Tips and Tricks to Practicing Data-Driven Decision Making

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2019 Minority Health Conference

York, NE

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Overarching Goal: Improve health

What to do?

How to do this?

What is the role of data?

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Objectives

Describe the evidence-based public health framework

Describe different sources of data to use when making decisions

Practice thinking about how different data sources will impact what decision is made

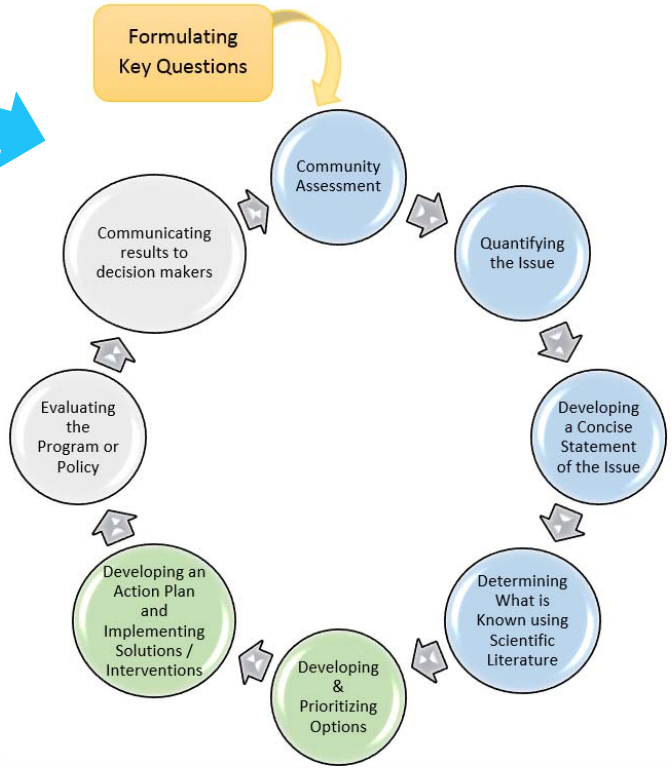

Image source: Adapted from Framework for Evidence-based Public Health. Ross Brownson et al. (2009)

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Decision Making

Consider how we make decisions

Consider who gets to be involved in this process

This is a flyover view of decision-making.

These are components of the process, but aren't shown in chronological order

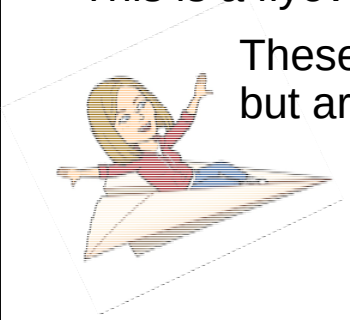

Figure: Domains that influence evidence-based decision making

Source for Graphic: Jacobs JA, Jones E, Gabella BA, Spring B, Brownson RC. Tools for Implementing an Evidence-Based Approach in Public Health Practice. Prev Chronic Dis 2012;9:110324.

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Getting Started

Tip: Spend time making sure you're asking the right questions when a project is getting started.

Where or why did your project start?

- Funding requirement
- Funding opportunity
- Data identified need
- A crisis
- Surplus of _x_
- Boss's request
- Community call to action

What role did data have in the project development?

How is data currently being used?

What data should be used? Could be used?

Who decides what data is relevant? What data matters?

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Getting Started

Where or why did your project start?

What role did data have in the project development?

How is data currently being used?

What data should be used? Could be used?

Who decides what data is relevant? What data matters?

Are the answers to these questions different if the focus is on health equity?

