



Department
of Health



New York State Public Health Corps (NYSPHC) Fellowship Program

Educational Series:

Data-Based Decision Making

February 8th, 2023

Welcome!

Agenda

- NYSPHC Program Overview
- Data-Based Decision Making
- Questions
- Closing Evaluation/Program Updates

NYSPHC Program Overview



January 2021 Establishment of NYSPHC

New York State will launch the New York State Public Health Corps (NYSPHC) that will:

- Enhance public health capacity to support COVID-19 vaccination operations
- Increase preparedness to respond to future public health emergencies

Working with Local Health Departments and NYS Department of Health (NYSDOH), NYSPHC will work to recruit and deploy Public Health Fellows to be assigned in communities across New York State


NYSPHC Core Competencies

1. Effective Communication
2. Data-Based Decision Making
3. Justice, Equity, Diversity, and Inclusion
4. Budget and Financial Management
5. Change Management
6. Systems & Strategic Thinking
7. Community Engagement
8. Cross Sectoral Partnerships
9. Policy Engagement
10. Specialized Skills

Educational Series

- Sessions on core competencies and public health topics
- Guest speakers from NYSDOH, institutions of higher education and more

NYSPHC Educational Series



The New York State Public Health Corps (NYSPHC) Educational Series is excited to offer live monthly educational sessions addressing the Core Competencies of Public Health!

Educational sessions will take place on the second Wednesday of every month from 12-1 PM

Learning Objectives:
To provide program participants with opportunities to expand their skill sets and knowledge on emerging public health activities, programming, and state priorities. The *PHWins* evidence-based core competencies provide the foundation for the NYSPHC education and training sessions for program participants to ensure an effective and knowledgeable public health workforce.

Topics to be covered:

- Budget and Financial Management**
- Policy Engagement**
- Data-Based Decision Making**
- Justice, Equity, Diversity, Inclusion (JEDI)**
- Change Management**
- Grant Writing**

Tentative Dates (12-1PM):

- December 14, 2022
- January 11, 2023
- February 8, 2023
- April 12, 2023
- May 10, 2023
- July 12, 2023

Each meeting will be 60 minutes long with about 40 minutes of content and 20 minutes of Q&A or discussion. Registrants will be provided with an agenda and learning objectives prior to the learning session. Recordings of the meetings will be posted to the [Training Resource Center website](#).

Registration details coming soon!

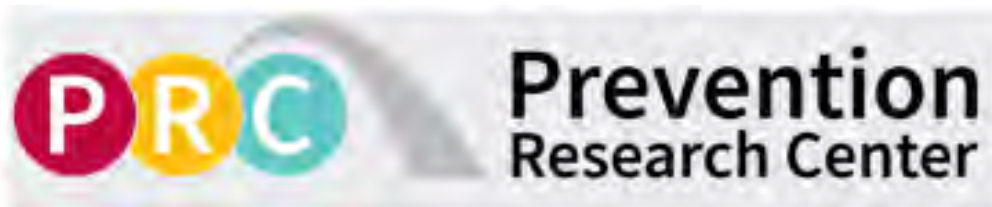
Questions? Please contact your Regional Fellowship Placement Coordinator for more details.

Evidence-based decision making in public health practice

Ross C. Brownson
Washington University in St. Louis

NYS Public Health Corps
Educational Series: EBDM

February 8, 2023





Public health
workers... deserve
to get somewhere
by design, not just
by perseverance.



