Standardizing Public Health Services Data for Decision-Making & Generating Evidence: Development & Application of the PHAST Model

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APHA 2016 Annual Meeting
Tuesday, November 1, 2016

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SCHOOL OF NURSING
UNIVERSITY *of* WASHINGTON

PHAST
Public Health Activities & Services Tracking

Presenter Disclosures

I have NO personal financial relationships with commercial interests relevant to this presentation

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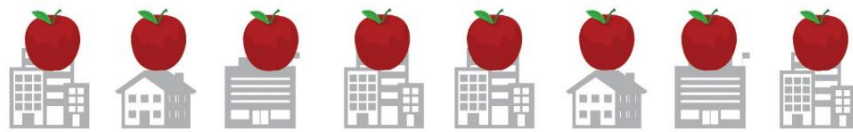Public Health Activities & Services Tracking

Problem:

2800 local health departments in all 50 states

measure their activities & services differently

but need standardized, comparable data for

DECISIONS

RESEARCH
GAPS
QUALITY IMPROVEMENT
ACCREDITATION
FUNDING
PREPAREDNESS
EVALUATION
PLANNING
FOUNDATIONAL SERVICES

PHAST
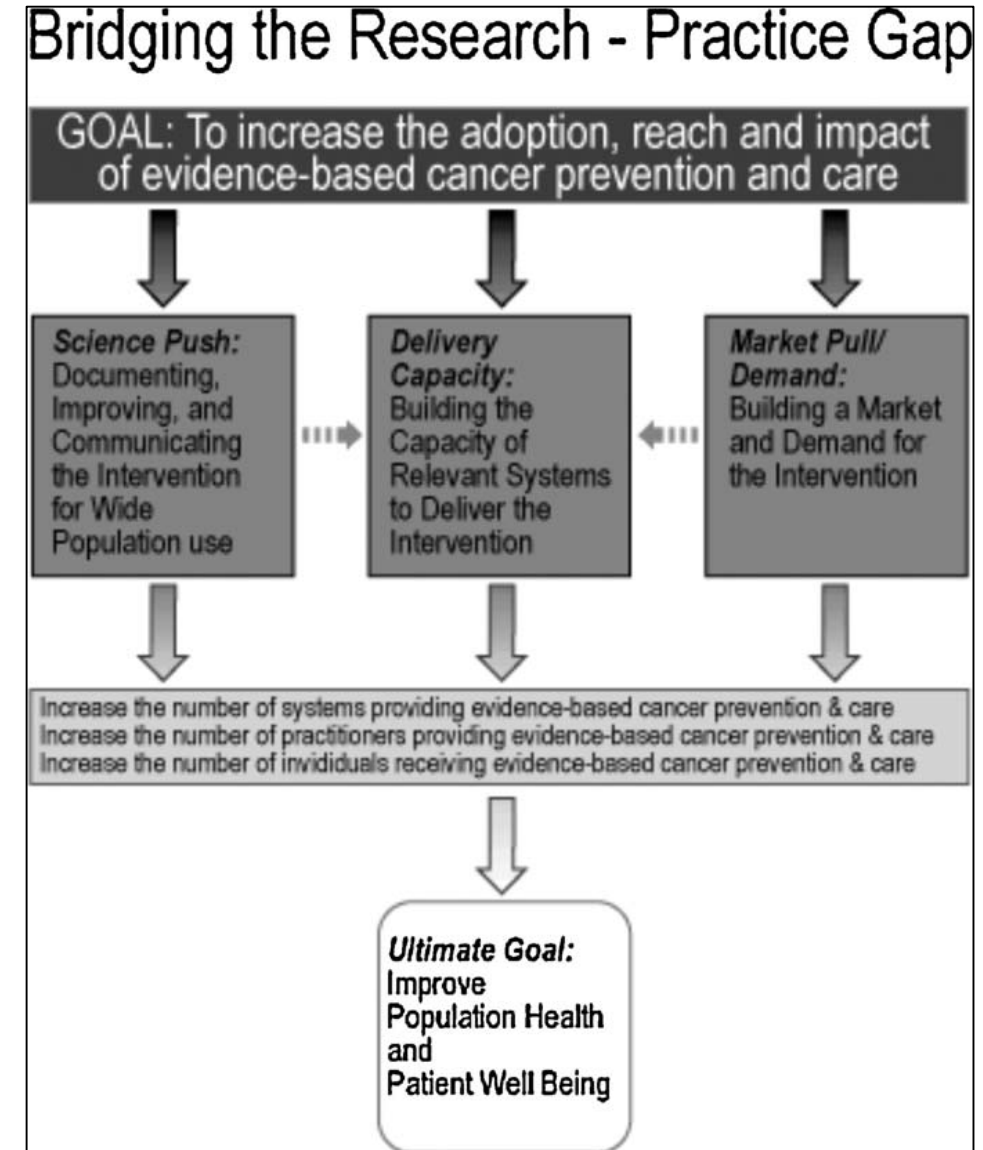Public Health Activities & Services Tracking

