### **Centers for Disease Control and Prevention**



# What do you mean by "evidence" and why should I care? Using evaluation & other data to improve your programs

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"My question is: Are we making an impact?"

# **Evaluation Is a Critical Agency Function? Really?**

"Agencies should use evaluation as a critical tool to learn and improve, rather than more narrowly to demonstrate whether something works or not.

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An orientation toward evaluation that acknowledges failure and emphasizes learning and continuous improvement is essential to meet the vision of an evidence-based government."

OMB Memo M-21-27, June 2021

Evidence-Based Policymaking: Learning Agendas and Annual Evaluation Plans https://www.whitehouse.gov/wp-content/uploads/2021/06/M-21-27.pdf

### What is Evaluation?

An assessment using systematic data collection and analysis of one or more programs, policies, and organizations intended to assess their effectiveness and efficiency

Foundations for Evidence-based Policymaking Act of 2018 Evidence Act§ 101(e)(4)(B) (citing 5 U.S.C. § 311(3))

# What do we mean by "evidence"?

#### **Policy Analysis**

Analysis of data, such as general purpose survey or program-specific data, to generate and inform policy, e.g., estimating regulatory impacts and other relevant effects

#### **Foundational Fact Finding**

Foundational research and analysis such as aggregate indicators, exploratory studies, descriptive statistics, and basic research

#### **Program Evaluation**

Systematic analysis of a program, policy, organization, or component of these to assess effectiveness and efficiency

#### Performance Measurement

Ongoing, systematic tracking of information relevant to policies, strategies, programs, projects, goals/objectives, and/or activities

OMB M-19-23: Phase 1 Implementation of the Foundations for Evidence-Based Policymaking Act of 2018: Learning Agendas, Personnel, and Planning Guidance

### Program and Evaluation must be integrated...

### Continuous Program Improvement cycle



Kidder & Chapel, 2018

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### **CDC Framework for Evaluation in Public Health**



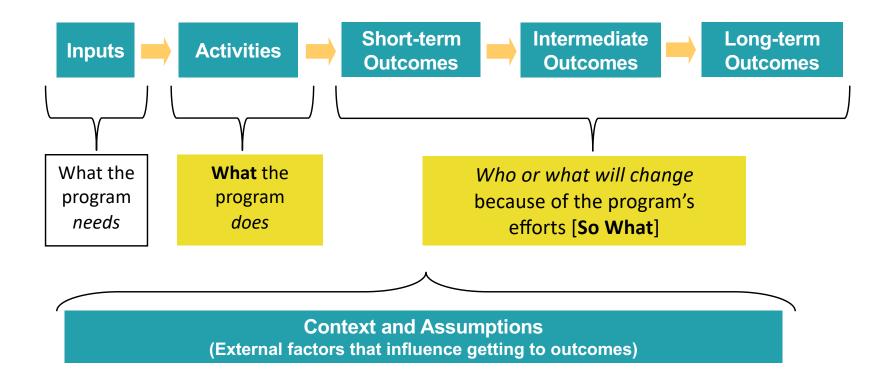
### **Steps**

- Engage stakeholders: Collaborate with key groups who need to be involved for it to make a difference
- **2.** <u>Describe the program</u>: Draw a complete picture of the program activities and intended outcomes
- 3. Focus the evaluation: Decide key evaluation questions
- 4. <u>Gather credible evidence</u>: Determine measures/indicators, choose and implement data collection methods
- 5. <u>Justify conclusions</u>: Review and interpret data/evidence to determine success or failure
- **6.** <u>Use lessons learned</u>: Use evaluation results for program improvement and decision making

### **Standards**

- <u>Utility</u>: Program stakeholders find evaluation processes and products valuable in meeting their needs
- <u>Feasibility</u>: Increase evaluation effectiveness and efficiency
- Propriety: Support what is proper, fair, legal, right and just in evaluations
- Accuracy: Increase dependability and truthfulness of evaluation representations

# Describing the Program Using a Roadmap/Logic Model



#### CDC Data Modernization Initiative | A Roadmap of Activities and Expected Outcomes



#### **ACTIVITIES**

If we (CDC and partners) do this ...

### COORDINATE PEOPLE AND SYSTEMS

Create interoperable systems: federal, state, local, and healthcare

Coordinate investments, decisions, and policies across CDC and with partners

Make data sharing easier through common policies, practices, and standards

Advance academic and private partnerships

#### ACCELERATE DATA FOR ACTION

Identify data for priority public health needs

Upgrade and modernize IT infrastructure

Strengthen the data science workforce

Adopt open standards and tools while protecting data security

Translate data into evidence-based recommendations

#### SUPPORT STRATEGIC INNOVATION

Seek partner-driven data solutions

Develop next-generation tools (e.g., modeling, visualization, predictive analysis, machine learning)

Strengthen predictive analytics and forecasting

### SHORT-TERM OUTCOMES

... then we expect these changes to occur ...

