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Learning from Positive Outlier Local Health Departments in Maternal and Child Health

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Presenter Disclosures

Tamar Klaiman

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No relationships to disclose

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Research Objective

To identify and **learn from** LHDs in Washington State

that perform better than expected in MCH outcomes compared to peers

Background – WA State Public Health

- 35 county health departments
- Decentralized System
  - State BoH (10 members) oversees LHDs
  - Local Health Officer is representative to local government agency
  - Funding funneled from

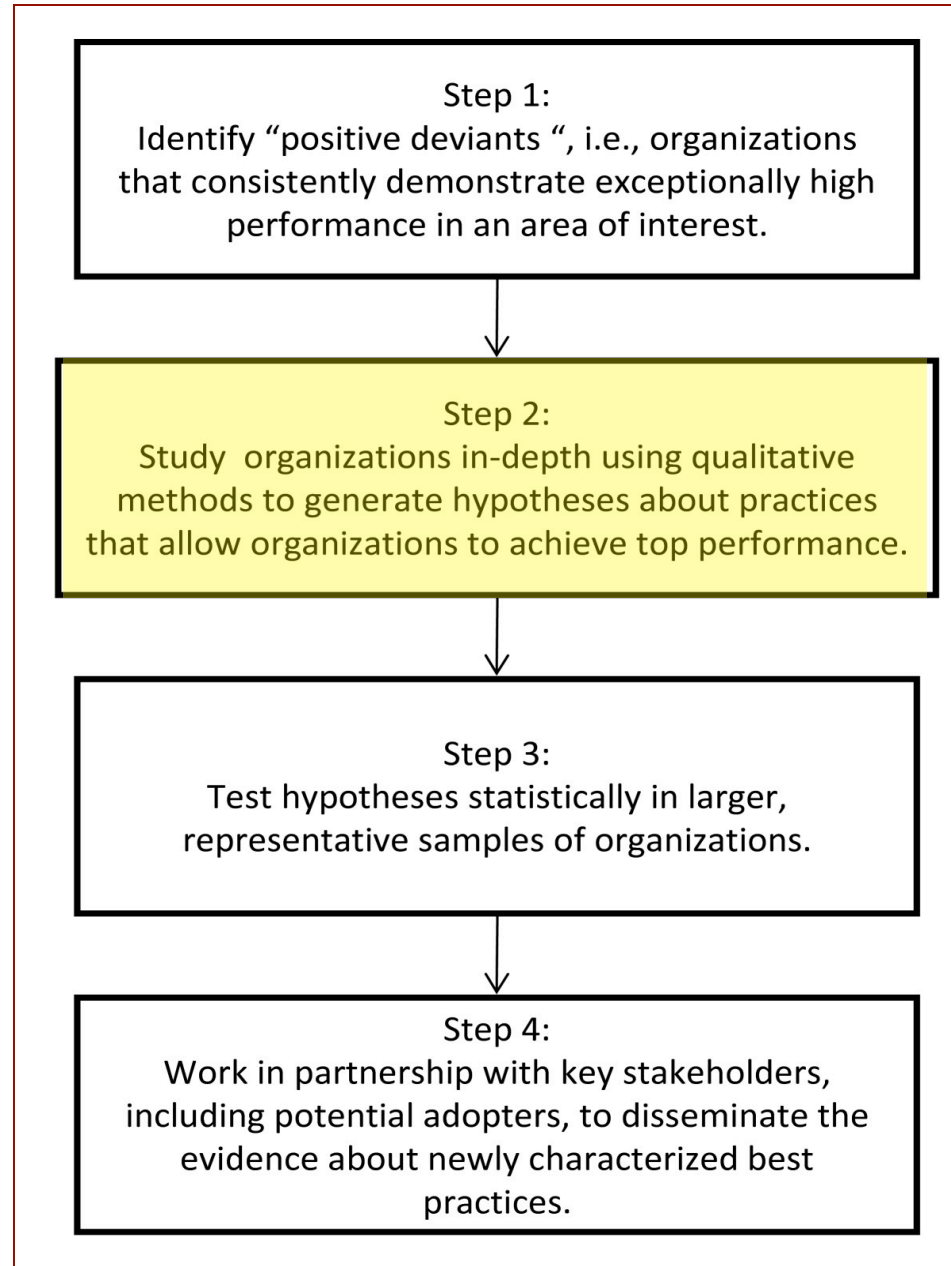 State DoH to LHDs based

  on population
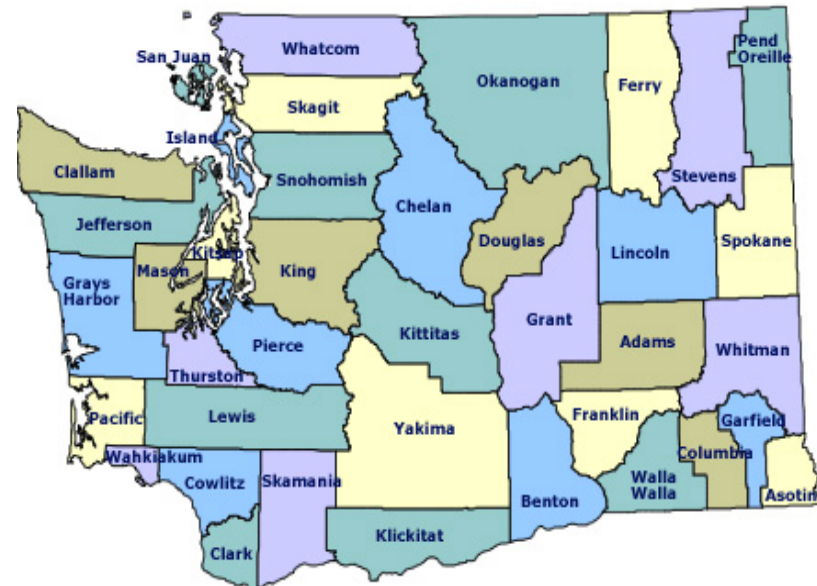
Framework: Positive Deviance

- Used to identify and learn from units that perform beyond expectations
- Defined by context
- Performance Improvement

Context is Everything

Framework: Positive Deviance Method

Step 1:
Identify "positive deviants ", i.e., organizations that consistently demonstrate exceptionally high performance in an area of interest.

Step 2:
Study organizations in-depth using qualitative methods to generate hypotheses about practices that allow organizations to achieve top performance.

Step 3:
Test hypotheses statistically in larger, representative samples of organizations.

Step 4:
Work in partnership with key stakeholders, including potential adopters, to disseminate the evidence about newly characterized best practices.

Framework: Realist Evaluation (Pawson and Tilley)

Context: LHD environment (budget, population, geography)

Mechanisms: leadership, partnerships, service provisions

Outcomes:

- Teen pregnancy rates
- Low birth weight
- Pre-natal care
- Infant mortality rate

