



Children's
Safety
Network

Drowning Prevention

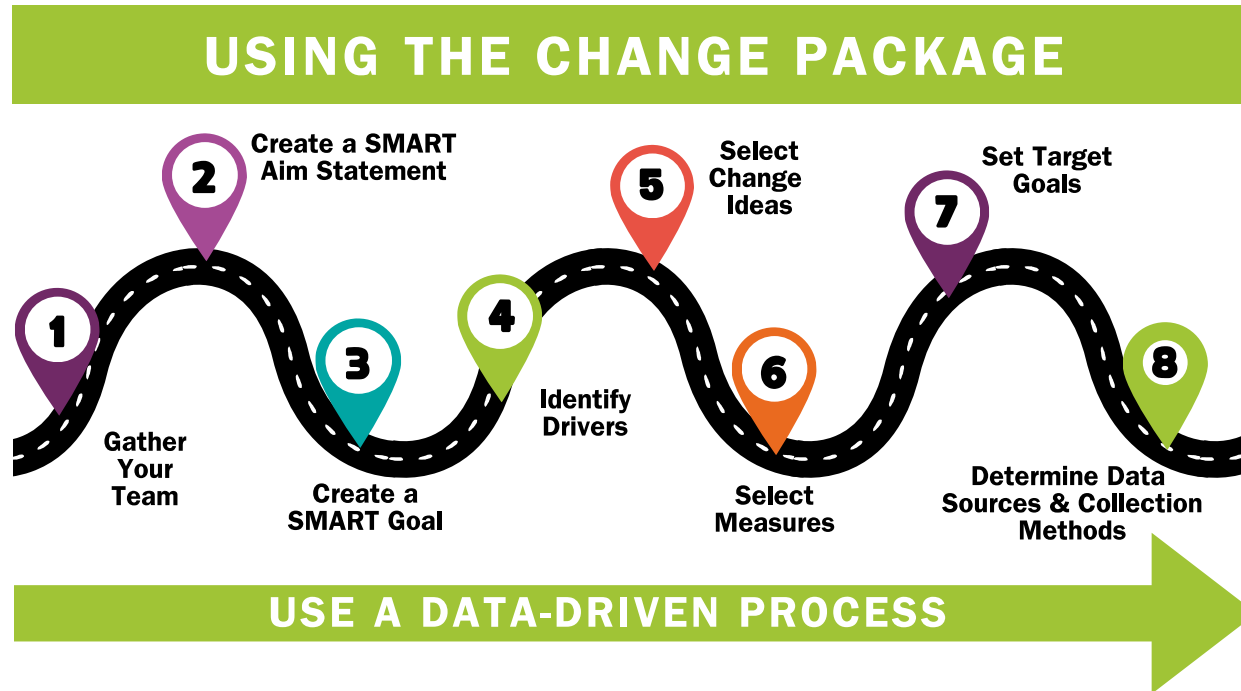
Change Package

Purpose

The Drowning Prevention (DP) Change Package reflects the latest research on preventing childhood injuries and fatalities and provides guidance to states, jurisdictions and public health practitioners in selecting DP change ideas (i.e., evidence-based and evidence-informed strategies that translate research into practice). This change package is an action-oriented document that presents a framework to inform and advance work in drowning prevention across the social-ecological model to improve the effectiveness of drowning prevention efforts through testing, implementing, and spreading change ideas.

As part of this Learning Collaborative, you will use this Change Package as the foundational tool to articulate your goals, determine how you will work towards them, and measure progress. The change package is designed to be ambitious, but also to allow states and jurisdictions to begin where they are and grow over time. Child Safety Learning Collaborative (CSLC) topic team members are encouraged to share this Change Package with their respective state strategy team members to determine which drivers, change ideas and measure will best result in population level improvements. Whether you are just beginning to address this topic in your state, or you have already made significant progress, these change ideas and measures will help you focus your efforts and ensure they are having the desired impact.