Methods

- Extensive literature review
  - dissemination & implementation science
- Semi-structured interviews with public health leaders
  - 6 PH Practice-Based Research Networks (PBRNs) to identify factors influencing adoption of standardized measures
  - 14 interviews asking use of & need for data in public health practice in 2016

Our Approach to Model Development

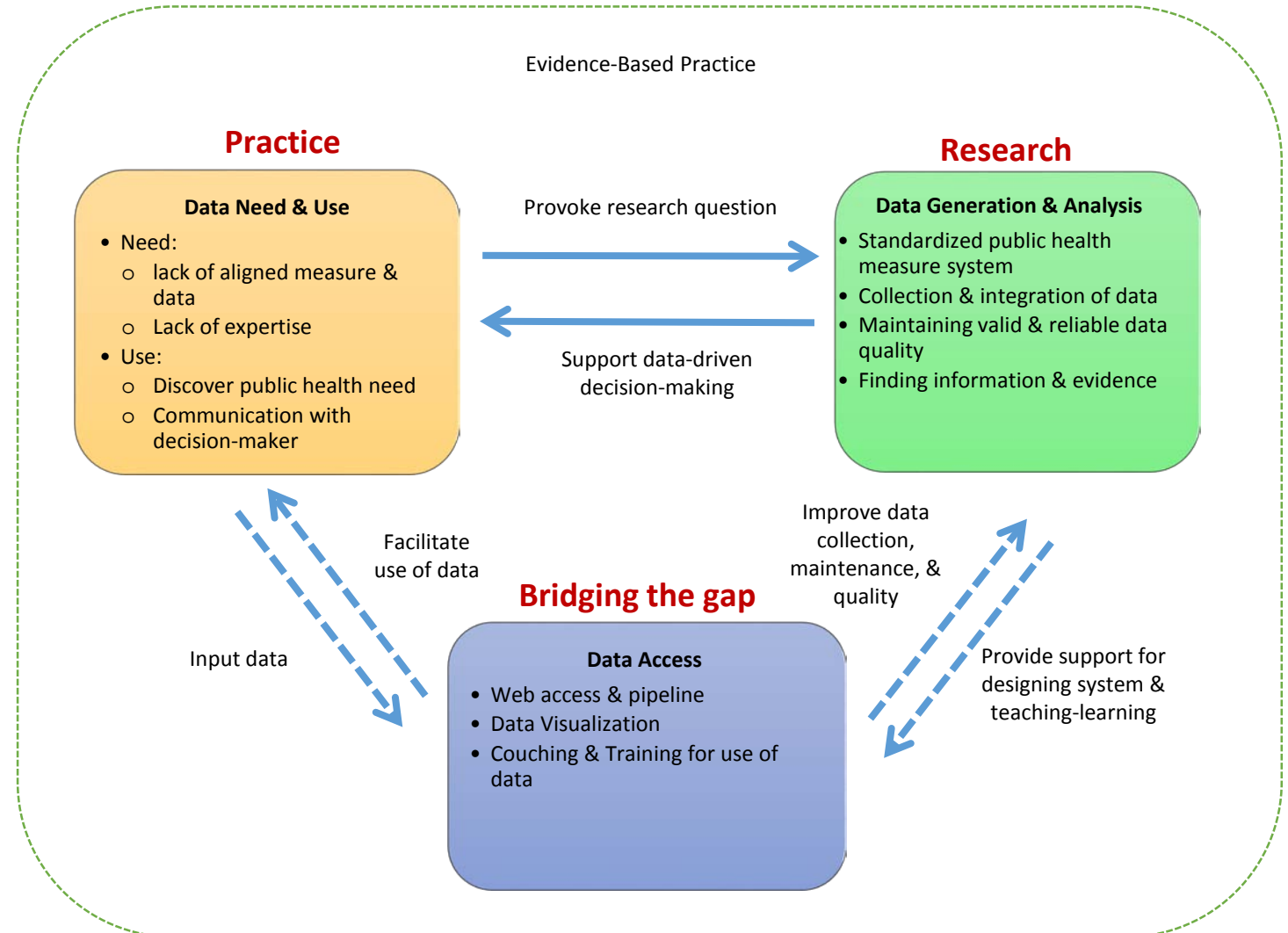- Adapted from models related to the Dissemination & Implementation Science

