

Expanding NORA Construction Sector Program Impact Discussion



November 2023

Some Definitions

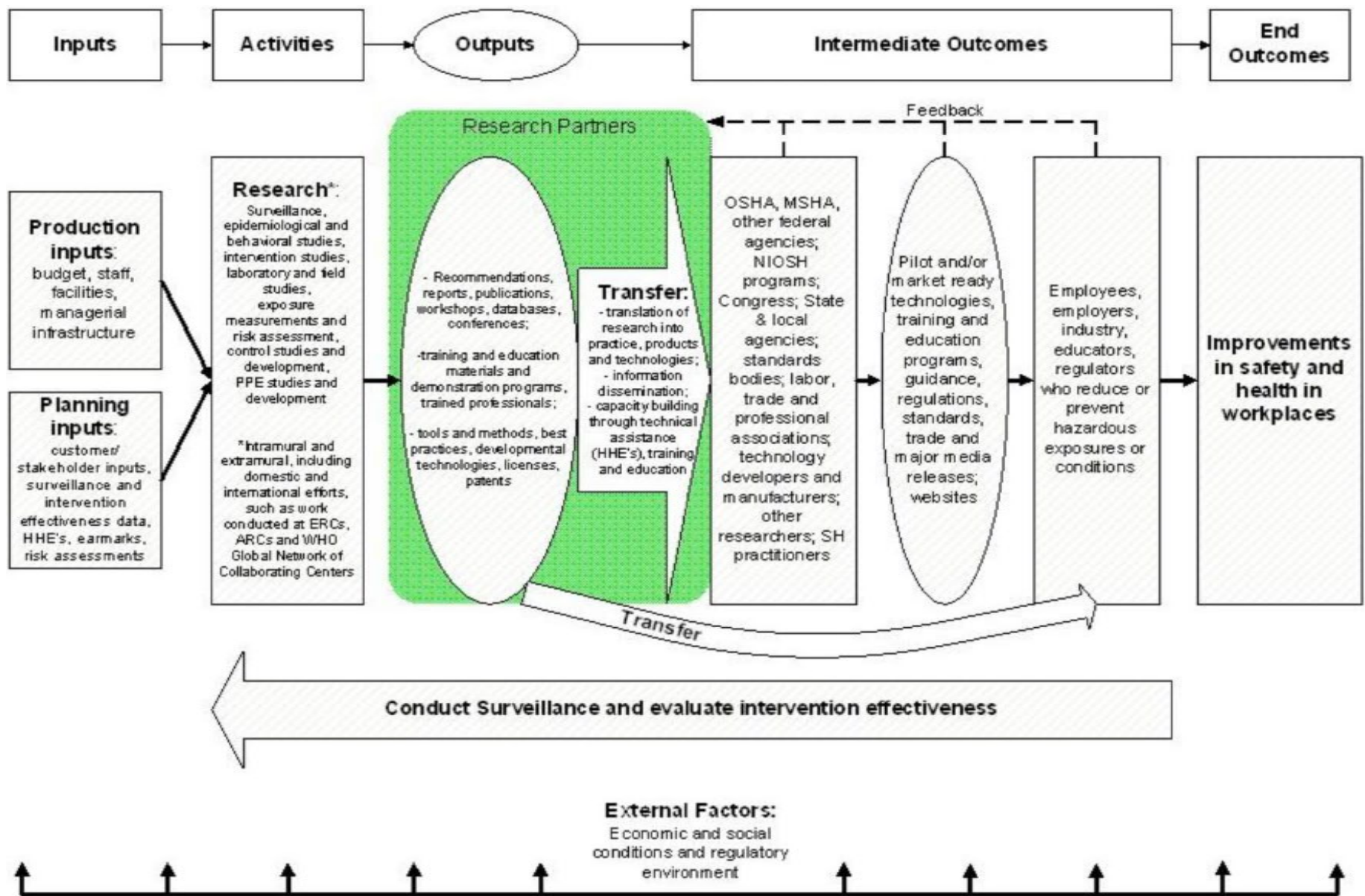
NIOSH uses the 'BNI Method' to identify and define research priorities