Using the Change Package



1. Gather Your Team

Consider your work and determine who needs to be at the table to assist you. You might begin with a smaller, internal team to work through the change package and determine your strategies and then expand your team with additional partners as necessary.

2. Create a SMART Aim Statement

An aim statement is a written, measurable and time-sensitive statement of the expected results in an improvement process. Aim statements are written in a SMART format, meaning they should be specific, measurable, attainable, relevant and time-bound. A sample SMART aim statement is provided below.

3. Create a SMART Goal

The SMART goal breaks the aim into a discrete, action-oriented goal. It may focus on a location, type of program, population, etc. and is achievable within the timeframe of the Child Safety Learning Collaborative cohort (typically 18 months). A sample SMART goal is provided below.

4. Identify Drivers

The Driver Diagram portion of the change package is organized by primary drivers and secondary drivers. Primary drivers directly contribute to achieving the aim at the societal level, organizational level, and relationship/individual level. Secondary drivers are factors considered to be critical to achieving the overall vision of this change package, to reduce childhood related injuries and fatalities. Working across the social ecological model will enable states to more comprehensively address this injury topic and have greater impact.

5. Select Change Ideas

Change ideas are evidence-based or evidence informed strategies. Many of these change ideas enhance partnerships to support efforts in health care settings, communities, and with families and caregivers. State strategy teams are asked to use a data-driven approach to choose one to three change ideas and then select corresponding measures for each. State strategy teams continuing to participate in successive cohorts may decide to choose additional change ideas while simultaneously sustaining and spreading previously selected change ideas. State strategy teams are more likely to have greater impact by choosing change ideas in different primary driver levels.

6. Select Measures

The measurement strategy is based on the theory of change that a culture of prevention, supported by organizational policies and procedures and with families following prevention best practices, will lead to a reduction in injuries and fatalities. Select the measures that will give you the best indication of whether you are making progress toward your goals. Note that there is not a one-to-one correspondence between change ideas and measures and more than one change idea may be necessary to move a given measure. It is important

to consider available data and specific goals when determining which measures will inform progress, at times including alternative measures not included in the change package. If you opt to add a measure, or would like guidance on selecting measures, please contact CSN for technical assistance.

7. Set Target Goals

Revisit your SMART goal with consideration to the change ideas and measures you selected. Set a target goal for each measure you selected. A sample target goal is provided below.

8. Determine Data Sources & Collection Methods

Work with your state strategy team, state epidemiologists, and/or state data managers to identify data sources and collection methods for each of your target goals. Establish your data collection system (e.g., where is data stored), collect data and report your data monthly, analyze your data, and use your data to inform decision-making.

Notes & Acronyms

Notes:

Change ideas focused on expanding partnerships are designed to increase capacity by engaging partners (i.e., individuals, organizations, other departments and programs, etc.) to address shared risk and protective factors.

Parents/caregivers are intended to be inclusive of birthing parents, adoptive parents, guardians, and kin placements. Natural supports are trusted individuals and groups that are influential in the lives of parents/caretakers, such as grandparents, aunts/uncles, and other caregivers.

First responders are intended to be inclusive of law enforcement, emergency medical services, and firefighters. For drowning prevention this also includes lifeguards and lay responders.

Populations that are disproportionately impacted by drowning injuries and deaths are given as examples in this document based on national statistics. States should use local data whenever possible to make data-driven decisions.

Acronyms:

AAP	American Academy of Pediatrics
CDC	Centers for Disease Control and Prevention
CDR	Child Death Review
CI	Change Idea
CSPC	Consumer Product Safety Commission
DP	Drowning Prevention
FIMR	Fetal and Infant Mortality Review
MCH	Maternal Child Health
MOU	Memorandum of understanding (often created to solidify agreement of responsibilities between two parties)
PD	Primary Driver
SD	Secondary Driver
WIC	Women Infants and Children Nutrition Program

Sample: SMART Aim Statement, SMART Goal, Drivers, Change Idea, Measure, Target Goal

SMART Aim Statement: By 2030, we will reduce the number of deaths of youth 0 to 19 years resulting from drowning by 5% in [State].