Bridging the Research - Practice Gap

GOAL: To increase the adoption, reach and impact of evidence-based cancer prevention and care

Science Push: Documenting, Improving, and Communicating the Intervention for Wide Population use

Delivery Capacity: Building the Capacity of Relevant Systems to Deliver the Intervention

Market Pull/ Demand: Building a Market and Demand for the Intervention

Increase the number of systems providing evidence-based cancer prevention & care
Increase the number of practitioners providing evidence-based cancer prevention & care
Increase the number of invididuals receiving evidence-based cancer prevention & care

Ultimate Goal: Improve Population Health and Patient Well Being

Dearing & Kreuter's
Push-Pull-Infrastructure Model (2010)

Overview of The PHAST Model

3 parts:
- Practice
- Research
- Bridging the gap

Evidence-Based Practice

Practice

Data Need & Use
- Need:
  o lack of aligned measure & data
  o Lack of expertise
- Use:
  o Discover public health need
  o Communication with decision-maker

Provoke research question

Support data-driven decision-making

Research

Data Generation & Analysis
- Standardized public health measure system
- Collection & integration of data
- Maintaining valid & reliable data quality
- Finding information & evidence

Facilitate use of data

Input data

Improve data collection, maintenance, & quality

Provide support for designing system & teaching-learning

Bridging the gap

Data Access
- Web access & pipeline
- Data Visualization
- Couching & Training for use of data

Data Need & Use (Practice)