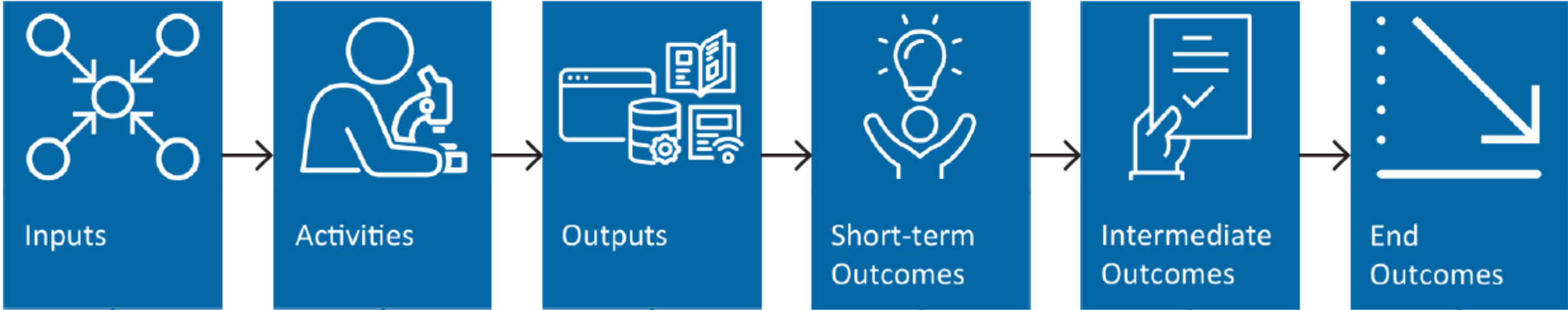
- Burden - evidence of health and safety workplace risks and hazards
- Need - includes unique resources of NIOSH/ NORA collaborators to perform the work
- Impact - how likely the work will reduce burden
 - Lead others to act on findings
 - Promote practical intervention
 - Promote other intermediate outcomes



“NIOSH Logic Model” from:

Downes A, Novicki E, Howard J [2019]. <https://journals.sagepub.com/doi/10.1177/1098214018767046>







Outputs

**Products
(i.e., Publications,
Engineering
Controls, &
Tool Kits)**



Short-term
Outcomes

**Immediate Effects
(i.e., Awareness,
Knowledge &
Motivation)**



Intermediate
Outcomes

**Behavior Change
(i.e., Use &
Implementation)**



End
Outcomes

**Improved
Worker Safety
& Health**

Some Definitions

Short Term Outcomes = the immediate effects of initiatives, projects, or programs. These effects include changes in learning, awareness, knowledge, attitudes, skills, opinions, motivations, and intent. Example includes:

- Safety managers' increased knowledge of falls in residential construction as measured by a post-training survey

Intermediate Outcomes = Changes in Behavior. Examples include:

- Company adopting recommendations directly into workplace practice
- Employer adopting a new OS&H technology into the workplace
- Safety and health inspector using new methods intended to advance OS&H

Some Definitions

- Go beyond using indicators of “reach” in place of indicators (or evidence) of behavior change



Journal
citations



Page
views



Altmetrics



Downloads



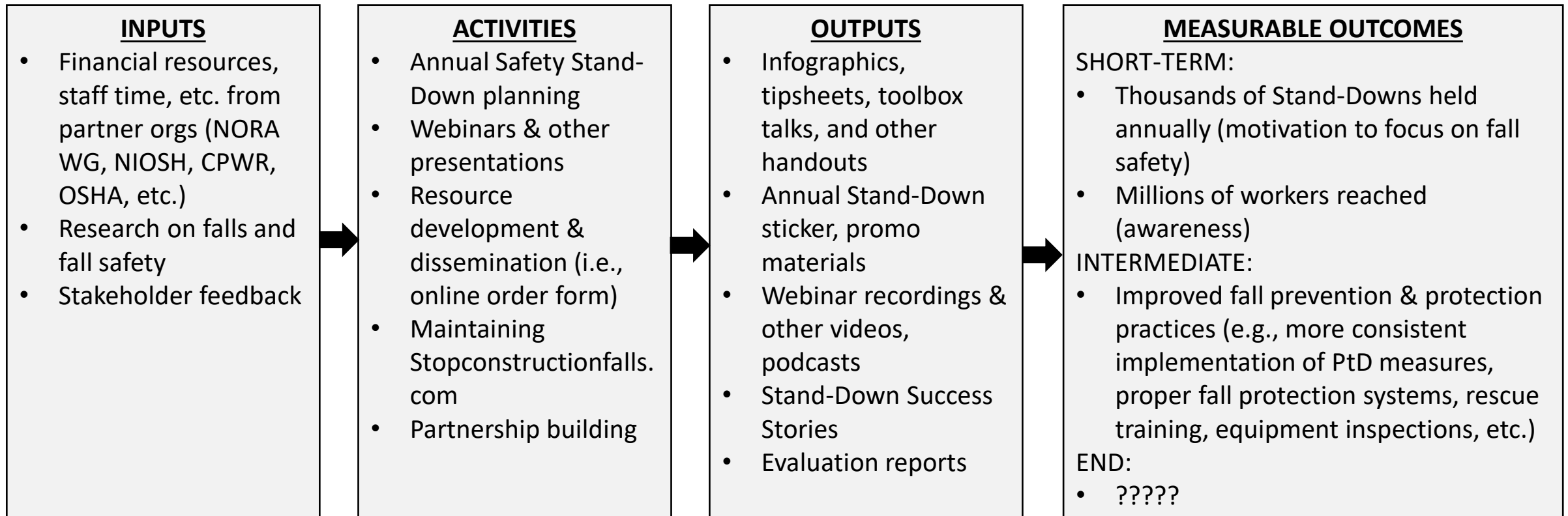
Measuring behavior
change to improve
occupational safety
and health