SMART Goal: By October 2026, increase by 10% the number of partners who participate in a linked/ collaborative data system that identifies risk and protective factors for fatal drownings.

Drivers/Change Idea: PD 1, SD 1, CI 3: Develop a panel of partners to link existing data systems across the drowning spectrum (e.g., lifeguards, law enforcement, emergency medical service, emergency department, hospital, and medical examiner staff) to allow more complete analysis of risk and protective factors for drowning prevention (this may include creating data sharing agreements, MOUs, etc.).

Measure: Number of organizations that collaborate to report data, including using FIMR and CDR data systems, to reduce drownings

Target Goal: 5 organizations by October 2026

Change Package

Driver Diagram

Primary Driver	Secondary Driver	Change Ideas	Recommended Measures
PD 1: Societal Level Culture of drowning prevention practices	SD 1: Knowledgeable partners and policymakers	1. Educate policymakers about best practices for DP, including addressing risk and protective factors, utilizing The U.S. National Water Safety Action Plan (USNWSAP), American Academy of Pediatrics (AAP) policy statements, and the Centers for Disease Control and Prevention (CDC) Preventing Drowning including the Model Aquatic Health Code , and other evidence-based resources	1
		2. Partner with communities and organizations to engage and participate in drowning prevention campaigns (e.g., campaigns by Water Safety USA, Safe Kids Worldwide)	4, 12
		3. Develop a panel of partners to link existing data systems across the drowning spectrum (e.g., lifeguards, law enforcement, emergency medical service, emergency department, hospital, and medical examiner staff) to allow more complete analysis of risk and protective factors for drowning prevention (this may include creating data sharing agreements, MOUs, etc.)	7
		4. Implement a standardized data collection tool for use in drowning investigations by law enforcement, pre-hospital care, hospitals, coroners, medical examiners and similar investigators. (e.g., conducting assessments of existing data collection tools, creating/utilizing shared surveys, data dashboards, standardizing FIMR/CDR data collection, etc.). Examples include guidance from The Recreational Boat Occupant	7

Primary Driver	Secondary Driver	Change Ideas	Recommended Measures
		Injury Surveillance Project and tools from the National Center for Fatality Review and Prevention including the Drowning Case Registry . This may also include pre-work around common language and definitions.	
		5. Disseminate a tool to enhance media reporting of fatal and nonfatal drowning to include details on known risk factors, such as water conditions and alcohol or drug use, and evidence-based prevention strategies, such as isolation fencing, swim ability, life jacket use, and lifeguard presence, and may include collecting and disseminating verified drowning and rescue narratives to provide context to quantitative data	3, 123, 12
		6. Support the use of syndromic surveillance to identify emerging trends in drowning such as the National Syndromic Surveillance Program, ESSENCE Chief Complaint Query Validation (CCQV) (e.g., among specifically impacted populations, use of substances, supervision of victim, etc.)	7
	SD2: Collaborative Partnerships	7. Establish and expand drowning prevention partnerships at the state level to conduct a comprehensive reflection process (e.g., using the U.S. National Water Safety Action Plan) that involves multiple partners. This includes aligning the work of relevant areas and programs within the state health agency (e.g., WIC, MCH, Early Intervention, FIMR/CDR programs, substance use prevention, treatment and recovery services) as well as inviting health care providers, home visitors, first responders, lifeguards, pool inspection staff, park and recreation staff, Healthy Start, retailers, members of impacted populations, etc. to ensure alignment with best practices, consistent approaches and messaging regarding drowning prevention	5