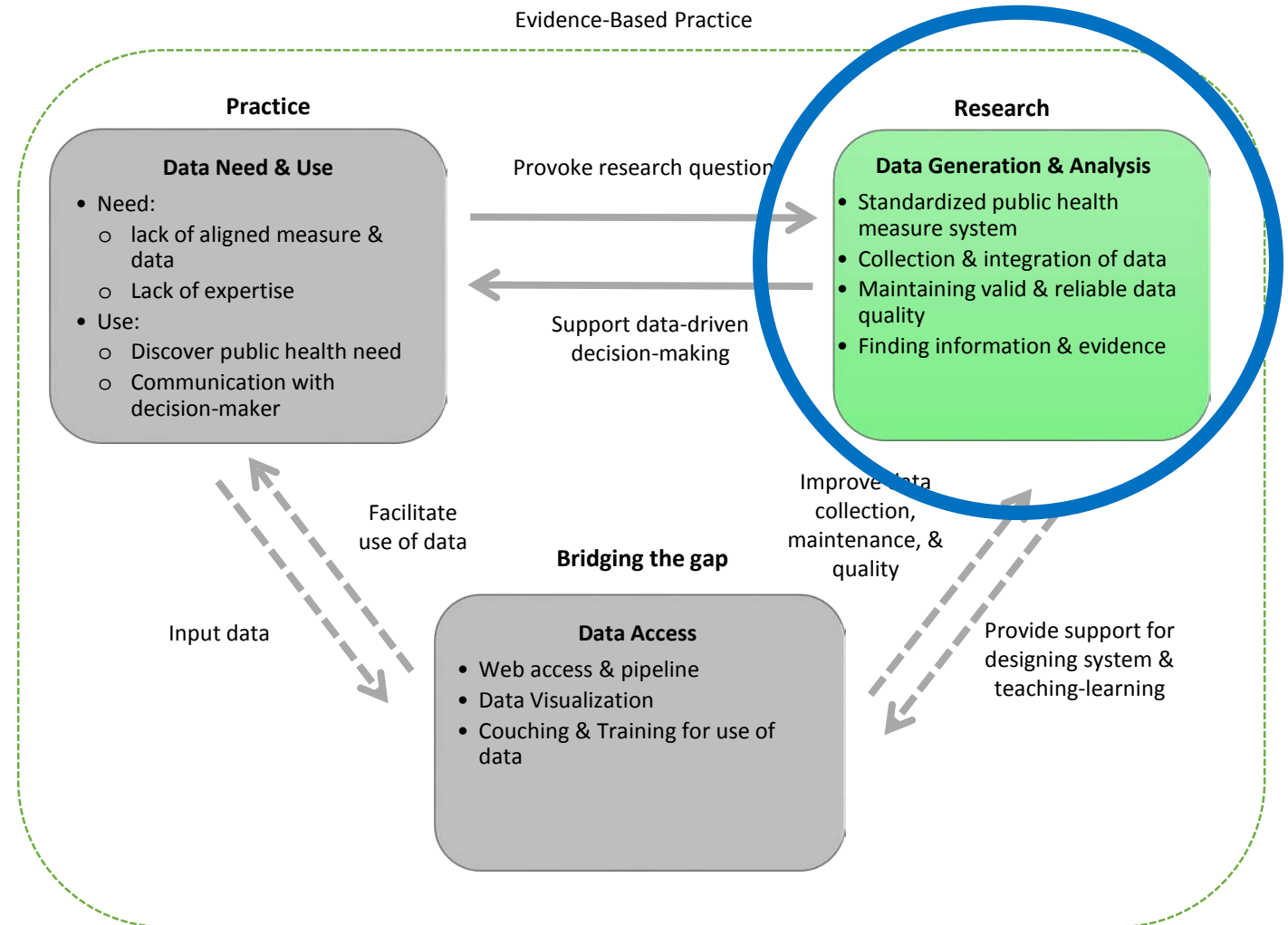- Standardized data needs arise from PH leaders to address PH problems & communicate better with decision makers

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Data Need (Practice)

- Challenges related to data use
  - Old data infrastructure/system
  - No enforcement of data report
  - Lack of data specific to inform their decisions
  - Timeliness of data
  - Lack of IT experts

- Purpose of data use
  - Discover the needs of a population regarding program & services among & setting priorities
  - Communicate better with decision-makers & policy-makers

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Data Generation & Analysis (Research)

Includes:

- Developing standardized PH measures & collecting data using the measures

- Producing information & evidence to support practice

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PHAST/MPROVE Measures

Communicable disease control (14 measures)
- Immunization
- Enteric disease control
- STI control
- Tuberculosis control

Chronic disease prevention (8 measures)
- Tobacco prevention
- Obesity prevention

Environmental health protection (5 measures)
- Lead exposure protection
- Food safety protection