-McKinlay and Marceau

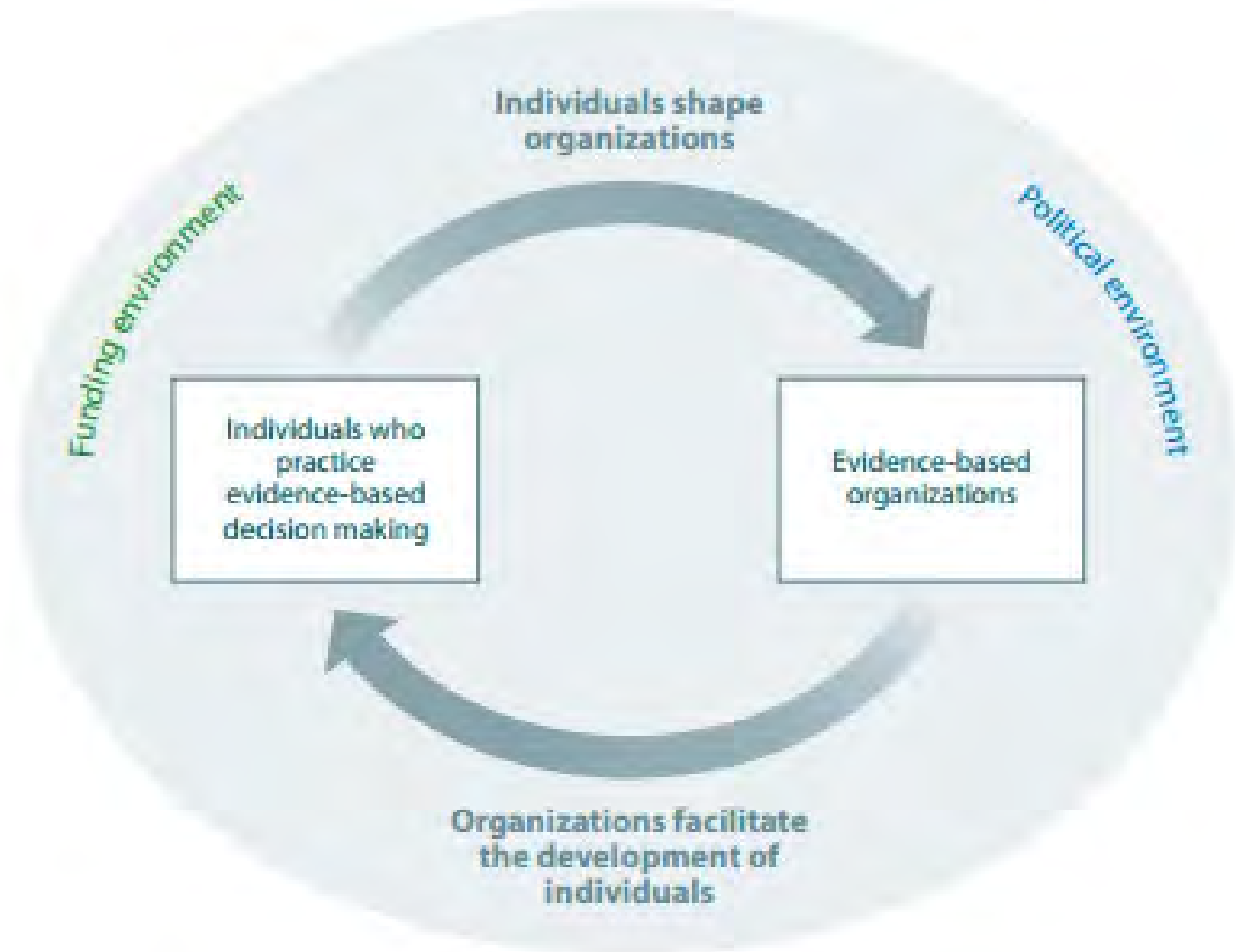
Learning Objectives

1. Describe the core principles of evidence-based public health (EBPH).
 - a. aka, data-based decision making
 - b. evidence-*informed* public health
 - c. follows, and learns from evidence-based medicine
2. Discuss ways to advance evidence-based approaches in public health practice.
3. Explain how, when, and where to use evidence in short- and long-term decision making.
4. Identify opportunities for individual and/or organizational activities to strengthen EBPH.



Core principles: The big picture...

Interrelationships Between Individuals and Organizations



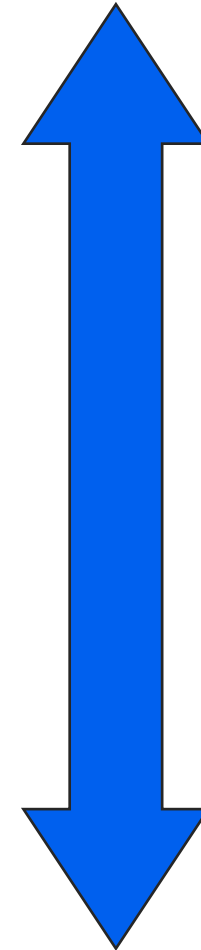
What is “evidence”?



What is “Evidence”?

