
CDC Best Practices Workgroup Definitions, Criteria, and Associated Terms

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Purpose

This document provides the recommendations put forward by the CDC Best Practices Workgroup convened by the Office for State, Tribal, Local, and Territorial Support (OSTLTS) to develop:

- A definition of “Best Practices” and related evaluation criteria able to be adopted for use throughout CDC and across all areas and services within public health
- A high-level plan for using the definition and related criteria to solicit, evaluate, and disseminate best practices

This work is recommended for use by CDC along with principles, criteria and ladder terms with thresholds and scoring in determining CDC “Best Practices”.

Background

The Office for State, Tribal, Local, and Territorial Support (OSTLTS) was formed in 2010 to improve the performance and capacity of the public health system. A key priority for OSTLTS is improving the identification, dissemination, and adoption of best practices to state, tribal, local, and territorial (STLT) public health organizations. However, lack of a consistent definition of practices and the varying levels of evidence to support them hinders STLT agencies’ ability to choose the most appropriate course of action to address their public health priorities.

A critical challenge to the development of a best practice strategy for CDC is that various components of public health differ widely in terms of maturity, amount of available research, resources, and priority level. Some of the highest priority areas with the biggest potential impact on public health have a limited evidence base but STLT health agencies and their partners still must act while best practices are being formulated. One or more field-tested or research-tested strategies may show promise, and it is critical to encourage the further evaluation of these strategies, with the hopes of moving worthy strategies towards best practice status. Additionally, some best practices may not remain so over time because of changes in public health standards or refinement of interventions.

In June of 2010, OSTLTS convened an agency-wide workgroup to address these challenges through the development of a consensus-based definition that can be consistently applied across all the areas of public health practice that CDC funds. Nominations for representatives to the workgroups were solicited by Division Directors across the agency (See Appendix II: List of Workgroup Members). Because of the overwhelming interest, representatives were divided into two sub-workgroups that completed the following tasks over the course of 8 meetings:

- Sub-Workgroup 1 – developed a definition, criteria, ladder terms, and thresholds for best practices.

- Sub-Workgroup 2 --developed a high-level plan for soliciting, evaluating, and disseminating best practices based on the identified criteria and definition.

The workgroup reviewed the current literature about best practices from various governmental and non-governmental sources (See Appendix I: Bibliography) and determined that the definition of a best practice must include broader evidence criteria related to “what works” so that both evidence of effectiveness and public health impact are considered.

Public health impact for the purpose of this document refers to the effect of an intervention on the health of a population as measured across five dimensions:

1. Its *effectiveness* in improving the outcome
2. The proportion of settings that *adopt* the intervention,
3. The extent to which these settings *implement* the intervention as intended and
4. *Maintain* it over time, and
5. The proportion of the priority population that the intervention *reaches*

Practice includes field or research-tested

- interventions
- programs
- strategies
- policies
- procedures
- activities

that are intended to effect a change.

Practices may aim to improve specific public health outcomes, such as morbidity, mortality, disability, or quality of life, or they may be involved in achieving other aspects of the 10 essential services of public health, or effectively providing public health services.

Definition

The workgroup recommends the definition of best practices as a “*continuum of practices that represents the ongoing application of knowledge about what is working to improve desired outcomes in a given context.*” This definition reflects levels of effectiveness and evidence of public health impact.



The best practices continuum provides a well-defined range of practice that allows an intervention, program, strategy, policy, procedure, or activity to enter the practice ladder at any point and progress through the continuum as further evidence is gathered.

Emerging—these practices are supported by field-based summaries or evaluations in progress that have plausible effectiveness, feasibility, reach, sustainability, and transferability.

Promising—these practices are supported by intervention evaluations without peer review of practice or publication that have evidence of effectiveness, feasibility, reach, sustainability, and transferability.

Best—these practices are supported by intervention evaluations or studies with peer review of practice or publication that have evidence of effectiveness, feasibility, reach, sustainability, and transferability.