Falls Work Group

Outputs & Outcomes

12 Years of the National Campaign to Prevent Falls in Construction


Began in 2012, but originated as an objective of the Second Decade National Occupational Research Agenda for Construction (2006-2016)



Measuring Reach & Outcomes

- OSHA Certificate of Participation Data
- 2017 Social Network Analysis
- Success Stories
- Website metrics
- Social media engagement
- Webinar views & satisfaction surveys
- CPWR Online ordering form
- QR Codes (limited success)

The National Campaign
Prevent Falls in Construction
A Social Network Analysis
Executive Summary



CPWR THE CENTER FOR CONSTRUCTION RESEARCH AND TRAINING
Center on Network
SCHOOL OF PUBLIC AFFAIRS
UNIVERSITY OF COLORADO DENVER

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UCOR Holds Multi-Site Stand-Down

URS | CH2M Oak Ridge LLC (UCOR) is the Department of Energy's cleanup contractor for the DOE Oak Ridge Reservation, primarily focused on cleanup of East Tennessee Technology Park (the former Oak Ridge K-25 Site). They are also engaged in cleanup and waste management activities at other Oak Ridge Reservation sites.

2022 Stand-Down to Prevent Falls in Construction
Analysis & Recommendations from OSHA's Certificate of Participation Data & CPWR's Online Ordering Form¹

In 2022, 3,409 stand-downs reached 455,175 workers. Commercial construction was the most selected type of construction for both stand-downs held (41%) and workers reached (50%).

Stand Downs Held by Type of Construction

Type of Construction	Count	Percentage
Commercial Construction	1,395	41%
Government	829	24%
Highway	542	16%
Non-Construction	344	10%
Other Construction	232	7%
Residential Construction	67	2%

Workers Reached by Type of Construction

Type of Construction	Count	Percentage
Commercial Construction	226,097	50%
Government	107,448	24%
Highway	61,314	13%
Non-Construction	34,729	8%
Other Construction	5,266	1%
Residential Construction	20,321	4%

Texas (358), California (231), Florida (178), New York (176), and Pennsylvania (170) held the most stand-downs. Texas (61,861), California (30,905), Louisiana (14,705), Florida (14,214), and Pennsylvania (13,018) reached the highest number of workers in their events.

Map showing Stand-Down participation by state. States with the highest participation are Texas, California, Florida, New York, and Pennsylvania.

171 stand-downs were held internationally, reaching 118,567 workers abroad.

Total Stand-Downs Held

Year	Total Stand-Downs Held
2019	3,435
2020	2,535
2021	2,924
2022	3,409

Total Workers Reached

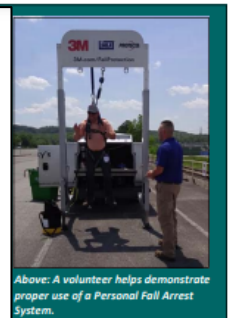
Year	Total Workers Reached
2019	457,251
2020	416,430
2021	453,362
2022	455,175

Stand-Down participation is back up! In 2020, when the pandemic began, participation fell.

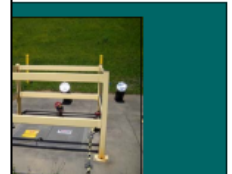
Compared to 2019, the final Stand-Down before the pandemic began in 2020, the total number of stand-downs held and workers reached has almost fully recovered as of 2022.

¹Stand-Down participants order stickers and hazard alert cards from CPWR's online ordering form. CPWR analyzes order data as an indicator of Stand-Down participation.

PLAN PROVIDE TRAIN
Three ways to prevent falls



Events, injuries or deficiencies situations identified as unsafe by workers are safer before ever relying on PPE by participating in the photo examples below.