- Scientific literature in systematic reviews
- Scientific literature in one or more journal articles
- Public health surveillance data
- Program evaluation data
- Qualitative data
 - Community members
 - Other stakeholders
- Professional judgment
- Media/marketing data
- Word of mouth
- Personal experience

Objective



Subjective

Like beauty, evidence is in the eye of the beholder...

What are the evidence domains?





Best available
research evidence

Environment and
organizational
context

Decision-making

Population
characteristics,
needs, values,
and preferences

Resources,
including
practitioner
expertise

Are we talking only of scientific evidence?





Because what you told me is absolutely

Yes, how did you know?

The problem

Because you don't know where you are, you don't know where you're going, and now you're blaming me.

Yes
You must
policy n



Policy Paradox and Challenges

- Perhaps the largest effect on health and equity
 - Yet the inverse evidence law
- Some policies will worsen equity
- Macro policies may influence micro programs and policies
- *In evaluation, lack of control over the intervention (policy)*
- Time frame may be much shorter for policy maker needs—
but much longer for policy outcomes
- Need for new skill sets and partners

How are decisions often made in public health settings (your data; $n = 50$)?

- Resources/funding availability (C-E) [88%]
- Staff capacity [58%]
- Scientific evidence (e.g., peer reviewed literature/systematic reviews) [54%]
- Support from agency leaders [48%]
- Support from policy makers [22%]
- Existence of partner support (e.g., an established coalition) [22%]
- Support from the general public [18%]
- Media driven [6%]
- Maintaining the status quo [4%]

- Combined reasons, based in evidence

EB Decision-Making

- Understanding a *process*
- Finding existing evidence to make decisions
- Creating new evidence for decisions (when there is no—or insufficient—evidence, i.e., evaluate)

Some defining characteristics of EBPH

1. Making decisions based on the best available evidence (both quantitative and qualitative research)
2. Using data and information systems systematically
3. Applying program planning frameworks (that often have a foundation in theory)
4. Engaging stakeholders in assessment and decision making (helps advance health equity)
5. Conducting sound evaluation; and
6. Disseminating what is learned to key stakeholders and decision makers.

Incorporating concepts of health equity



Health & Social Justice → Health Equity

- ***Health equity*** means social justice in health (i.e., no one is denied the possibility to be healthy for belonging to a group that has historically been economically/socially disadvantaged).
- ***Health disparities*** are the metrics we use to measure progress toward achieving health equity (a reduction in health disparities is evidence that we are moving toward greater health equity).

Equality



Key distinction:

Everyone gets the **same opportunity (Equality)**

vs.