Finding Information & Evidence

Inspections Per Food Service Establishment,
WA Local Health Jurisdictions, 2012
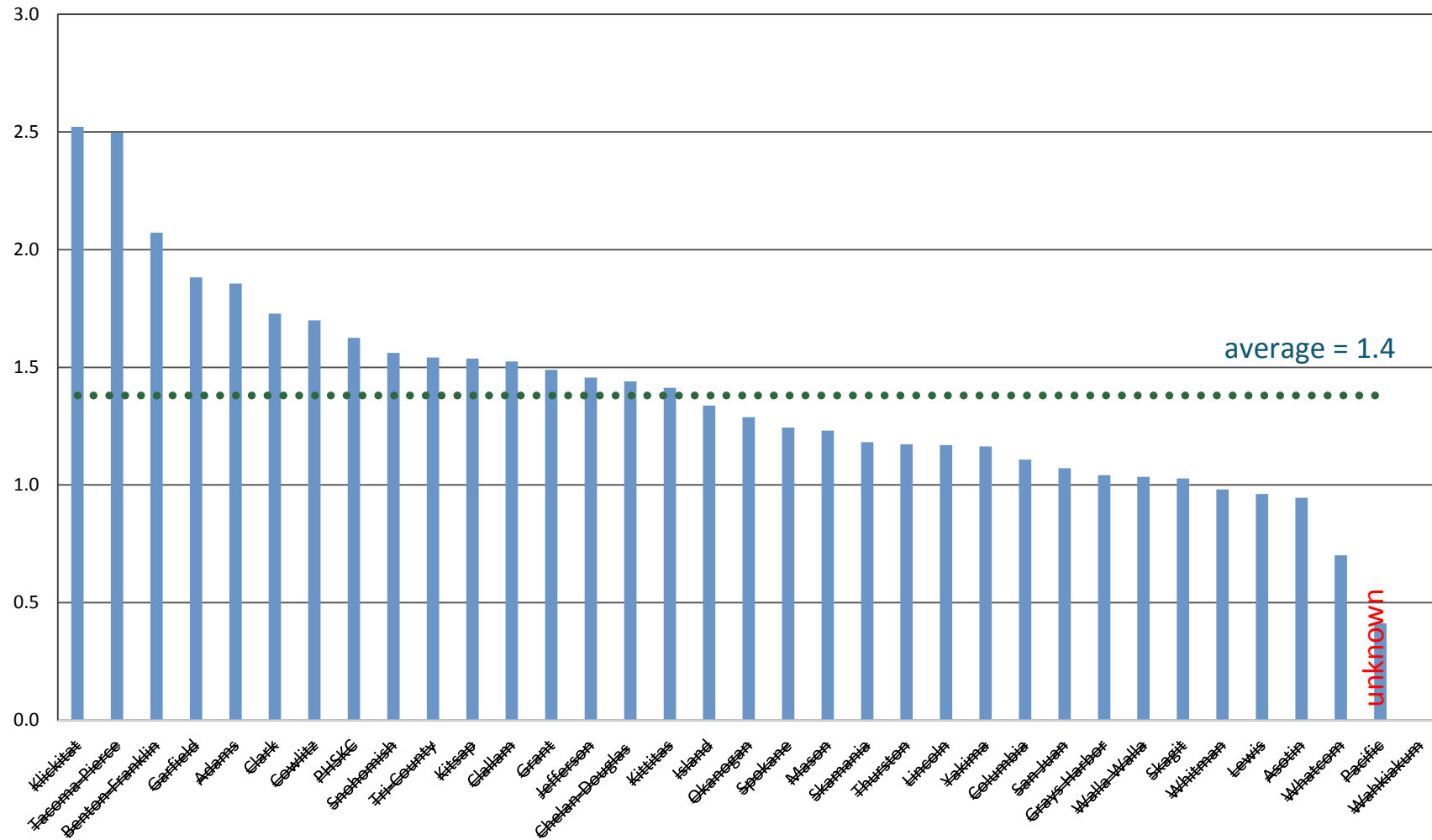
Finding Information & Evidence (cont.)