Tip: Always consider health equity

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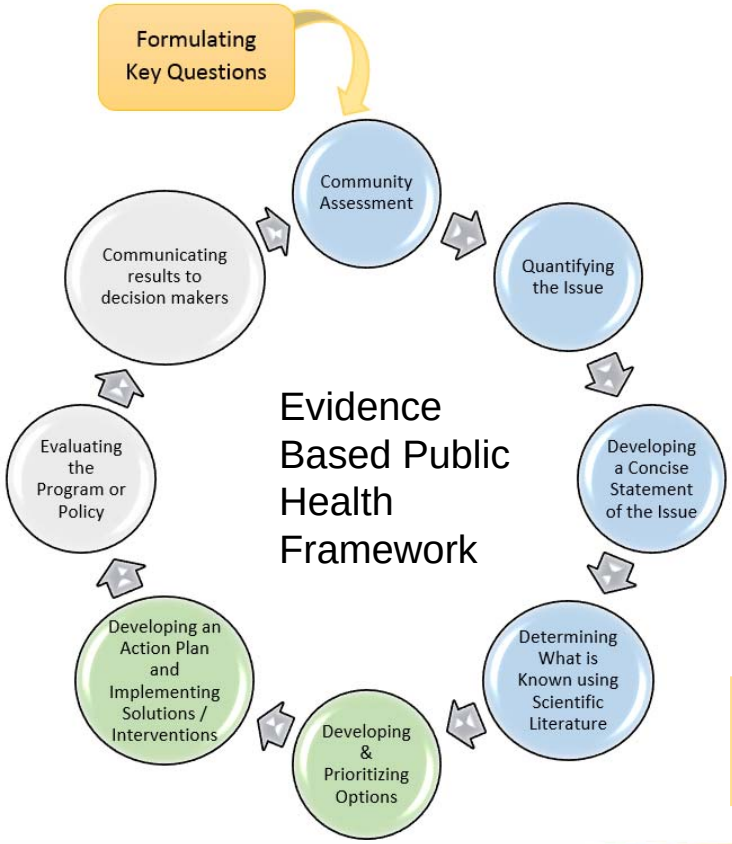
Decision Making as a Process



Step of the Process	Quick Description of Process
Formulating Key Questions	Identify the problem, issue, or policy driving the program/project
Community Assessment	Identify the problem(s) and unmet needs of the selected community
Quantifying the Issue	Use data to help define the issue(s)
Developing a Concise Statement of the Issue	Develop a concise statement about a problem, issue, or policy
Determining What is Known Using Scientific Literature	Use additional information that can support and help define the issue
Developing & Prioritizing Options	Prioritize competing options using selected criteria
Developing an Action Plan and Implementing Solutions / Interventions	Use key planning tools such as strategic planning, logic models, and work plans to define and implement the work
Evaluating the Program or Policy	Measure progress, outcomes, and impact
Communicating Results to Decision Makers	Identify key audiences and communicate results

The Framework is…

- Dynamic
- Based on community needs
- Appropriate from project start to finish

Tip: Use this framework as a guide when developing a project

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Data Matters

The type of data used to quantify the issue will influence how the issue is conceptualized, operationalized, and what can be done about it.

Different types of data can be matched/paired to describe a complex relationship.

Surveillance data
+ Administrative data
+ Qualitative data

How well a program is meeting the needs of a population

Data Types and Characteristics

Data informs decision-making in many ways. This table details different types of data and characteristics of those data that may make it more or less valuable for decision-making.

Types of Data	Who	Data	Time Period	Why
Administrative / Program Data	Controlled by program	Data generated in program's day-to-day operation	Ongoing	To document the completion of work
Performance Data	Controlled by program	Data collected to monitor progress in achieving specific goals	Ongoing	To document progress, inform management, and use for performance improvement
Evaluation	Controlled by stakeholders and program	Combination of data generated by programs and data collected at a point-in-time	Over a defined period of time	To show how a program is working (either process or outcome)
Quality Improvement	Controlled by stakeholders and program	Data related to a specific defined process; day-to-day operations	Ongoing; Cyclical	To determine if and what improvements are made in a specific process
Research	Controlled by investigators	Data collected varies by research topic	Specific timeframe	To further knowledge, generate evidence-based practices or programs
Health Surveillance	Controlled by program, state, or national standards	Health outcome, demographic, often defined by state and national standards	Ongoing; Specific timeframe	To monitor and inform public health efforts to reduce morbidity and mortality
Community Health Assessment	Controlled by stakeholders	Combination of program data, data collected on a one-time basis (e.g., survey or focus group).	Specific timeframe	To determine health needs of a population to inform health improvement planning
Qualitative (e.g., key Informant or focus group)	Controlled by data collectors	Descriptive information about characteristics that are difficult to define or measure or cannot be expressed numerically	Specific timeframe	To explore, explain, and understand phenomena and process (What? Why? How?)

Tip: Consider the impact of the type of data being used to quantify the issue.