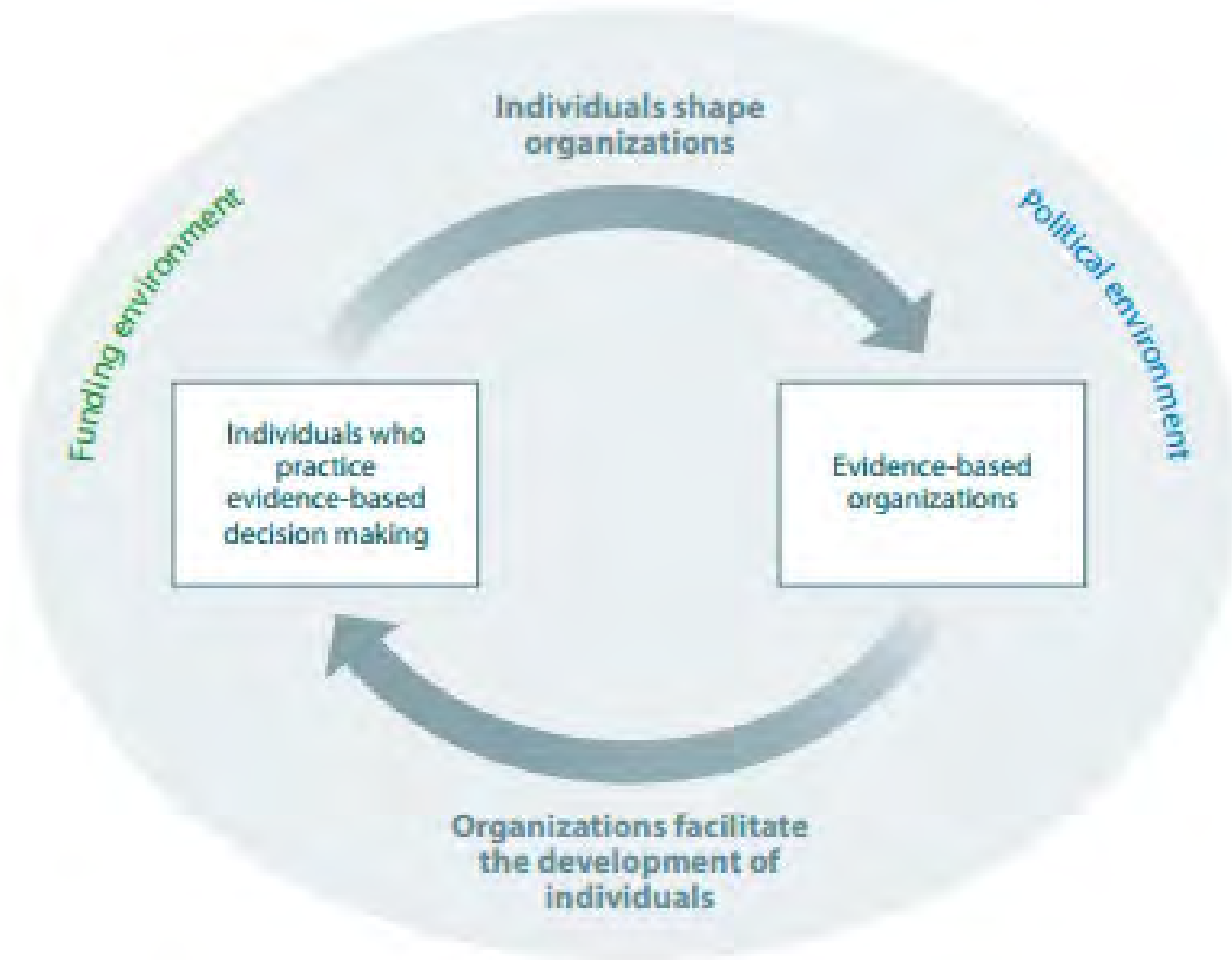
Everyone gets what they need to reach the **same end point (Equity)**



Advancing EBPH in your work...