Context

Mechanism

Outcome
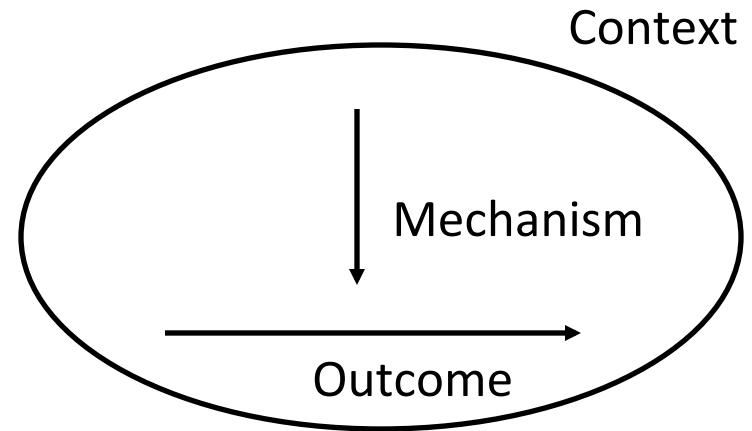
$$C + M = O$$

Methods

1) Quantitative analysis to identify Positive Deviants

2) In-depth interviews with positive deviants

Methods - Quantitative

- 2009-2010 Public Health Activities and Services Tracking (PHAST) data for WA (n=35)
  - uniquely detailed and matched annual MCH-related county-level expenditure data

Public Health Activities & Services Tracking

Multiple Regression: Contextual Factors & Modifiable Activities

- Types of factors:
  - (Z) were those over which LHDs have no control, including population size, geography, and (arguably) the size of their budgets.
  - (X) Variables over which LHD leaders and boards have some internal control (X), such as assuring service through alternative providers in the community, having a clinician as an LHDs "top executive," and the types of services the LHD provides.
  - (Y) MCH health outcomes in terms of county-level rates of teen births, late or no prenatal care, infant mortality, and the percent of low weight births.

Methods: Quantitative

- **Step 1:** Regressed $Y=a+b^1(Z)+e$ to assess variance explained by factors outside of LHD control (Context)

- **Step 2:** Added X variables $Y=a+b^1(Z)+b2(X)+e$ to assess variance explained by LHD-controlled variables (Mechanism)

- **Step 3:** Likelihood ratio test to determine whether the internal control variables improved the explanatory power of the model

See: Klaiman, T.; Pantazis, A.; Bekemeier, B. (2014). "A Method for Identifying Positive Deviant Local Health Departments in Maternal and Child Health." *Frontiers in Public Health Systems and Services Research*. 3(2): Article 5. Available at http://uknowledge.uky.edu/frontiersinphssr/vol3/iss2/5/

WA MCH Description of Positive Deviants

- *Rural*
  - 11 total LHDs, 3 (27%) Positive Deviants
- *Micro*
  - 11 total LHDs, 3 (27%) Positive Deviants
- *Metro*
  - 13 total LHDs, 4 (31%) Positive Deviants

Methods – Qualitative

- 1 hour semi-structured phone interviews with LHD staff

  - Administrator and Director of Environmental Health, Community and Family Health Manager, Public Health and Human Services, Administrator, Director of Community and Family Services, Director, Dept. of Public Health and Social Services, Public Health, Public Health Nurse/Nursing Supervisor, Community Health Director

  - 3 focus areas

    - assessment and policy development

    - research and evaluation

    - regulatory oversight

      Mays GP, et al., 2014

  - Contacted 10 Positive Deviants

    - 7 completed interviews (April – October 2014)
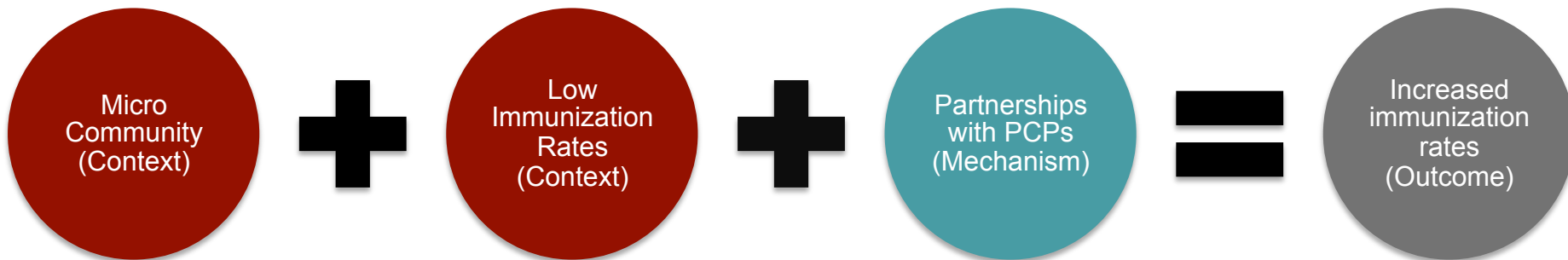
    - 2 declined