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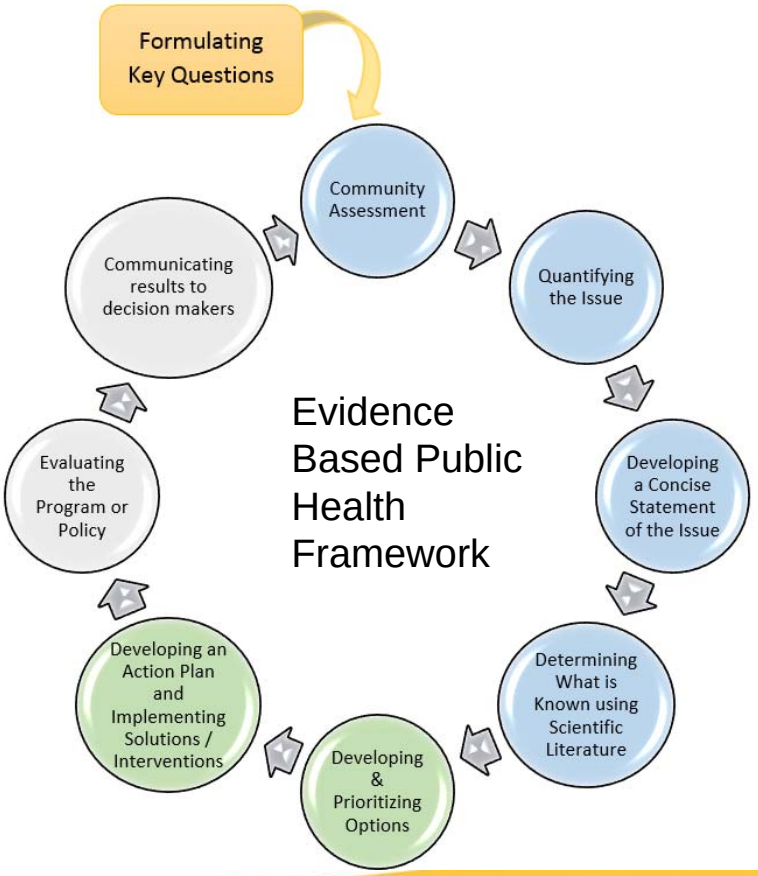
Using the Framework / Data Driven Decision Making



Trick: Turn the framework into a series of questions to answer. What question is asked really really matters.

What is *really* the issue?

What is the need of the community?

Does data support this need?

What else is known about this issue/need?... Nationally, with subpopulations, empirically or theoretically

What do we want to change?

How do we want to change that?

How did we do?
Was this the right strategy?

Who should we tell? What difference did this make, who needs to know about it?

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Examples of Data-Driven Projects

2015 Title V Maternal & Child Health Needs Assessment

Annual sampling frame for PRAMS (Pregnancy Risk Assessment Monitoring System)

DHHS Demographics Data Recommendations Report

Nebraska SHIP Health Equity

Recommendations for local health departments when considering capacity and use of data to improve health equity

MCH Data Summits (host in July and November 2019) //
MCH Community of Practice (beginning in May 2019)

Place Matters in Public Health Toolkit

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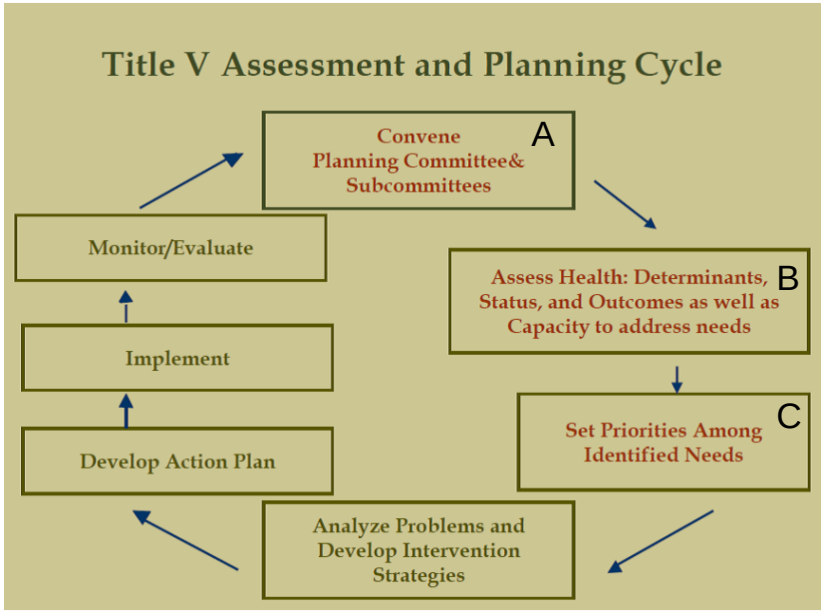
2015 Title V MCH Needs Assessment