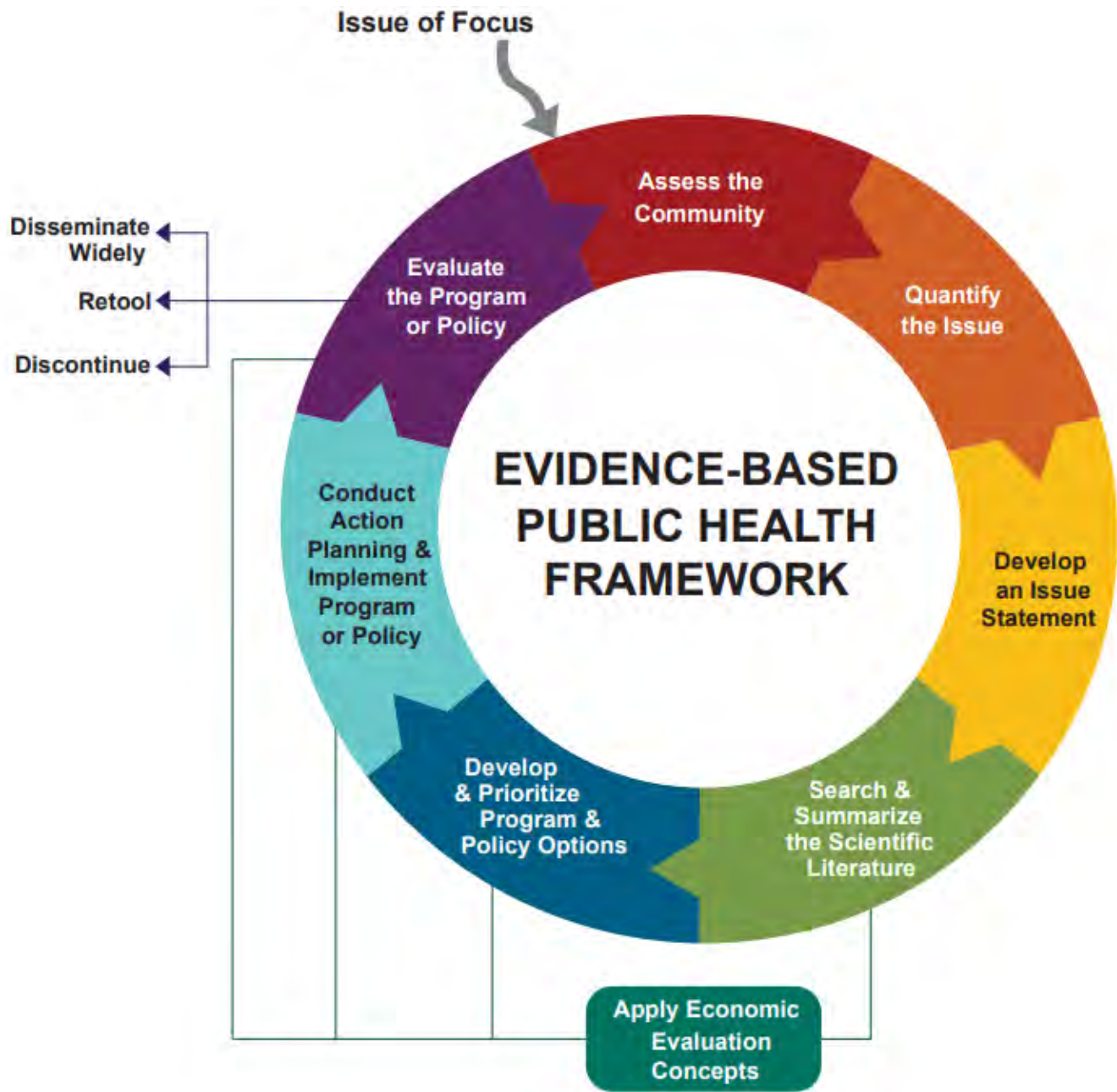


Focus on both individuals and organizations



Individual skill building





EBPH Training

- The aim of this course is to build skills in applying evidence-based decision making to improve population health and advance health equity.
- The course focuses on 10 skill domains to improve public health practice.

Course Evaluations



- Extensively evaluated with multiple designs and methods
 - Quasi-experimental, group randomized designs
 - QUAN and QUAL
- A recent pooled analysis of 723 course participants from 2005-2019* showed that:
 - 83% of participants see applications for EBPH course knowledge in their work
 - 81% of participants have become a better leader who promote evidence-based decision making
 - 72% of participants make scientifically informed decisions at work

*Jacob RR, Brownson CA, Deshpande AD, et al. [Long-Term Evaluation of a Course on Evidence-Based Public Health in the U.S. and Europe](#). *Am J Prev Med*. 2021;61(2):299-307.

What Supports Continuation

- Stable funding
- Leadership support in the health departments
- Champions for the training
- Dedicated staff time
- Institutionalization & clear roles for each partner
- External support for train-the-trainer scale up

Organizational capacity building



But, more than interventions... from organizational research, administrative evidence-based practices (A-EBPs)

- Agency (health department)-level structures and activities that are positively associated with performance measures (e.g., achieving core public health functions, carrying out evidence-based interventions).
- Developed based on literature from US state and local health departments

Why are A-EBPs relevant for HDs?

- Clearly linked to performance
- Domain 10 of Public Health Accreditation Board [PHAB] Standards: “Contribute to and apply the evidence base of public health”
- Ties in with extensive literature in business and management
 - Quality improvement
 - Prospective process to create a culture of continuous improvement
- Consider what can be modified and the time frame

Evidence-Based Public Health

Macro-level administrative evidence-based practices

<i>Domain and evidence-based practices</i>	<i>Description</i>
Health department oversight and infrastructure	
Jurisdiction	Population size of jurisdictions served
	Type of jurisdictions served (counties, cities)
Governance and authority	Local health board presence
	Local health board with policy-making role, not just advisory role
	Centralization of authority at state level or shared state and local control
	Statutory authority and responsibilities
Financial	
Allocation and expenditure of resources	Total LHD expenditures per capita
	LHD expenditures per staff FTE
	Diversity of funding sources
	Per capita taxes or allocation % of local taxes to public health
Workforce size and composition	
Staff size and composition	Staffing FTEs per capita
	Pre-service educational background, licensing, and certification
	Mix of disciplines