Research Question for Environmental Health:

Are LHD expenditures on food safety & sanitation impacting enteric disease morbidity?
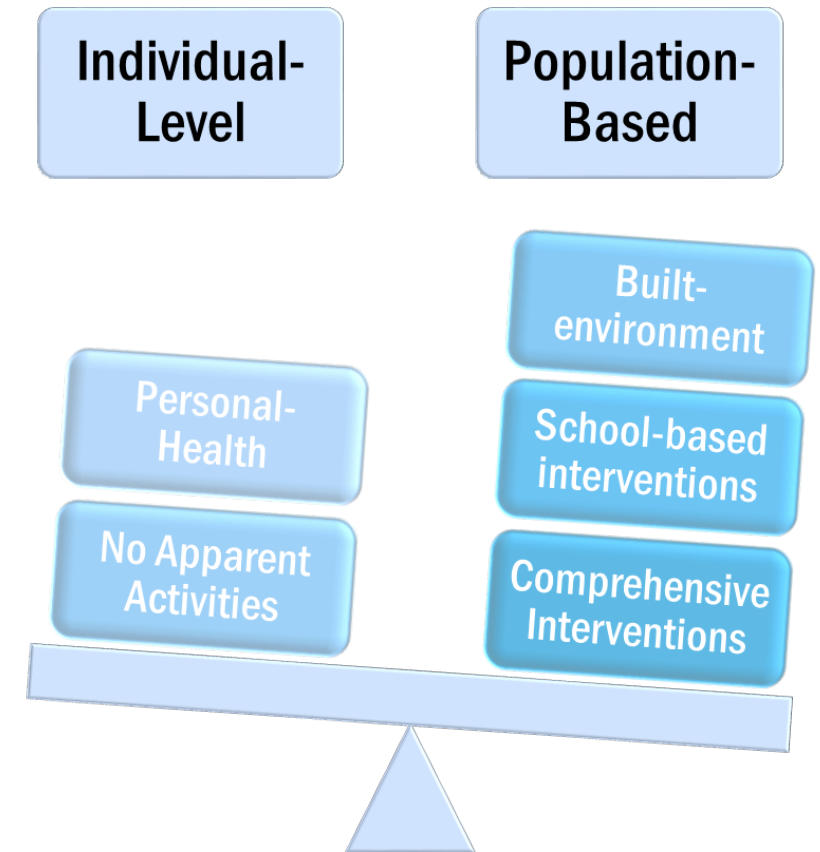
Answer YES!