	Steps in Needs Assessment Process	
1	Data Collection and Analysis	B
2	Stakeholder Process Kick-Off	A
3	Stakeholders Develop Criteria	B
4	Stakeholders Determine Weights for each Criterion	
5	Staff Finalized Definitions and Develop Rating Scales for Criteria	B
6	Subcommittee Meeing 1: Provide Orientation and Present Data	B
7	Subcommittee Meeting 2: Review Data, Identify List of Needs, Determine Top 3-5 Needs per Population Group	B
8	Subcommittee Meeting 3: Write Problem Statements, Draft Issue Briefs, and Determine Presenters	B
9	Presentation of Identified Problems by Subcommittees to the Entire Stakeholder Group	C
10	Use Weighted Criteria to Score Problems	C
11	Sum Participant's Scores/Rank Problems	C
12	Discuss and Confirm Results	C
13	**Finalize List of 10 Priorities**	C

http://dhhs.ne.gov/publichealth/MCHBlockGrant/Pages/NAMethodology.aspx

Tip: Take your time. The Title V process takes 5 years.

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Pregnancy Risk Assessment Monitoring System (PRAMS)

Recent Response Rates by Race/Ethnicity

Nebraska's Response Rate						
	2012	2013	2014	2015	2016	2017
White	72%	69%	63%	68%	66%	59%
African American	51%	45%	40%	42%	37%	29%
Native American	51%	42%	40%	35%	36%	32%
Asian/Pacific Islander	63%	55%	57%	50%	51%	47%
Hispanic	66%	62%	63%	56%	49%	51%
Overall Unweighted	63%	58%	54%	54%	51%	45%
Overall Weighted*	69%	66%	60%	63%	60%	54%

*Response rates weighted for generalizing results to the state's entire population of births.

Tip: Involve stakeholders in the decision making process. Especially if you need their partnership. Especially when interpreting data.

Involve stakeholders at the beginning of your project.

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Nebraska SHIP

SHIP Priority Areas & Objectives

- Integrated health system
- Depression and Suicide
- Obesity
- Utilization and Access
- Health Equity

Health Equity - Support organizational capacity to address equity through systems, policy, and program efforts.

Co-Launch Partners

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NALHD Nebraska Association Local Health Directors

NHA Nebraska Hospital Association — The influential voice of Nebraska's hospitals

PHAN Public Health Association of Nebraska

University of Nebraska Medical Center College of Public Health

www.dhhs.ne.gov/SHIP

nebraska SHiP

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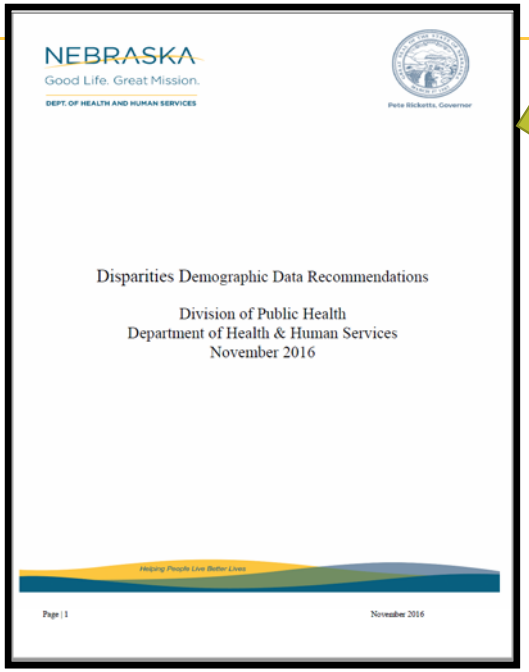
SHIP Health Equity Priority

Vision: Nebraskans will experience health equity and decreased health disparities

Goals:

- Enhance the collection, analysis, and use of demographic **data**
- Improve **organizational capacity** among stakeholders



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Pete Ricketts, Governor

Disparities Demographic Data Recommendations

Division of Public Health
Department of Health & Human Services
November 2016

Helping People Live Better Lives

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November 2016

Some SHIP work builds on this internal DHHS report from 11/2016.

Tip: Build on prior work and find collaborative ventures to address an identified issue.