The *WHAT, A-EBPs (micro-level)*

(estimated time to change:
short <1 year; medium 1 to <3 years;
long 3+ years)

Administrative evidence-based practices domains

Domains: 1) workforce development, 2) leadership, 3) organizational culture and climate, 4) financial practices, 5) relationships and partnerships

- 19 items across these domains

- Workforce development
 - Training, access to technical assistance

- Leadership
 - Skills and background of leaders, values and expectations of leaders, participatory decision-making

Administrative evidence-based practices domains

- Financial practices
 - Allocation and expenditure of resources
- Organizational culture and climate
 - Access and free flow of information, support of innovation and new methods, learning orientation
- Relationships and partnerships
 - Interorganizational relationships, vision and mission of partnerships

Administrative Evidence-Based Practices

Workforce Development

- At least 60% of all participants indicated access to training in quality improvement, performance assessment, EBDM, and effective management practices.

Leadership

- 64% agreed that their work units had quality leaders.
- Only 12% indicated that their work unit had a plan to replace employees when they retire or move to a different work unit.

Financial Management

- 32% indicated that their work unit used economic evaluation in its decision making about programs and policies
- 28% indicated that their work unit had a variety of flexible, stable funding sources.

Administrative Evidence-Based Practices

Organizational climate/culture

- About half (46%) of participants indicated that their work unit strived to create an innovative environment
- 61% of participants indicated that their work unit had access to current research evidence.

Partnerships and collaborations

- 74% agreed that collaborative partnerships have missions that align with their work units
- 30% indicated that their work unit collaborated effectively with health plans such as Medicaid or insurers.

Opportunities to enhance EBPH



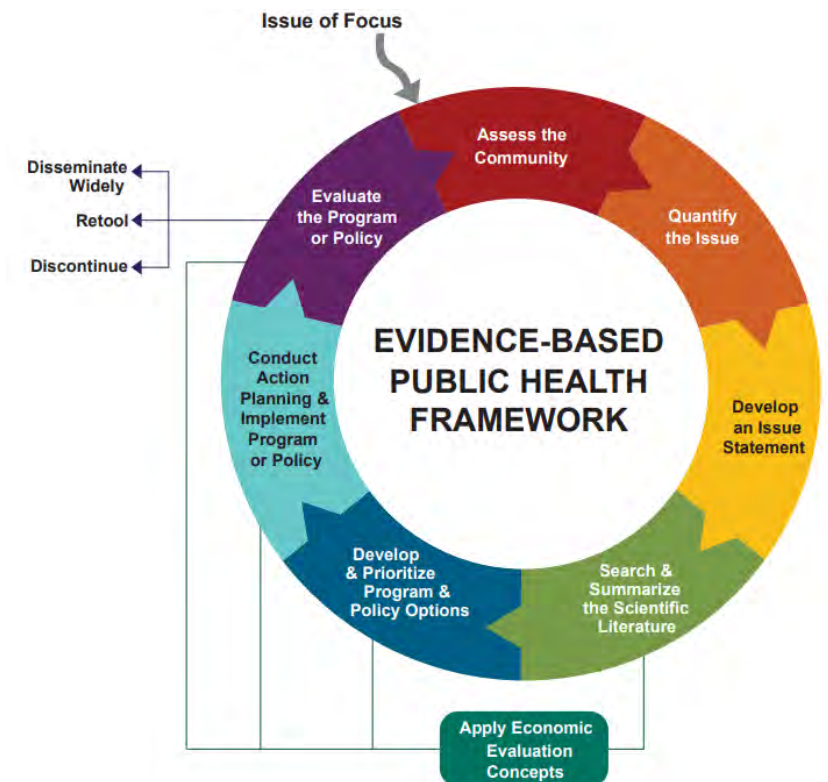
Building an evidence-based health department

1. Training involves organized education or skill-building sessions to a group of practitioners

Evaluating a train-the-trainer approach for improving capacity for evidence-based decision making in public health



Laura Yarter¹, Carol A. Brownson², Rebekah R. Jacob², Elizabeth A. Baker¹, Ellen Jones^{2,4}, Carsten Baumann², Anjali D. Deshpande², Kathleen N. Gillespie¹, Darrell P. Schaff¹ and Ross C. Brownson^{2,5*}