Primary Driver	Secondary Driver	Change Ideas	Recommended Measures
		8. Partner with CDR and/or FIMR teams to inform systemic recommendations that strengthen practices and prevent drowning especially among impacted populations (e.g., partnerships with the US Coast Guard, National Association of Boating Law Administrators and local marine patrol agencies to improve understanding of factors leading to and preventing cases in open water/boating by greater use/sharing of the Boating Accident Reporting Database and Reporting Form)	7, 13
		9. Increase the number of partnerships with organizations and systems that serve families most impacted by drowning (e.g., child protective services, faith-based organizations, Safe Kids Worldwide, foster care, childcare, emergency medical services, Medicaid, substance use prevention, treatment and recovery services, etc.)	2, 3, 4, 14
		10. Collaborate with community partners to provide access to programs that develop water-competency swim skills for all children, especially those from low-income families and those with developmental disabilities and/or special healthcare needs, including asking partners to identify and support programs to increase access to high-quality and affordable programs	11

Primary Driver	Secondary Driver	Change Ideas	Recommended Measures
PD2: Organizational Level Organizational policies and procedures support the practices and culture of drowning prevention	SD1: Knowledgeable and proactive water safety and drowning prevention practitioners and local partners	11. Provide DP training and resources to a broad range of providers that reach children ages 0-19, including healthcare providers (e.g., through hospitals, pediatricians, and other healthcare systems), early childhood providers, schools, out-of-school time providers, those leading baby-sitting and childcare classes, and others	12, 14, 15
		12. Educate partners and community organizations to use appropriate terms when discussing DP (e.g., using the term “nonfatal drowning” rather than “near drowning” and avoiding the terms “dry drowning” or “secondary drowning” [drowning is drowning]) when speaking to families and the media to avoid confusion and misconceptions (e.g., suggested resources include International Drowning Researchers’ Alliance and the Drowning Timeline)	12
		13. Collaborate with home visiting programs to provide DP education and resources when interacting with families	4, 8, 12, 14, 15
		14. Increase access to life jackets through life jacket-loaner programs at swimming and boating sites	10
	SD2: Adoption of evidence-based strategies and policies by organizations	15. Provide best practice DP information and resources for organizations and communities, especially in communities and populations disproportionately impacted (e.g., resources from Safe Kids Worldwide, Water Safety USA)	2, 3, 4, 12, 14, 15
		16. Work with retailers to display and advertise appropriate DP information and resources both in-store and online (e.g., purchase and use of U.S. Coast Guard approved life jackets, Safe Kids Worldwide Guidance on finding the right lifejacket, etc.)	6

Primary Driver	Secondary Driver	Change Ideas	Recommended Measures
	SD3: Established policies and state licensing regulations that improve the understanding and prevention of drowning and increase water safety	17. Partner with agencies (e.g., childcare, protective services, foster care, and welfare) to incorporate DP education for providers when they are conducting on-site safety checks and inspection and as part of licensure	9
		18. Provide education to medical examiners and coroners on investigation guidelines and resources for investigating drowning incidents (e.g., National Center for Fatality Review and Prevention's Review of Drowning Fatalities and Water Related Death Scene Investigation (DSI) Protocol and CDC's Cause of Death Mobile App	13
PD3: Relationship/ Individual Level Families and care givers knowledgeable in DP	SD1: Families, caregivers, and natural supports knowledge-able in DP practices	19. Provide education to natural supports who are trusted individuals and groups that are influential in the lives of parents/guardians, such as grandparents, aunts/uncles, and other caregivers, as well as potential supervisors of children engaging in activities in and around water (e.g. AAP guidelines , Safe Kids Worldwide Tips)	4, 15
		20. Utilize social media, blogs, infographics to increase parents/caregivers/natural supports' understanding of DP (e.g., AAP's Drowning Prevention Campaign Toolkit)	12, 15
		21. Provide tailored anticipatory guidance related to drowning risks to parents of children with special healthcare needs (e.g., children with epilepsy, autism, and cardiac arrhythmias) and other populations data demonstrate are at increased risk (e.g., male adolescents)	14, 15