All practices considered across this continuum should reflect the following principles:

- **Ethically sound**—follows standards of social and professional conduct
- **Relevant**—focuses on the problem to be addressed and strives for both cultural and contextual appropriateness
- **Efficient**—strives to make optimal use of resources

Criteria and Questions

Five criteria have been identified as most important when determining if a practice is an emerging, promising or best practice. The workgroup recognizes these criteria are necessarily inter-related. To ensure that the focus remains on the key components of each criterion, a list of questions have been developed that serve as examples of what individuals would ask to help evaluate how a practice rates on that particular criterion. These criteria and questions are listed in Table 1.

Criteria:

- Reach
- Effectiveness
- Transferability
- Feasibility
- Sustainability

Table II provides examples of evidence that can be used for scoring. The cutoff guidance for the scoring criteria places emphasis on both effectiveness and reach. A practice cannot be considered “best” if it does not score at least a 3 on effectiveness and reach, and at least a 2 on feasibility, sustainability, and transferability. To be considered a best practice the score must total 15-20.

Criteria Score Cutoff Guidance

Criteria	Emerging	Promising	Best
Effectiveness	1	2	3-4
Reach	1	2	2-4
Feasibility	1	2	3-4
Sustainability	1	2	2-4
Transferability	1	2	2-4
Total	5-9	10-14	15-20

Table I. Criteria, Questions, Rating and Scoring

Table I provides examples of questions for each criterion and a rating scale that can be used to determine if that criterion was met. Other questions and considerations may be used by subject matter experts to make appropriate decisions as part of evaluating the criteria.

Criterion and Definition	Questions for Consideration ¹	Rating Question	Rating Scale (see table below)
Effectiveness: Extent to which the practice achieves the desired outcomes	<ul style="list-style-type: none"> • What is the consistency of the evidence? • What is the magnitude of the effect size (not just whether it is statistically significant but whether it has public health significance)? • Are the outcomes relevant to public health and, if so, how much? • What are the benefits versus risks/potential for harm? 	<i>Based on the evidence, to what extent does the practice achieve the desired outcomes?</i>	1 2 3 4 Unable to Assess 0 if it does not meet the bar for any criteria. Comments: _____ _____ _____
Reach: Extent to which the practice achieves the desired outcomes for the intended population	<ul style="list-style-type: none"> • Who (or what) are the beneficiaries (or processes) that are affected? • What proportion of eligible people (or processes) is known to be affected by the practice? (calculate a “reach rate” based on available data) • How many people (or processes) could ultimately be affected (projected reach)? • How representative are the groups (or processes) currently reached compared to those ultimately affected by the problem? • Is there external validity or generalizability? • Is there the ability to achieve health equity? 	<i>Based on the evidence, to what extent does the practice achieve the desired outcomes for the intended target population</i>	1 2 3 4 Unable to Assess 0 if it does not meet the bar for any criteria. Comments: _____ _____ _____
Feasibility: Extent to which the practice can be implemented	<ul style="list-style-type: none"> • Are there barriers and facilitators to implementing the practice? • Does the practice streamline or add complexity to existing procedures? • Does implementation of the practice require 	<i>Based on the evidence, to what extent can the practice be implemented given available resources?</i>	1 2 3 4 Unable to Assess 0 if it does not meet the bar for any criteria. Comments: _____

¹ Brennan and Castro. See reference 3.

