sessions, site visits, and action period calls) were used to assess participant acceptability and satisfaction with the activities; feedback on technical assistance received as part of the activity, and feedback on the format, structure, and technology used to support the CoIIN. At the Harvest call, a meeting designed to collect information and data related to teams' implementation, participants completed a worksheet describing the change ideas that were tested and the status of the change ideas (e.g. adopted, abandoned, or needs further study). They also completed a survey to rate progress on key areas of growth throughout the CoIIN, including providers' skills and knowledge of suicide care. Other sources of data included administrative data used to track communication and dissemination of SC CoIIN progress and value both internally and externally to the organization.

Lastly, at the end of the project, the project evaluator conducted a focus group with SC CoIIN staff to collect their feedback and lessons learned on the project overall.

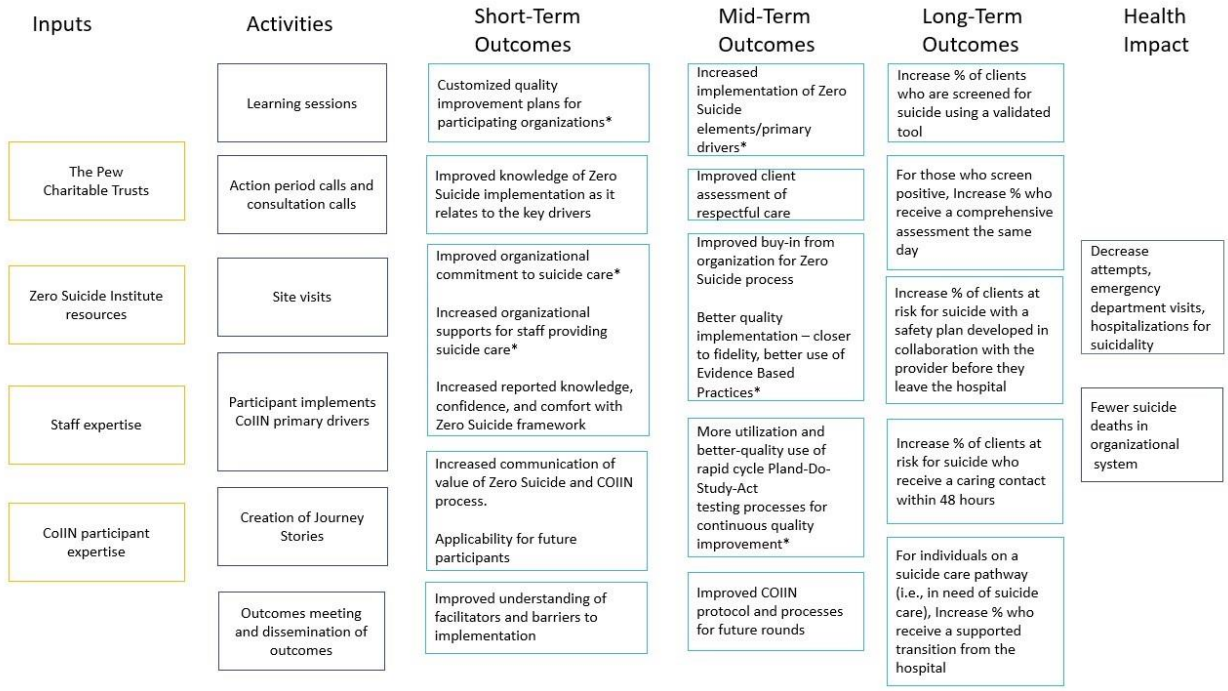
Outcome Measures

There were several types of outcomes when capturing improvement or impact of the SC CoIIN. These include short-, mid-, and long-term outcomes; and long-term health impacts, such as decreased suicide deaths within the health system.

Figure 5 displays the logic model, which includes these outcomes for the SC CoIIN. Short- and mid- outcomes were measured through data collected through responses (e.g. surveys, worksheets) to SC CoIIN activities. Long-term outcomes were measured through data collected from participating teams' run charts. Due to the short duration of this project, data could not be collected on health impact outcomes. Therefore, the health impact outcomes are theoretical, in that the theory of change that supported this work also supported the premise that the SC

CoIIN's work would have an impact in these areas (e.g. decreases in suicide attempts, emergency department visits, hospitalizations for suicidality, and suicide deaths within the organizational system).