Measurement Strategy

Measure	Additional Data to Consider
1. Number of policymakers educated in DP best practice	Type of policymaker, number of practices/policies changed
2. Number of organizations providing DP best practice information to providers who serve children 0-19	Type of organization, type of education, number of care providers providing education, number of providers educated, number of organizations that specifically serve priority populations
3. Number of organizations disseminating DP education, support and resources to local communities	Type of organization, type of resources, type of education, number of members of priority populations reached, how education materials have been adapted to be culturally relevant for populations
4. Number of organizations providing DP education to parents/caregivers and/or natural supports	Type of organization, type of education, number reached, number of members of priority populations reached
5. Number of organizational partnerships developed to promote and spread best practices in DP	Type of organizations, type of best practices promoted, number of best practices spread
6. Number of retailers who display appropriate DP information and resources	Type of retailer, type of resources shared
7. Number of organizations that collaborate to report data, including using FIMR and CDR data systems, to reduce drownings	Type of organization, type of system used, number of organizational policies/practices updated

Measure	Additional Data to Consider
8. Number of state agencies (e.g., childcare, protective services, home visiting, foster care and welfare) that establish practices or policies for providing DP by funded organizations and/or direct service staff (e.g., home visitors, ongoing workers)	Type of agency, type of education provided
9. Number of agencies that incorporate DP in on-site safety checks (e.g., home visiting, child protective services)	Type of checklist/tool used
10. Number of organizations providing access to coast guard approved life jackets	Number of children who use coast guard approved life jackets
11. Number of organizations providing access to water competency/swim lessons	Number of children who take swim lessons
12. Number of providers who provide evidence and data-informed messages and resources for drowning prevention to parents/caregivers and natural supports	Number and type of resource, number of media events (e.g., blogs, posts, articles, etc.)
13. Number of investigators with knowledge of investigation guidelines and resources for investigating drowning incidents	Number and type of guidelines and resources used, change in knowledge of investigators, number of practice changes, number of organizational policy changes
14. Number of providers giving tailored anticipatory guidance to populations most at risk of drowning	Number of parents/caregivers reached, resources used
15. Number of parents/caregivers/natural supports with knowledge, attitudes and/or behaviors aligned with reducing risk for drowning	Tool/survey used, type of knowledge, attitudes and /or behaviors impacted

References

- American Academy of Pediatrics. (2019, May 1). *Prevention of drowning*. Policy statement. Pediatrics, 143(5), e20190850. <https://doi.org/10.1542/peds.2019-0850>
- Centers for Disease Control and Prevention. (n.d.). *Risk Factors for Drowning*. Retrieved March 21, 2025, from <https://www.cdc.gov/drowning/risk-factors/index.html>
- Centers for Disease Control and Prevention. (n.d.). *About the Model Aquatic Health Code (MAHC)*. Retrieved March 21, 2025, from <https://www.cdc.gov/model-aquatic-health-code/php/about/index.html>
- Nationwide Children's Hospital. (2015, July). *Delayed symptoms of drowning: Know the signs*. <https://www.nationwidechildrens.org/family-resources-education/700childrens/2015/07/delayed-symptoms-of-drowning-know-the-signs>
- U.S. National Water Safety Action Plan 2023-2032. https://www.watersafetyusa.org/uploads/7/0/6/0/70608285/usnwsap_2023.pdf

Program Resources

[American Academy of Pediatrics](#)

[Drowning Prevention Campaign Toolkit](#)

A variety of social media graphics, videos and posters, available in both English and Spanish, intended to be shared with parents and caregivers.

[Prevention of Drowning](#)

The American Academy of Pediatrics issued this revised policy statement because of new information and research regarding populations at increased risk, water competency when children are in and around water, when children are not expected to be around water, the drowning chain of survival and importance of bystander CPR. It includes prevention strategies, including the Haddon Matrix for Drowning Prevention Strategies.