Increased collaboration, communication, and messaging among CDC and partners

Reduced data collection and reporting burden at state, tribal, local, and territorial levels

Improved data sharing and interoperability through common standards like HL7® FHIR®

Increased capacity to quickly analyze, interpret, and act on data

Increased electronic reporting and specific enhancements to flagship CDC surveillance systems

Stronger workforce in data science, analytics, modeling, and informatics

Targeted real-time communication of data and results

Integration and use of data from new or non-traditional sources

Improved pathways to explore, develop, and deploy next-generation technologies

Quick, continued data analysis with adjustment of modeling in real time

### INTERMEDIATE OUTCOMES

... which will lead to ...

Effective coordination on complex health and emergency response challenges

Timely and complete data reporting to CDC

Efficient, secure data access and exchange between systems across the country

A more comprehensive picture to improve decision-making and protect health for all

Real-time, linked systems that recognize threats early to inform timely response

A highly skilled workforce that applies state-of-the-art data skills and tools

High-quality information and guidance to protect people's health

Open-source, enterprise-level technologies and coordinated systems

New approaches to address present and future threats

### LONG-TERM OUTCOMES

.. our ultimate goals.



CDC can rapidly identify and effectively mitigate emerging threats



Trusted data promotes evidence-based behaviors, interventions, and solutions to protect health



Every American has equal opportunity to attain the highest level of health possible



All people have the right information at the right time to make decisions



Our country is better prepared for, and protected from, all types of public health threats

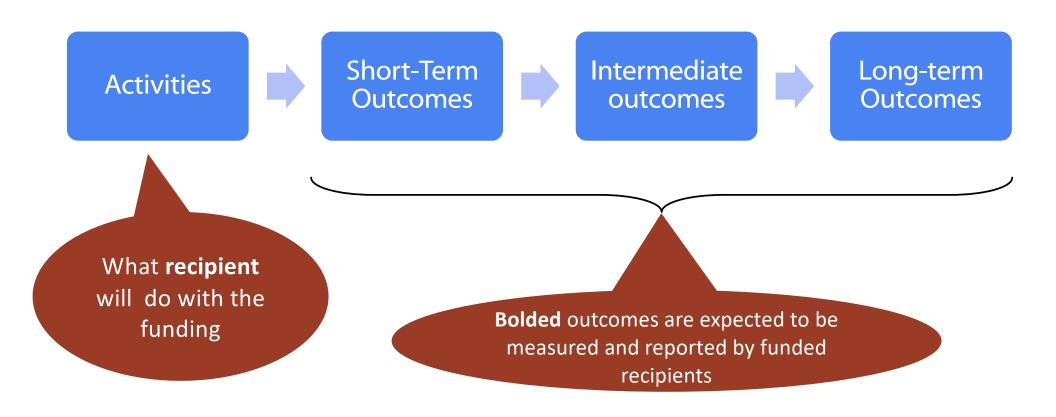
# What does this mean in practice?

- Evidence-building functions and activities are included in program and policy design <u>from the beginning</u>, rather than as an afterthought.
- Taken together, evidence-building activities strengthen ability to use data for improved decision-making and to invest in what works

# Data and evidence in CDC funded programs: Notice of Funding Opportunity (NOFO)

- NOFO: Announcement of funding availability and inviting applications.
- Includes information on eligibility, submission requirements, and evaluation criteria.
- Key components include activities, outcomes, monitoring and evaluation

## Simplified logic model in NOFO



# **Logic Model frames NOFO sections**

NOFO logic model serves as the roadmap/outline and frames the narrative sections that follow including:

- Purpose
- Strategies and Activities
- Outcomes
- Work Plan
- Evaluation and Performance Measurement (aka M&E)



### **Evaluation & Performance Measurement Section**

- Performance measures that recipients collect, track, and report to CDC
  - Process measures track implementation of recipient strategies and activities
  - Outcome measures for the bolded period of performance outcomes in logic model to track progress toward achieving expected effects or changes
- Evaluation studies conducted by CDC, required for recipients, or topics recipients may choose to conduct with the funding
- How CDC and/or recipients will use evaluation and performance measures data
  - Demonstrate achieving NOFO outcomes, continuous program improvement, highlight successes that could be scaled up, etc.

### Do you have any other fun reading materials?

Foundations for Evidence-based Policymaking Act of 2018

#### **OMB Memos:**

- OMB M-19-23, July 2019: Phase 1 Implementation of the Foundations for Evidence-Based Policymaking Act of 2018: Learning Agendas, Personnel, and Planning Guidance
- OMB Memo M-21-27, June 2021: Evidence-Based Policymaking: Learning Agendas and Annual Evaluation Plans

#### **HHS** documents:

- HHS Evidence-building Plan: FY2023-2026
- HHS Capacity Assessment: FY 2023-2026
- HHS Evaluation Plan 2024
- Evaluation Policy for the Department of Health and Human Services

#### **Evaluation.gov**

Evaluation.gov | Celebrating Five Years of the Evidence Act

# Thank you!

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For more information, contact CDC 1-800-CDC-INFO (232-4636) TTY: 1-888-232-6348 www.cdc.gov

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