Figure 5. SC CoIIN Logic Model



*Indicates which outcomes address organizational capacity and readiness to improve suicide care

Improvement in long-term outcomes is defined as having either a trend or a shift in the data. The direction of improvement for all measures used in this project was up or increasing. A *trend* is defined as having five or more consecutive data points all increasing. A *shift* is defined as six or more consecutive data points, all above the baseline median. (A shift was established for each team based on their first three data points.) When a shift is detected, a new shifted median is calculated (median of the points falling above the baseline) and added to a team's run chart to indicate the new higher level of performance the team achieved, or their "new normal" state. Trends and shifts were recorded in each organization's run charts, as well as the overall collaborative-level run charts that aggregate data from all participating teams.

Table 1 describes all the SC CoIIN outcomes identified in the Logic Model (Figure 5) with their indicators and data sources as key to understanding changes and improvements to suicide care. Data tables are a common and valuable tool in evaluation planning as they provide a clear, organized overview of available metrics, data points, and data sources relevant to a project, while also identifying theoretical data points that may not be available for the current project but are relevant to the theory of change. This visual representation not only enhances the

clarity of the methodology but also serves as a practical reference point throughout the project's lifecycle, facilitating more efficient data management and analysis.

Table 1. SC CoIIN Data Table

Outcomes	Indicators	Data Sources and Collection
Short-Term Outcomes		
Improved knowledge of Zero Suicide implementation as it relates to the key drivers	• I am familiar with the "Zero Suicide" framework. (WFS) • I am knowledgeable about how to incorporate the voice and expertise of those with lived experience into my organization's suicide prevention work. (HCS)	Zero Suicide Workforce Survey (WFS) Harvest Call Survey (HCS)
Improved organizational commitment to suicide care	• I believe suicide prevention is an important part of my professional role. (WFS) • The leadership at this organization has explicitly indicated that suicide prevention is a priority. (WFS) • What are you most looking forward to about your future suicide care work? (HCS)	Zero Suicide Workforce Survey Harvest Call Survey
Increased organizational supports for staff providing suicide care	• This organization provides me access to ongoing support and resources to further my understanding of suicide prevention. • I feel that my organization would be responsive to issues that I bring up related to the safety of individuals at risk for suicide. • I felt supported by this organization the last time a suicide occurred. • This organization has practices in place to support staff when a suicide occurs.	Zero Suicide Workforce Survey
Increased reported knowledge, confidence, and comfort with Zero Suicide framework	• I have the knowledge and training needed to recognize when an individual may be at an elevated risk for suicide. (WFS) • I am knowledgeable about warning signs for suicide. (WFS) • I know what organizational procedures to follow when I suspect that an individual may be at an elevated risk for suicide. (WFS) • I am confident in my ability to respond when I suspect an individual may be at an elevated risk for suicide. (WFS) • I am comfortable asking individuals direct and open questions about suicidal thoughts and behaviors. (WFS)	Zero Suicide Workforce Survey