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MCH Data Summits (two hosted in 2019)

Hosted about 50 state-level public health data users at two events to discuss data use, limitations, on-going projects, and future needs

Coming soon:

Data Utilization Community of Practice

Evidence-Based Decision Making

This Venn diagram shows the relationships among 5 concepts. Three circles in the middle of the graphic overlap with each other: 1) "Best available research evidence," 2) "Resources, including practitioner expertise," and 3) "Populations characteristics, needs, values, and preferences." Overlapping these 3 circles and in the center is the circle "Decision-making." This group of 4 circles is surrounded by "Environment and organizational context."[1]

Figure: Domains that influence evidence-based decision making

Tip/Trick: You can do better work with partners.

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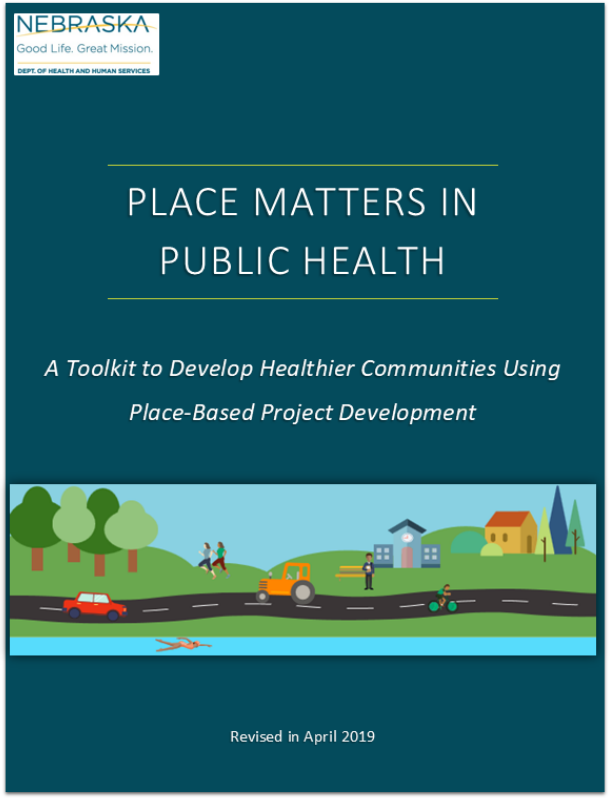
Place Matters in Public Health Toolkit



This provides the “how to” to community level work using Technology of Participation activities

Incorporates

- 4 environments of place
- Social determinants of health
- Health equity
- Evidence-based public health framework

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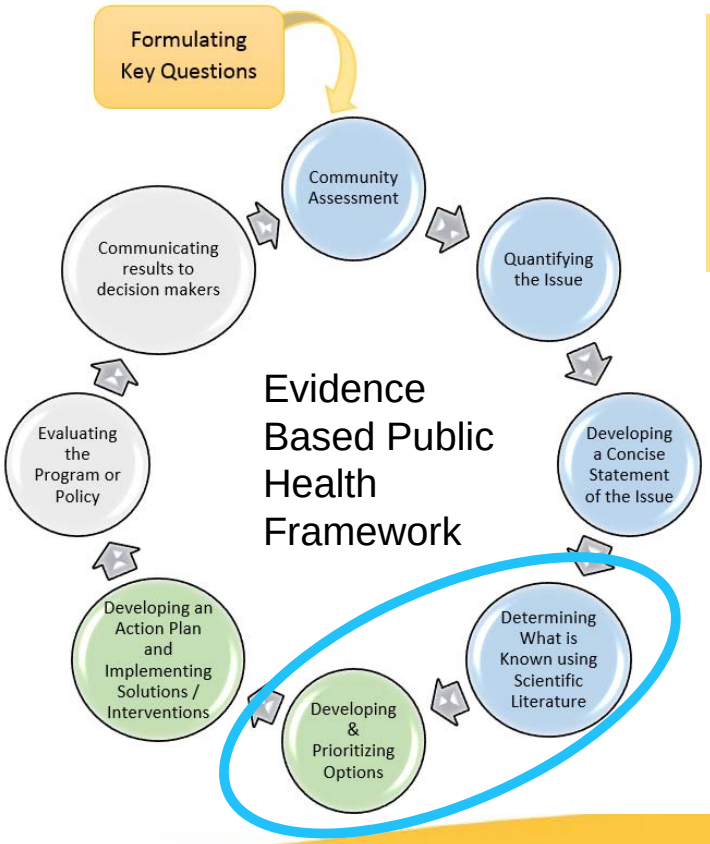
Switching Gears



Trick: Look for new strategies by checking out the resources your successful peers are using.