[American Red Cross](#)

[Drowning Prevention and Facts](#)

This page provides an overview of drowning as a leading cause of death for children, the most dangerous locations by age, how drowning risks vary and additional resources.

[Centers for Disease Control and Prevention](#)

[About the Model Aquatic Health Code](#)

CDC's Model Aquatic Health Code (MAHC) is guidance to prevent injury and illness at aquatic venues open to the public. This guidance brings together the latest science and best practices to help jurisdictions save time and resources when they develop and update pool codes, addressing topics like building aquatic facilities and lifeguard training.

[Preventing Drowning](#)

Drowning prevention publications and resources are listed on this page. This includes CDC MMWR and other journal articles, CDC resources, and additional partner information and reports.

[Risk Factors for Drowning](#)

This page provides an overview of conditions that increase risk for drowning.

[Children's Safety Network](#)

[CSN Framework for Quality Improvement and Innovation in Child Safety: A Guide to Implementing Injury and Violence Prevention Strategies and Programs](#)

The [Children's Safety Now Alliance](#) developed this guide which introduces the CSN Framework for Quality Improvement and Innovation in Child Safety, provides background and resources to state and jurisdiction maternal and child health (MCH) and injury and violence prevention (IVP) practitioners to increase their capacity to achieve reductions in child and adolescent injury and violence related fatalities, hospitalizations, and emergency department visits.

[Drowning Prevention](#)

This webpage includes contextual data, prevention strategies, links to publications, infographics, resource guides, archived webinars and more.

[HeadStart.gov](#)

[Tips for Keeping Infants and Toddlers Safe: A Developmental Guide for Home Visitors -Young Infants](#)

This guide provides a variety of resources, including tips and safety checklists for preventing childhood injuries, including drowning, through home visiting.

[The International Drowning Researchers' Alliance \(IDRA\)](#)

[Drowning Timeline](#)

A systematic model of the drowning process.

[National Center for Fatality Review and Prevention](#)

[Review of Drowning Fatalities: Update to the 2020 National Center Guidance Report](#)

This updated guidance report provides contextual data; guidance related to investigation, review and prevention; and additional resources.

[National Drowning Prevention Alliance \(NDPA\)](#)

[2025 Water Safety Season Toolkit](#)

The 2025 Water Safety Season Campaign toolkit is a full campaign schedule compiled of NDPA's top social posts, Video PSAs, sharable blogs, press release templates, printable documents and so many more resources to help you advocate for water safety and drowning prevention from May through August. NDPA provides an updated toolkit yearly.

Nationwide Children's

[Delayed Symptoms of Drowning: Know the Signs](#)

This blog by pediatric experts discusses delayed symptoms of drowning, as well as appropriate terms to use when discussing drowning.

Safe Kids Worldwide

[Water Safety at Home](#)

This website includes tips and resources including home safety checklists and infographics in multiple languages.

Water Safety USA

[U.S. National Water Safety Action Plan 2023-2032](#)

The U.S. National Water Safety Action Plan (USNWSAP) is a national roadmap for collective action to reduce drowning. It provides a framework and tools to support the development and implementation of data- and evidence-informed, context-specific water safety action plans in communities, counties, and states across the country. It also lays out national actions that support implementation and increase the likelihood of success of those local plans.

[U.S. National Water Safety Action Plan: From Reflection to Action: Phase 1](#)

The Reflection Phase, which makes up the first six steps of the Reflection to Action Process, is designed as an initial reflection of the current situation to ensure drowning prevention action planning starts from an informed place of understanding, and an exploration of how that situation can be built upon and enhanced. The Reflection phase involves spending time exploring, discovering, and reviewing key factors that influence drowning in a community context, whether that is at the local, county, or state level.