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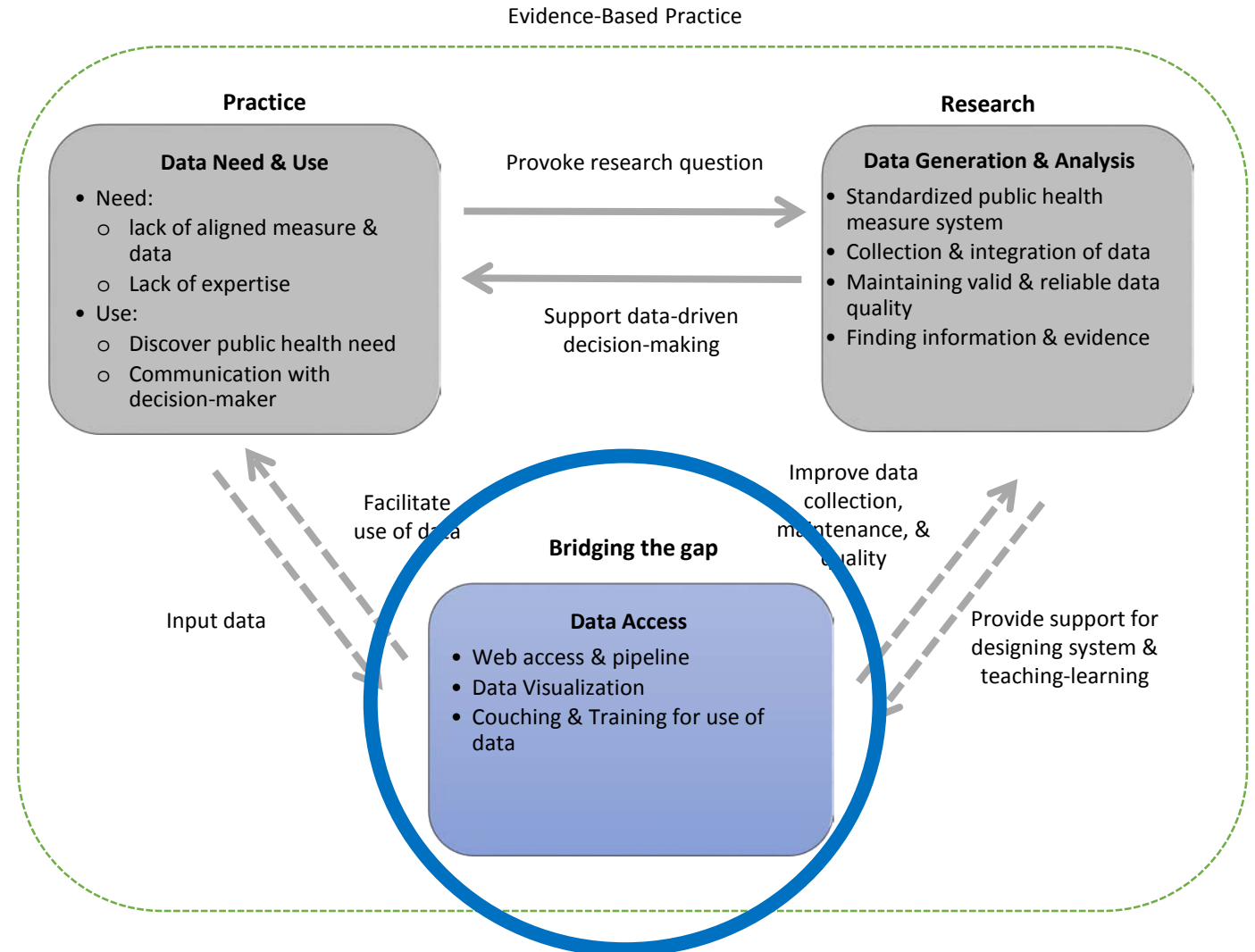
Finding Information & Evidence (cont.)

Obesity Prevention Research

- **Prevalence of obesity is lower & physical activity is higher** in all LHD groups with population-based interventions compared to LHDs with "No Apparent Activities."

- **Population-based interventions are more strongly linked to positive outcomes** when compared to individual-level interventions.

- LHDs with individual-level interventions were not significantly different from those with "No Apparent Activities."

Individual-Level

Population-Based

Built-environment

Personal-Health

School-based interventions

No Apparent Activities

Comprehensive Interventions

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Data Access (Bridging the gap)

- Efforts to reduce the gap between practice & research

- Tools such as online data capture tools, data dashboard, & training to facilitate data use

Evidence-Based Practice

Practice

Research

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Provoke research question →

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← Support data-driven decision-making

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Bridging the gap

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Data Access (Bridging the gap)

Feedback from PH leaders

- Simple, easily understandable
- Comparable
- Reliable data source
- Interactive:
  - o Overview
  - o Zoom & filter
  - o Detail on demand
- Map
- Provide training or tutorial

PUBLIC HEALTH LEADERS
interviewed about data use, needs, and vision

TESTING & INPUT
with local and state health departments
helps refine dashboard usability and design

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INTERACTIVE DASHBOARD
developed using that initial data from a subset
of the PHAST standardized measures