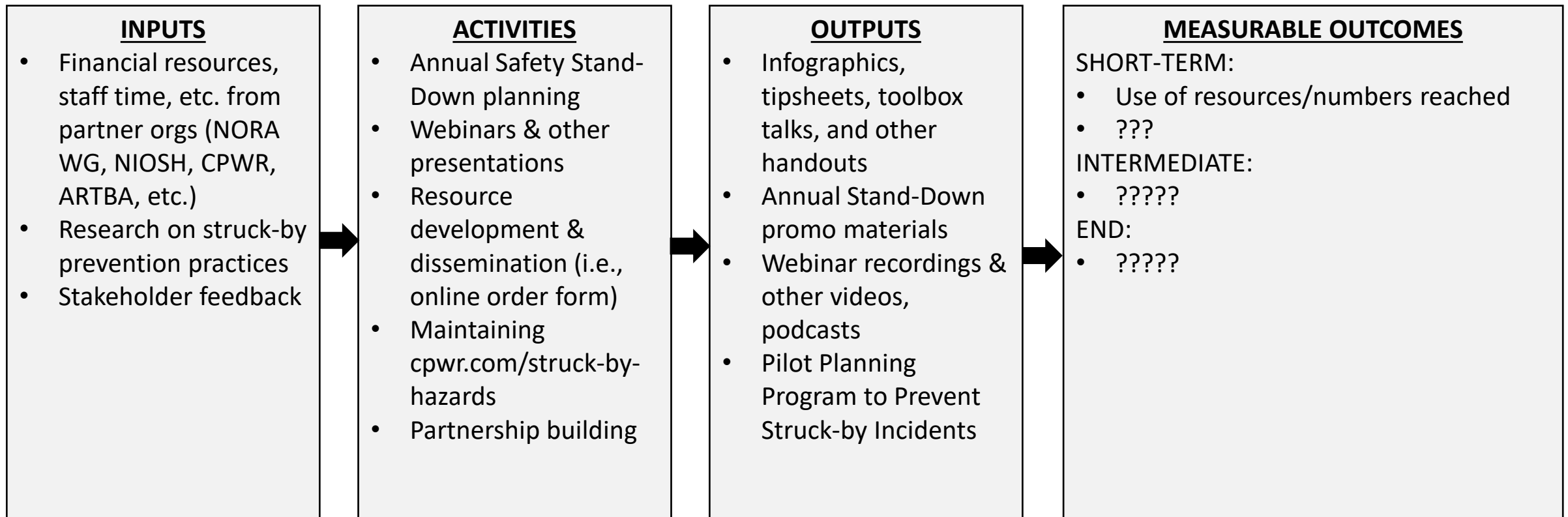


Struck-by Work Group

Outputs & Outcomes

4 Years of Struck-by Stand-Downs

Originated by the NORA Construction Sector Council Struck-by Work Group in 2020



Measuring Reach & Outcomes

- Website metrics
- Social media engagement
- Webinar views & satisfaction surveys

The National Stand-Down to Prevent Struck-by Incidents April 17-21, 2023

STOP work. TALK about hazards. ACT on what you learn.
#standdown4struckby #workzonesafety #liftzonesafety #StopTalkAct

Struck-by incidents are the 2nd leading cause of workplace deaths & the leading cause of nonfatal injuries among construction workers. The National Stand-Down to Prevent Struck-by Incidents is a voluntary event for employers to pause work to talk directly to employees about how to prevent "Struck-by Hazards".

Kick-Off Webinar for the Stand-Down: Mon. April 17th.
Save the date & [register here](#).

This is a brief summary of resources found on [our Struck-by page](#).

Toolbox talks, infographics & webinar recordings:

- ❖ Dropped Objects
- ❖ Work Zone Safety
- ❖ Lift Zone Safety
- ❖ Heavy Equipment

Additional resources:

- ❖ CPWR Data Bulletins
- ❖ [FACE](#) reports
- ❖ [Struck-by YouTube](#)
- ❖ Preventing head injuries
- ❖ Aerial lift simulator
- ❖ Trenching & excavation
- ❖ Nail gun safety



FOR MORE INFORMATION VISIT:
[HTTP://CPWR.COM/STRUCK-BY-HAZARDS](http://CPWR.COM/STRUCK-BY-HAZARDS)