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Ending Health Disparities

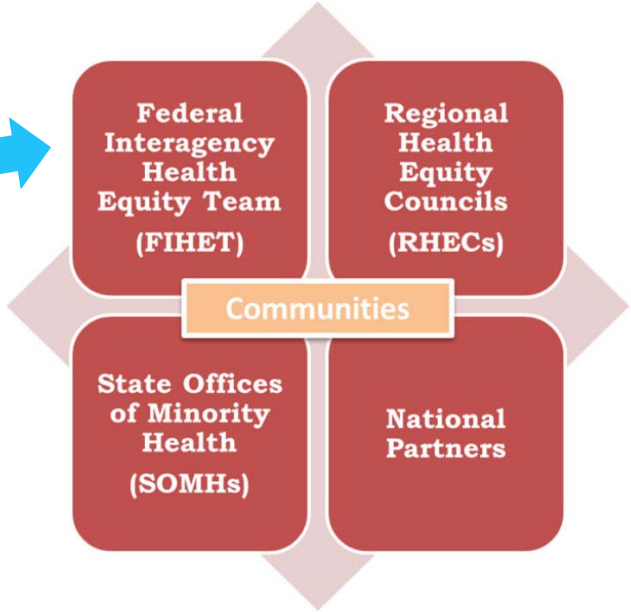
Federal Level

National Partnership for Action to End Health Disparities

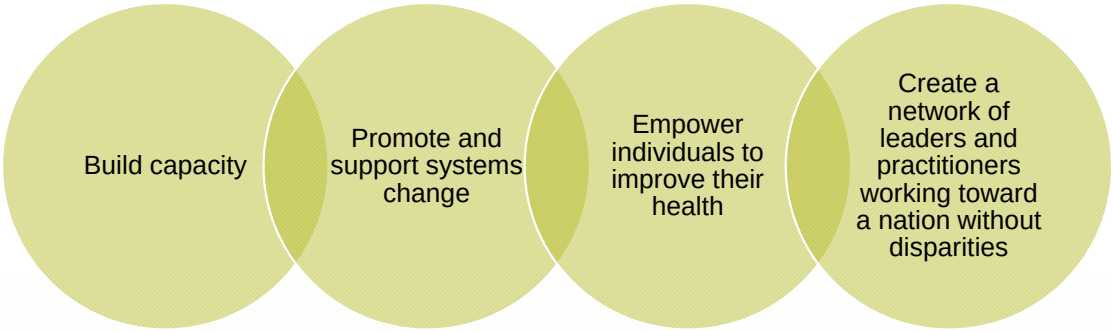
Launched National Stakeholder Strategy in 2011

https://minorityhealth.hhs.gov/npa/templates/content.aspx?lvl=1&lvlid=39&ID=348

Addressing the social determinants of health as the root causes of health disparities



Their broad goals:



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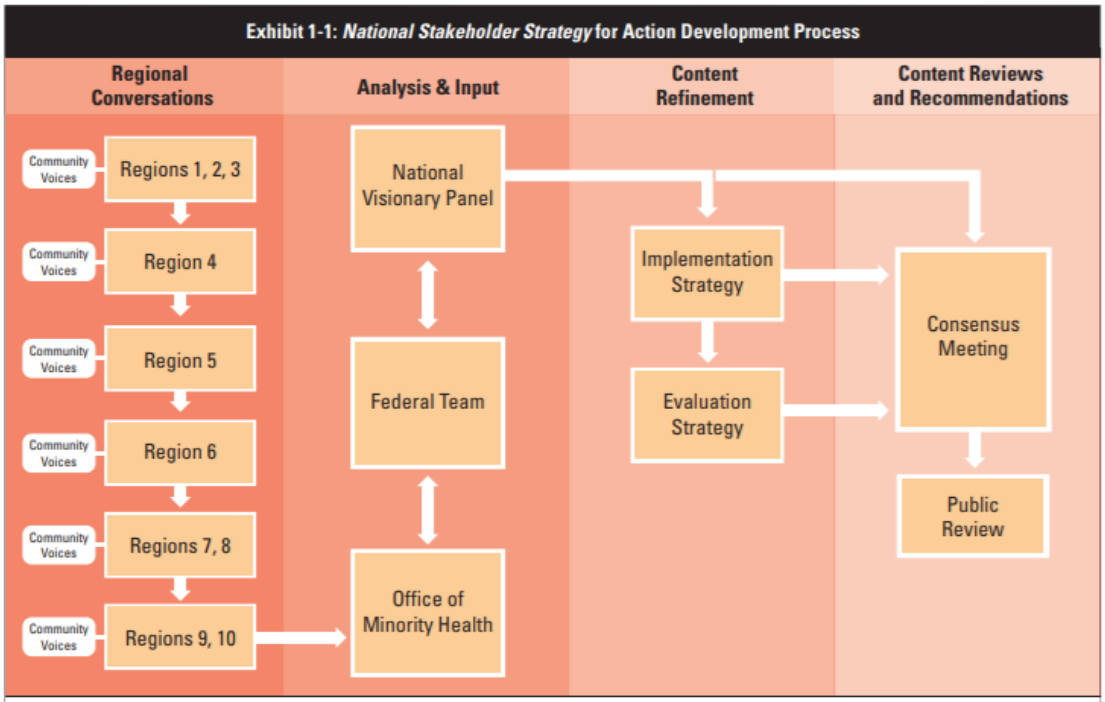
Ending Health Disparities



*Regional Conversations included community-based representatives of African-American, Hispanic, Native American and Alaskan Native, Native Hawaiian and Pacific Islander, and Asian-American attendees at the Regional Conversations. In specific Regional Conversations, representatives from tribal, Caribbean, Pacific Islands, and academia also held meetings and/or provided input to the Regional Conversation outcomes. The Federal Team refers to the FIHET(Federal Interagency Health Equity Team).

Developed based on input from thousands of leaders from community, state, tribal, business, national, and federal sectors.

Tip: Don't reinvent the wheel, if you can help it.

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Ending Health Disparities: The Product

National Partnership for Action to End Health Disparities

Five Goals

1. Increase awareness of the significance of health disparities, their impact on the nation, and the actions necessary to improve health outcomes for racial and ethnic minorities and other underserved populations
2. Strengthen and broaden leadership for addressing health disparities at all levels
3. Improve health and healthcare outcomes for racial and ethnic minorities and other underserved populations
4. Improve cultural and linguistic competency and the diversity of the health-related workforce
5. Improve data availability and coordination, utilization, and diffusion of research and evaluation outcomes

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Ending Health Disparities

National Partnership for Action to End Health Disparities

Data, Research, and Evaluation

- Ensure availability of health data
- Invest in community-based participatory research and evaluation of community-originated intervention strategies to build local capacity to end disparities
- Support and improve coordination of research that enhances understanding about, and proposes methodology for, ending disparities
- Expand and enhance transfer of knowledge generated by research and evaluation for decision making about policies, programs, and grant making related to disparities and equity

Tip: Align your work with national best practices

Summary of NPA Goals and Strategies on last page at https://minorityhealth.hhs.gov/npa/files/Plans/NSS/CompleteNSS.pdf

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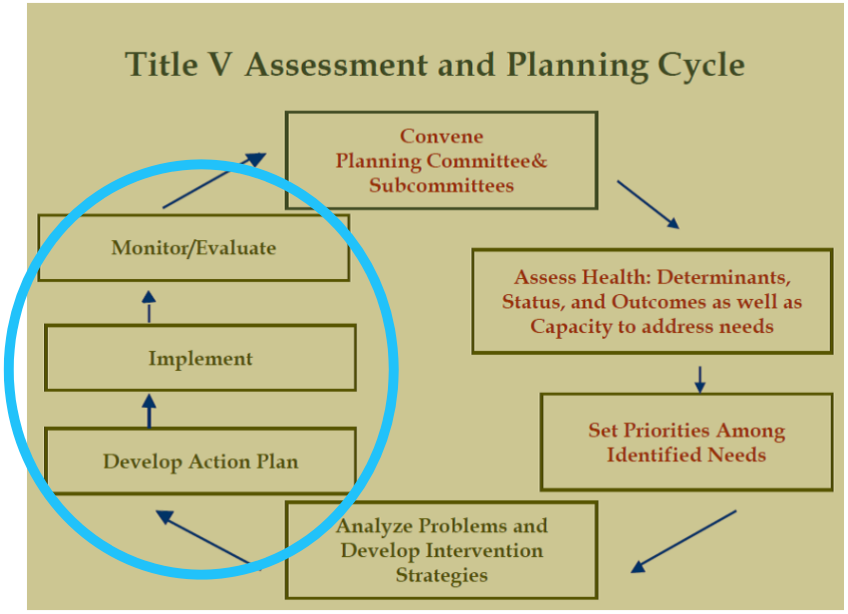
Doing the Work / Sharing Results



http://dhhs.ne.gov/publichealth/MCHBlockGrant/Pages/NAMethodology.aspx

Tip: Plan to make adjustments as you go. Take notes when you do.