Inter-Relationships of the Three Model Parts
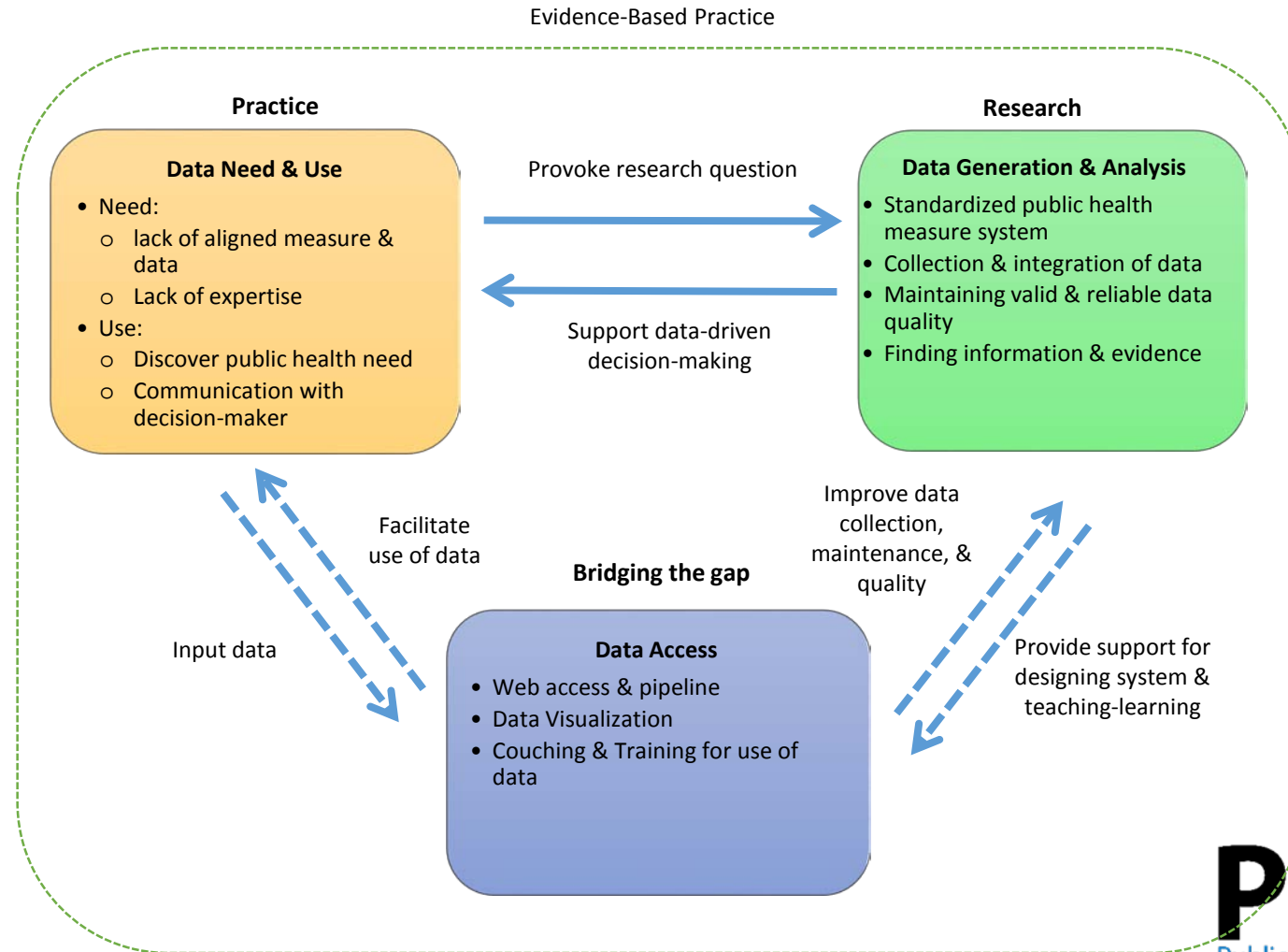
Implications

- Can utilize this model for advancing the integration & uptake of standardized data among public health leaders

- Refinement of this model & explication

- Need more efforts to implement these standardized measures into statewide data systems

- Further examination of impact of standardized measure & efforts to bridge the gap between practice & research

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More Information

- Website: http://phastdata.org

- Email: phast@uw.edu

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