How to improve the impact of CON Sector Council

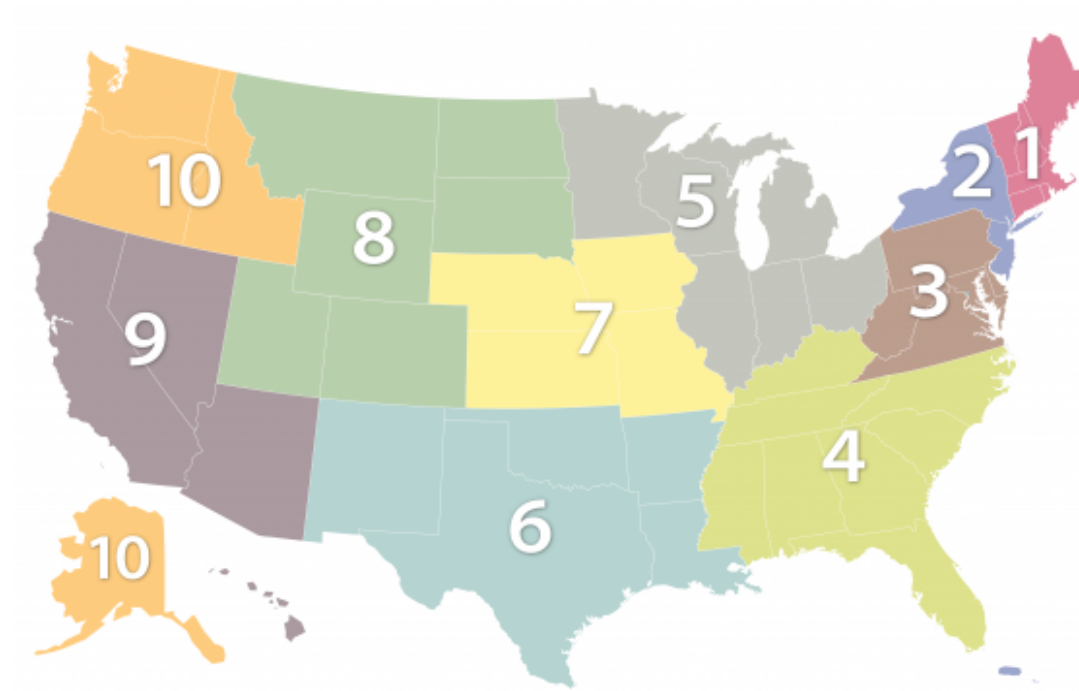
- Realistically we are looking for short-term outcomes and intermediate outcomes
- How can we get our existing outputs, and new outputs as needed, used to:
 - Ideally - change behavior (intermediate outcome)
 - First step may be to increase awareness (short term outcome)

How to improve the impact of CON Sector Council - Brainstorming

- Idea of setting up regional groups to expand our reach discussed in Struck-by Workgroup in September
 - Organize CON Sector Council groups in different regions of the country
 - Perhaps could connect the regional groups with the various NIOSH extramural centers and researchers.
 - Many different associations have state chapters.
 - Increase spread regionally; could also do more sharing at a local level with stand-downs, more folks at a local level involved – making our efforts as local as possible

New Concept: NIOSH NORA Construction Sector Council

Regional Support Centers



Concept:

1. Each NIOSH “Region” would have Sector Council support centers/groups comprised of volunteers from the various construction industry segments, (e.g., Commercial, Heavy/Civil, Homebuilding, Electrical, Utilities, etc.)
2. We would select a “chair” for each region to ensure the groups meet to discuss assigned topics and provide information based on regional needs.
3. Groups would promote and distribute Sector Council meetings, webinars, products, etc.
4. Groups would inform the Sector Council of research and research-to-practice needs in their local jurisdictions.

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- 1. Each “Region” would have Sector Council support centers/groups comprised of volunteers from the various construction industry segments, (e.g., Commercial, Heavy/Civil, Homebuilding, Electrical, Utilities, etc.)
- 2. We would select a “chair” for each region to ensure the groups meet to discuss assigned topics and provide information based on regional needs
- 3. What would ‘regional groups’ do?
 - Promote and distribute Sector Council meetings, webinars, products, etc.
 - Inform the Sector Council of research and research-to-practice needs in their local jurisdictions
 - Stand-downs
 - ? Other....

extra



Logic Model Headings	Definition
Inputs	Planning inputs: stakeholder input surveillance and intervention data, and risk assessments Production inputs: intramural and extramural funding, staffing, management structure, and physical facilities
Activities	Efforts and work of the program, staff grantees, and contractors
Outputs	Direct products of NIOSH programs that are logically related to the achievement of desirable and intended outcomes
Intermediate outcomes	Actions by stakeholders in response to NIOSH products or efforts
End outcomes	Improvements in safety and health in the workplace that can be attributed to NIOSH efforts
External factors	Actions or forces beyond NIOSH's control with important bearing on moving research results into practice into the workplace

<https://journals.sagepub.com/doi/10.1177/1098214018767046>