Tip: When you're developing and prioritizing options, plan for evaluation. Don't wait until the end to evaluate your work.

Tip: Be strategic with your communication to decision makers. What action will your report encourage? What do you want them to do with/about it?

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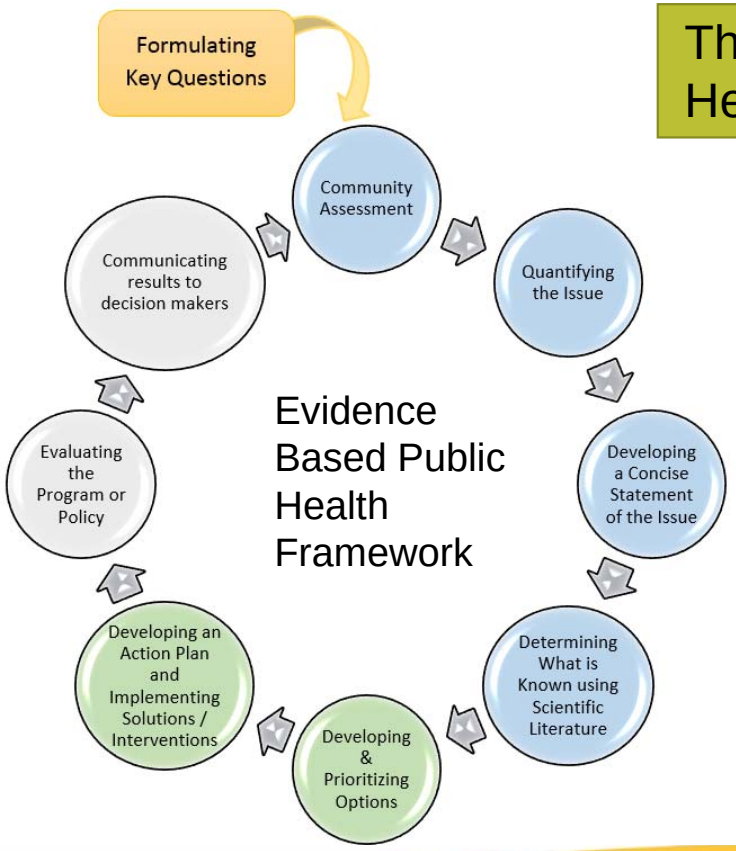
Conclusions



This framework can support data use in decision making. Health equity can be embedded in each step of the process.

Step of the Process	Quick Description of Process
Formulating Key Questions	Identify the problem, issue, or policy driving the program/project
Community Assessment	Identify the problem(s) and unmet needs of the selected community
Quantifying the Issue	Use data to help define the issue(s)
Developing a Concise Statement of the Issue	Develop a concise statement about a problem, issue, or policy
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Evaluating the Program or Policy	Measure progress, outcomes, and impact
Communicating Results to Decision Makers	Identify key audiences and communicate results

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Tips and Tricks *– All on One Slide*

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Always consider health equity

Use the evidence based public health framework as a guide when developing a project

Consider the impact of the type of data being used to quantify the issue.

Turn the framework into a series of questions to answer. What question is asked really really matters.

Take your time.

Involve stakeholders in the decision making process. Especially if you need their partnership. Especially when interpreting data. Involve stakeholders at the beginning of your project.

Build on prior work and find collaborative ventures to address an identified issue.

Look for new strategies by checking out resources your successful peers are using.

Don't reinvent the wheel, if you can help it.

Align your work with national best practices.

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Be strategic with your communication to decision makers. What action will your report encourage? What do you want them to do with/about it?

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Today I…

Described the evidence-based public health framework

Described different sources of data to use when making decisions

Encouraged thinking about how different data sources will impact decision making

different questions

different stakeholders

a focus on health equity

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