Building an evidence-based health department

2. Tools are media or technology resources for use in planning, implementing, and evaluating EBPH-related activities



Building an evidence-based health department

3. Assessment and feedback involves providing data-based feedback on EBPH-related performance

“what gets measured, gets done”

Multiple assessment tools

Fostering More-Effective Public Health by Identifying Administrative Evidence-Based Practices A Review of the Literature

Ross C. Brownson, PhD, Peg Allen, MPH, Kathleen Duggan, MPH, MS,
Katherine A. Stamatakis, PhD, MPH, Paul C. Erwin, MD, DrPH

American Journal of
Preventive Medicine

RESEARCH ARTICLE

Administrative Evidence-based Practices in State Chronic Disease Practitioners

Amy A. Eyler, PhD,¹ Cheryl Valko, MPH, RD,¹ Ramya Ramadas, MPH,¹
Marti Macchi, MEd, MPH,² Zarina Fershteyn, MPH,² Ross C. Brownson, PhD^{1,3}

*Contact Ross for tools

Program Sustainability Framework



Sample Program Sustainability Report

01/23/2014

[» Go to Next Steps](#)

Many factors can affect sustainability, such as financial and political climates, organizational characteristics, and elements of evaluation and communication. The Program Sustainability Assessment Tool allows stakeholders to rate their programs on the extent to which they have processes and structures in place that will increase the likelihood of sustainability. Assessment results can then be used to identify next steps in building program capacity for sustainability in order to position efforts for long term success.

Interpreting the Results:

The table presents the average rating for each sustainability domain based on the responses that you provided. The remainder of the document presents the ratings for indicators within each domain. There is no minimum rating that guarantees the sustainability of your program. However, lower ratings do indicate opportunities for improvement that you may want to focus on when developing a plan for sustainability.

Overall Capacity for Sustainability	4.0
Environmental Support	5.5
Funding Stability	3.0
Partnerships	4.6
Organizational Capacity	3.5
Program Evaluation	2.7
Program Adaptation	4.8
Communications	3.4
Strategic Planning	4.6

1 = to little or no extent / 7 = to a great extent

Next Steps:

- These results can be used to guide sustainability planning for your efforts.
- Areas with lower ratings indicate that there is room for improvement.
- Address domains that are most modifiable, quicker to change, and have data available to support the needed changes.
- Develop strategies to tackle the domains that may be more difficult to modify.
- Make plans to assess the sustainability of your efforts on an ongoing basis to monitor changes as you strive for an ongoing impact.



<https://sustaintool.org/>

Building an evidence-based health department

4. Peer networking involves bringing practitioners together to learn from each other via in-person or distance methods

ORIGINAL RESEARCH

Institution-to-Institution Mentoring to Build Capacity in 24 Local US Health Departments: Best Practices and Lessons Learned

Maggie Veatch, MPH; Gail P. Goldstein, MPH; Rachel Sacks, MPH; Megan Lent, MPH; Gretchen Van Wye, PhD, MA

Getting to Uptake: Do Communities of Practice Support the Implementation of Evidence-Based Practice?

Melanie A. Barwick PhD, CPsych^{1,2}; Julia Peters MA¹; Katherine Boydell PhD^{1,2}



“Getting a new idea adopted, even when it has obvious advantages, is often very difficult.”

-- Everett Rogers, *Diffusion of Innovations*

Core Issues

- Scale-up of evidence-based practices
 - Increasing reach
 - Enhancing local relevance
 - Identifying and engaging key partners
- Sustainment
 - Achieving a “critical mass” of trained practitioners in each health department
- Remember sound public health practice is a blend of art *and* science
 - Commitment to make a difference in light of imperfect evidence