Criterion and Definition	Questions for Consideration ¹	Rating Question	Rating Scale (see table below)
	organizational change? • What resources are absolutely necessary for the practice to be used in the field?		_____ _____ _____
Sustainability: Extent to which the practice can be maintained and achieves desired outcomes over time	<ul style="list-style-type: none"> • To what extent is the practice designed to be implemented into existing programs and/or standard operating practices? • To what extent is the practice designed to be incorporated into existing networks and partnerships? • Where tested, to what extent was the practice continued? • What were the longer-term effects? • What is the practicability of securing ongoing funding/support? • Is there maintenance of/or improvement in effects over time—even without ongoing funding/support? 	<i>Based on the evidence, to what extent does the practice deliver its intended benefits and/or improve benefits over time?</i>	1 2 3 4 Unable to Assess 0 if it does not meet the bar for any criteria. Comments: _____ _____ _____
Transferability: Extent to which the practice can be applied and/or adapted across a variety of contexts.	<ul style="list-style-type: none"> • To what extent has the practice been replicated across similar contexts and achieved the desired results? • Is this practice replicable and adaptable? • When the practice is applied in different contexts, have the essential components of the practice that must be included (without alteration) been identified? • Have the adaptable elements that can be changed for different contexts while still achieving the desired results been identified? • Have the adaptable elements been changed in different contexts and the practice is still shown to be effective? • Have the political, social and economic climates been considered? 	<i>Based on the evidence, to what extent can the practice be applied and/or adapted across a variety of contexts?</i>	1 2 3 4 Unable to Assess 0 if it does not meet the bar for any criteria. Comments: _____ _____ _____

Table II. Evidence Base for Scoring—1-4

	Evidence base to Score 1	Evidence base to Score 2	Evidence base to Score 3	Evidence base to Score 4
Rating Scale:	<p>1. Criteria are met to a small extent by evidence that may include the following sources: Expert opinion, policy analyses or briefs, websites, marketing or dissemination materials, professional standards of practice. Examples: pilot studies; case studies; evaluability assessments; state, community, or school demonstration projects; NIH CRISP database; intervention programs</p>	<p>2: Criteria are met to some extent by evidence that may include the following sources: Abstracts or presentations, evaluation reports, books or book chapters, unpublished dissertations/theses or expert consensus. Examples: pilot studies, case studies, health impact assessments, intervention research</p>	<p>3: Criteria are met to a great extent by evidence that may include the following sources: Studies with peer review * that are not part of a systematic or narrative review. Based on Research Tested Intervention Programs, published articles, technical reports; or books or book chapters. Examples: journal articles and state or federal government reports</p>	<p>4: Criteria are met to a very great by evidence that may include the following sources: Authoritative, rigorous systematic review (two or more studies depending on design and execution). Based on published reviews or meta-analyses. Examples: Community Guide or Cochrane reviews.</p>

**Peer review is one of the important procedures used to ensure that the quality of published or disseminated information and the supporting evidence used to inform research and practice meets the standards of the scientific and practitioner communities, with the ultimate goal of helping improve public health practice, policy making and adoption of best practices. Peer review involves an organized and methodical review of a draft practice or publication for quality by professionals who are subject matter experts with knowledge and expertise equal to that of those whose work they are reviewing. The selection of participants in a peer review should be made with due consideration of independence and conflict of interest. Peer review is only the first step in the acceptance of a practice. Dissemination allows others to compare their own results and to attempt to replicate the results of others--both extremely important steps in validating new discoveries or theories."*

Appendix I: Bibliography

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<http://www.er.doe.gov/bes/rc99099.pdf>; <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr;sid=e72df910e960648f8c54df0dd378ee8b;rgn=div5;view=text;node=28%3A1.0.1.1.3.5;idno=28;cc=ecfr#28:1.0.1.1.35.2.32.4>; and http://pdf.usaid.gov/pdf_docs/PNADC110.pdf)
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Appendix II: Best Practices Workgroup Members

Sub-Workgroup 1-Definition, Criteria, Ladder terms and Rating

Lynda Anderson, PhD
Healthy Aging Program Director
Division of Adult and Community Health

Cecilia Curry
Policy Officer
Division of Healthcare Quality Promotion

Heather Devlin, MA
Health Scientist
Division of Diabetes Translation

Marti (Martha) Engstrom
Team Lead, Evaluation
Epidemiology Branch
Office on Smoking and Health
National Center for Chronic Disease
Prevention and Health Promotion

Christopher Kochtitzky
Assoc. Director for Program Development
Division of Emergency and Environmental
Health Services