    - 1 pending

Results

- Partnerships
  - Community Partnerships
  - School Partnerships
  - Internal Partnerships

Results – Partnerships

"…we worked hard at cultivating our relationships with providers. We work with nursing staff and do more visits with providers to maintain our relationships with providers. That is the best success story we have." – Micro LHD discussing immunization registries

Micro Community (Context) **+** Low Immunization Rates (Context) **+** Partnerships with PCPs (Mechanism) **=** Increased immunization rates (Outcome)

Results – Partnerships

"Build community partnerships, not advocates for your programs … Partnership is where peers come together and develop strategies to reach specific goals… Prevention is not when you already have someone enrolled in a program." – Rural LHD discussing community resilience partnerships
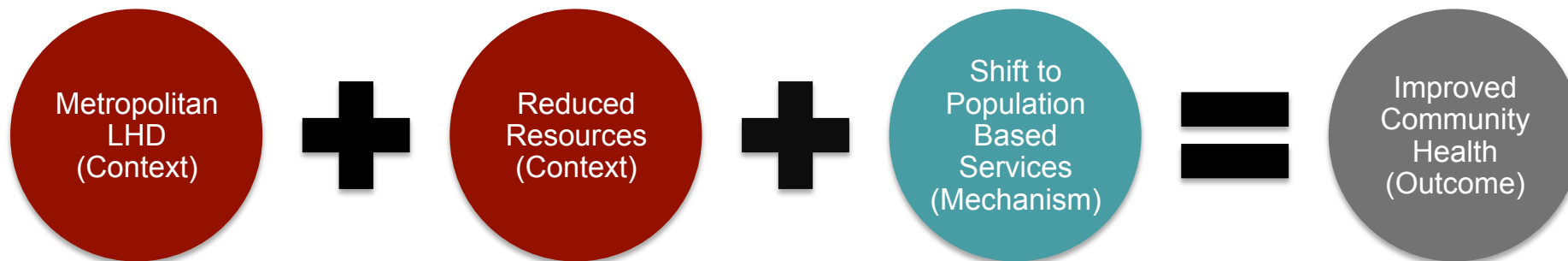

Rural LHD (Context) **+** Community Partnerships (Mechanism) **=** Community Resilience (Outcome)

Results

- ## Clearly Defined Goals
  - ### Direct Service
  - ### Population Based Services
  - ### Evidence-Based
    - CHA/CHIP Process
    - Hospital CHNA Process

Results – Clearly Defined Goals

"…we have enhanced our ability to influence a … larger population with this new approach... We may not be targeting them on a one on one bases, but we are greatly impacting the conditions in which we live work and play, which is significantly enhancing their lives. This will improve their health and the health of their children." – Metro LHD discussing shift of services

Metropolitan LHD (Context) **+** Reduced Resources (Context) **+** Shift to Population Based Services (Mechanism) **=** Improved Community Health (Outcome)

Results - Challenges

- ## Funding

"When it came to basic budget decisions about what to preserve it wasn't a matter of local assessment data. It was more a question about basic public health interventions for the public. Immunizations we know are important because of the leverage of health benefits per population." – Micro LHD discussing termination of home visits

- ## Staff turnover

Implications

- Establishing Partnerships
  - Technical expertise
  - Data analysis
  - Administrative support
- Data-driven Activities
  - Community priorities
  - Population-based services

Next steps

- Complete FL and NY interviews
- Interview negative deviants
- Test theories quantitatively

Thank you!

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  - Michael Stoto, PhD
  - JoAnne Fischer
  - Carol Brady

Questions??