Relevant Literature

- Barwick MA, Peters J, Boydell K. Getting to uptake: do communities of practice support the implementation of evidence-based practice? *J Can Acad Child Adolesc Psychiatry*. Feb 2009;18(1):16-29.
- Brownson CA, Allen P, Yang SC, Bass K, Brownson RC. Scaling Up Evidence-Based Public Health Training. *Prev Chronic Dis*. 2018;15:E145.
- Brownson RC, Allen P, Jacob RR, et al. Controlling Chronic Diseases Through Evidence-Based Decision Making: A Group-Randomized Trial. *Prev Chronic Dis*. 2017;14:E121.
- Brownson RC, Baker EA, Deshpande AD, Gillespie KN. *Evidence-Based Public Health*. 3rd ed. New York: Oxford University Press; 2018.
- Brownson RC, Fielding JE, Green LW. Building Capacity for Evidence-Based Public Health: Reconciling the Pulls of Practice and the Push of Research. *Annu Rev Public Health*. 2018;39:27-53.
- Brownson RC, Fielding JE, Maylahn CM. Evidence-based public health: A fundamental concept for public health practice. *Annu Rev Public Health*. 2009;30:175-201.
- Brownson RC, Allen P, Duggan K, Stamatakis KA, Erwin PC. Fostering more-effective public health by identifying administrative evidence-based practices: a review of the literature. *Am J Prev Med* 2012;43(3):309-19.
- Brownson RC, Reis RS, Allen P, Duggan K, Fields R, Stamatakis KA, et al. Understanding administrative evidence-based practices: findings from a survey of local health department leaders. *Am J Prev Med* 2013;46(1):49-57.
- Duggan K, Aisaka K, Tabak RG, Smith C, Erwin P, Brownson RC. Implementing administrative evidence based practices: lessons from the field in six local health departments across the United States. *BMC Health Serv Res* 2015;15:221.
- Erwin PC, Harris JK, Smith C, Leep CJ, Duggan K, Brownson RC. Evidence-Based Public Health Practice Among Program Managers in Local Public Health Departments. *J Public Health Manag Pract* 2013.

Relevant Literature

- Eyler AA, Valko C, Ramadas R, Macchi M, Fershteyn Z, Brownson RC. Administrative Evidence-based Practices in State Chronic Disease Practitioners. *Am J Prev Med.* Feb 2017;54(2):275-283
- Graham JR, Mackie C. Criteria-Based Resource Allocation: A Tool to Improve Public Health Impact. *J Public Health Manag Pract.* Jul-Aug 2016;22(4):E14-20.
- Jacob RR, Brownson CA, Deshpande AD, et al. Long-Term Evaluation of a Course on Evidence-Based Public Health in the U.S. and Europe. *Am J Prev Med.* 2021;61(2):299-307.
- Jacobs JA, Duggan K, Erwin P, et al. Capacity building for evidence-based decision making in local health departments: scaling up an effective training approach. *Implement Sci.* 2014;9(1):124.
- Kaplan GE, Juhl AL, Gujral IB, Hoaglin-Wagner AL, Gabella BA, McDermott KM. Tools for identifying and prioritizing evidence-based obesity prevention strategies, Colorado. *Prev Chronic Dis.* 2013;10:E106.
- Mazzucca S, Valko CA, Eyler AA, et al. Practitioner perspectives on building capacity for evidence-based public health in state health departments in the United States: a qualitative case study. *Implement Sci Commun.* 2020;1.
- Schell SF, Luke DA, Schooley MW, et al. Public health program capacity for sustainability: a new framework. *Implement Sci.* 2013;8:15.
- Tabak RG, Duggan K, Smith C, Aisaka K, Moreland-Russell S, Brownson RC. Assessing Capacity for Sustainability of Effective Programs and Policies in Local Health Departments. *J Public Health Manag Pract* 2015.
- Yarber L, Brownson CA, Jacob RR, et al. Evaluating a train-the-trainer approach for improving capacity for evidence-based decision making in public health. *BMC Health Serv Res.* 2015;15(1):547.

Questions/Discussion



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Announcements



Announcements & Updates

- Please complete the Educational Series Evaluation Survey which will be sent via email following this meeting.
- If you want to continue the conversation, join the NYSPHC Fellowship Program LinkedIn Group to continue networking and professional development:
<https://www.linkedin.com/groups/14059709>



NYSPHC Training and Resources Website

<https://nysphcresources.health.ny.gov/training-resource-center>

New York State Public Health Corps Fellowship Program



Training Resource Center Home



About the
NYSPHC



Fellow Training
Resources



Mentor Training
Resources



Resources by
Region



Workgroup
Resources



NYSPHC Events
Calendar

NYSPHC Educational Series



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Save the Date

Justice, Equity, Diversity, Inclusion (JEDI)

- April 12, 2023
- 12 pm – 1 pm