Increased communication of value of Zero Suicide and SC COIIN process	• Count of times information was shared both internally and externally to the organization	Administrative data
Applicability for future participants	• What went well today? (AP/LS/Site Visit) • What would make future calls better? (AP/LS) • What didn't go well? (Site Visit) • What activities/content did you find most useful for your learning? (LS) • During the call, I am provided with useful guidance on change ideas to improve suicide care. (LS) • The faculty/speakers on call provide important and relevant content expertise for my work. (LS) • I feel confident in applying the information from this site visit to my work. (Site Visit) • Knowing what you know now, what changes would you make for the next round of participants in an SC CoIIN process? (Focus Group)	Action Period Call Survey (AP) Site Visit Evaluation Learning Session Evaluation (LS) Site Visit Evaluation Focus Group
Improved understanding of facilitators and barriers to implementation	Brief summary of adopted changes (Harvest Worksheet): • What worked well for you in this project? (Focus Group) • What didn't work well for you? (Focus Group) • What worked well for you when participating in this SC CoIIN process? (HCS) • What didn't work well for you when participating in this SC CoIIN? (HCS)	SC CoIIN Harvest Worksheet Focus Group Harvest Call Survey
Mid-Term Outcomes		
Increased implementation of Zero Suicide elements and primary drivers	Team assessment of the following: • Changes adopted, abandoned, adapted, or need further tested. (Harvest Worksheet) • Percent of run chart measures with data reported. • Our suicide screening policies and guidelines are aligned with best practice. (HCS) • Our suicide risk assessment policies and guidelines are aligned with best practice .(HCS) • Our suicide safety planning is collaborative and person-centered. (HCS) • Our clinical staff understand the suicide care pathway at our organization. (HCS)	SC CoIIN Harvest Worksheet Run Charts Harvest Call Survey
Improved client assessment of respectful care	• Average assessment of respectful care (Run Charts)	Run Charts Harvest Call Survey

	• Our clinical staff provide respectful and compassionate care at all points of contact (HCS)	
Improved buy-in from orgs for Zero Suicide process	• The leadership at this organization has explicitly indicated that suicide prevention is a priority. (WFS) • This organization provides me access to ongoing support and resources to further my understanding of suicide prevention. (WFS) • I feel that my organization would be responsive to issues that I bring up related to the safety of individuals at risk for suicide.(WFS) • We have enough buy-in from our organization's leaders to fully support safer suicide care policies and practices. (HCS)	Workforce Survey Harvest Call Survey
Better quality implementation – closer to fidelity, better use of Evidence Based Practices	• Tools and resources (Worksheet) • In which of the following areas, if any, would you like more training, resources, or support? (WFS) • I have received training on suicide-specific evidence-based treatment approaches (e.g. CAMS, CBT-SP, DBT). (WFS) • In which of the following suicide-specific evidence-based treatment approaches, if any, have you received training? (select all that apply) (WFS) • Our clinical staff provide quality suicide specific interventions (e.g. CAMS, CBT-SP, DBT) to fidelity. (HCS) • Our organization provides guidelines and policies for supportive and timely care transitions. (HCS)	SC CoIIN Harvest Worksheet Workforce Survey Harvest Call Survey
More utilization and better-quality use of rapid cycle PDSA testing processes for CQI	• Team assessment of the change (Harvest Worksheet) • I have the necessary skills to successfully run PDSA processes to improve my organization's safer suicide care policies and practices. (HCS) • What is your assessment of the quality of PDSA cycles that participating organizations conducted? (Focus Group)	SC CoIIN Harvest Worksheet Harvest Call Survey Focus Group
Improved COIIN protocol and processes for future rounds	• Organization's next steps (Harvest Worksheet) • Knowing what you know now, what changes would you make for the next round of participants in a SC CoIIN process? (Focus Group)	SC CoIIN Harvest Worksheet Focus Group Harvest Call Survey

	• What recommendations do you have for other hospitals and health care systems undertaking safer suicide care improvements? (HCS)	
Long-Term Outcomes		
Increased suicide screening	• Increase the percent of clients who are screened for suicide using a validated tool.	Run Charts
Increased suicide risk assessment	• For those who screen positive, increase the percent of those who receive a comprehensive assessment the same day.	Run Charts
Increased safety planning	• Increase the percent of clients at risk for suicide with a safety plan developed in collaboration with the provider before they leave the hospital.	Run Charts
Increased caring contacts	• Increase the percent of clients at risk for suicide who receive a caring contact within 48 hours.	Run Charts
Increase supported transitions	• For individuals on a suicide care pathway (i.e., in need of suicide care), increase the percent of those who receive a supported transition from the hospital.	Run Charts
Impact		
Decrease attempts, emergency department visits, and hospitalizations for suicidality		Theoretical
Fewer suicide deaths in organizational system		Theoretical