Jim Kucik, MPH
Health Scientist
Division of Birth Defects and Developmental
Disabilities

Shawna L. Mercer, M.Sc., Ph.D.
Director, The Guide to Community Preventive
Services
Chief, The Community Guide Branch
Acting Director, Division of Community
Preventive Services

Terry Pechacek
Associate Director of Science
Office of Smoking and Health

Michael Schooley, MPH
Branch Chief, Applied Research and Evaluation
Division of Heart Disease and Stroke Prevention

John P. Sestito, J.D., M.S.
Surveillance Program Coordinator
Division of Surveillance, Hazard Evaluations and
Field Studies (DSHEFS)
National Institute for Occupational Safety and
Health (NIOSH)

Nicole Smith
CAPT, US Public Health Service
Associate Director for Policy, Influenza Division
NCIRD

Susan Snyder, PhD, MBA
Senior Economist/Team Lead
Division of Laboratory Science and Standards
Office of Surveillance, Epidemiology &
Laboratory Services

Arjun Srinivasan
Medical Office
Division of Healthcare Quality Promotion

Diane Thompson, R.D., MPH
Senior Health Scientist
Program Development and Evaluation Branch
Division of Nutrition, Physical Activity and
Obesity

Keith Williams
Public Health Advisor
Office of the Director
NCIRD

Pascale Wortley, MD, MPH
Chief, Health Services Research and Evaluation
Branch
Immunization Services Division

**Sub-Workgroup 2- Plan for Solicitation,
Evaluation and Dissemination**

Joanne Andreadis, PhD
Innovation Team Lead
ODAS/ISPA

Jacqui Butler
Public Health Analyst
Division of Human Development and Disability

Charles Collins, PhD
Science Application Team Leader
Capacity Building Branch
Division of HIV/AIDS Prevention, NCHHSTP

Peter Crippen
Public Health Advisor
Division of Emerging Infections and Surveillance
Services

Amy DeGross, PhD, MPH
Program Evaluator
Division of Cancer Prevention and Control

Teresa Daub, MPH
Public Health Advisor
Office for State, Tribal, Local and Territorial
Support
Technical Assistance Branch

Doğan Eroğlu, PhD
Associate Director for Communication Science
Office of the Associate Director for
Communication

Norm Fikes
Public Health Advisor
Division of Sexually Transmitted Diseases
Prevention

Asim Jani, MD MPH
Assistant Director, Preventive Medicine
Residency & Fellowship
OSELS/SEPDPO/DAS

John Kools, MS
Health Scientist
OADS/ISPA

Glenn R. Moore, MISM, FAC-COTR, PMP
Project Manager
Division of Informatics Solutions and Operations
Public Health Informatics and Technology
Program Office,
Office of Surveillance, Epidemiology, and
Laboratory Services

Margaret Moore
Public Health Advisor
DACH

Richard W. Puddy, PhD, MPH
Branch Chief, Program Implementation and
Dissemination Branch
Division of Violence Prevention

Donald Sharp MD, DTM&H
CAPT, US Public Health Service
Deputy Director, Food Safety Office
National Center for Emerging and Zoonotic
Infectious Diseases (Proposed)

Craig Thomas
Health Scientist
OPHPR/DSLRL

Michele Wilson
Acting Deputy Director, Community Guide
OSELS

Jennifer Wright
Medical Officer
NCZVED

Facilitators:

Mamie Jennings Mabery, MA, MLn
Lead for Communities of Practice
Office for State, Tribal, Local and Territorial
Support
Knowledge Management Branch

Lorine Spencer, RN, BSN, MBA, PhD
Team Lead for Best Practices
Office for State, Tribal, Local and Territorial
Support
Knowledge Management Branch

Kimberly Wilson, BS
Health Communications Specialist
Office for State, Tribal, Local and Territorial
Support
Knowledge Management Branch

Point of Contact:

Lynn Gibbs Scharf, MPH, Branch Chief,
Knowledge Management Branch, OSTLTS