



CT Public Health Practice Based Research Network: Studies of Local Public Health Funding and Services

CT Public Health Association Conference
October 5, 2012



Panelists

- Elaine O’Keefe, Yale School of Public Health
- Jennifer Kertanis, Farmington Valley Health District
- Debbie Humphries, Yale School of Public Health
- Emil Coman, Institute for Community Research
- Steve Huleatt, West Hartford-Bloomfield Health District
- Moira, Lawson, CT Association of Directors of Health



What is Public Health Services & Systems Research?

A field of inquiry examining the *organization*, *financing*, and *delivery* of public health services at local, state and national levels, and the *impact* of these activities on population health

Mays, Halverson, and Scutchfield. 2003



PHSSR History

- Early APHA studies, 1920-1950 on LHDs
- Renewed interest following 1988 IOM report/
emergence of 3 core functions
- Core functions expanded to 10 ES
- CF/ES underpin contemporary PHSSR
- CDC pilot studies of PH performance
- NACCHO develops tools (APEXPH)
- CDC NPHPSP
- PH Accreditation movement



State of the Field

- CDC convened group to produce PHSSR research agenda in 2006
- Relatively under-funded and young field vs. health systems research
- Mostly descriptive studies (e.g. NACCHO profiles)
- No objective, validated methods to measure quality of PH practice re. effectiveness, timeliness, efficiency, etc.
- Decision makers increasingly interested in health/economic impact of PH activities but few studies exist that can isolate these effects
- RWJF \$10 million commitment to PHSSR



What is Practice-Based Research in Public Health?

- Research that tests effectiveness & impact of public health practices in real-world **public health settings**
- Research designed to address uncertainties and information needs of real-world public health **decision-makers**
- Research that evaluates the implementation and impact of **innovations in practice**
- Research that uses **observations generated through public health practice** to produce new knowledge



More than

75%

**of total U.S. healthcare costs derive from
preventable conditions**

Thorpe KE, Odgen L. What accounts for the rise in health care spending? Emory University, 2008.



Less than

3%

**of total U.S. health expenditures are devoted
to public health & prevention**



**U.S. communities that increased public health
spending by 10% experienced an**

8%

**reduction in preventable mortality rates
over the 1993-2008 period**

Mays GP, Smith SA. Evidence links increases in public health spending to declines in preventable deaths. Health Affairs. 2011



Less than

1%

**of federal health research spending
supports delivery system research**

Woolf SH, Johnson RE. The break-even point: when medical advances are less important than improving the fidelity with which they are delivered. *Ann Fam Med*. 2005



Examples of Promising Areas for Future Research

- Impacts of consolidation of regionalization initiatives on service delivery and health outcomes
- Specific board powers and duties that are most influential in improving public health system performance
- Effects of legal reforms on public health system operations and outcomes
- Impact of accreditation programs and/or performance standards on improving public health organizational capacity
- Impact of workforce training and education programs on system-level performance and outcomes



Public Health PBRN Defined

“A collection of PH agencies and partners engaged in ongoing collaboration with academic researchers to conduct applied studies of strategies for organizing, financing and delivering PH services in real world community settings”*

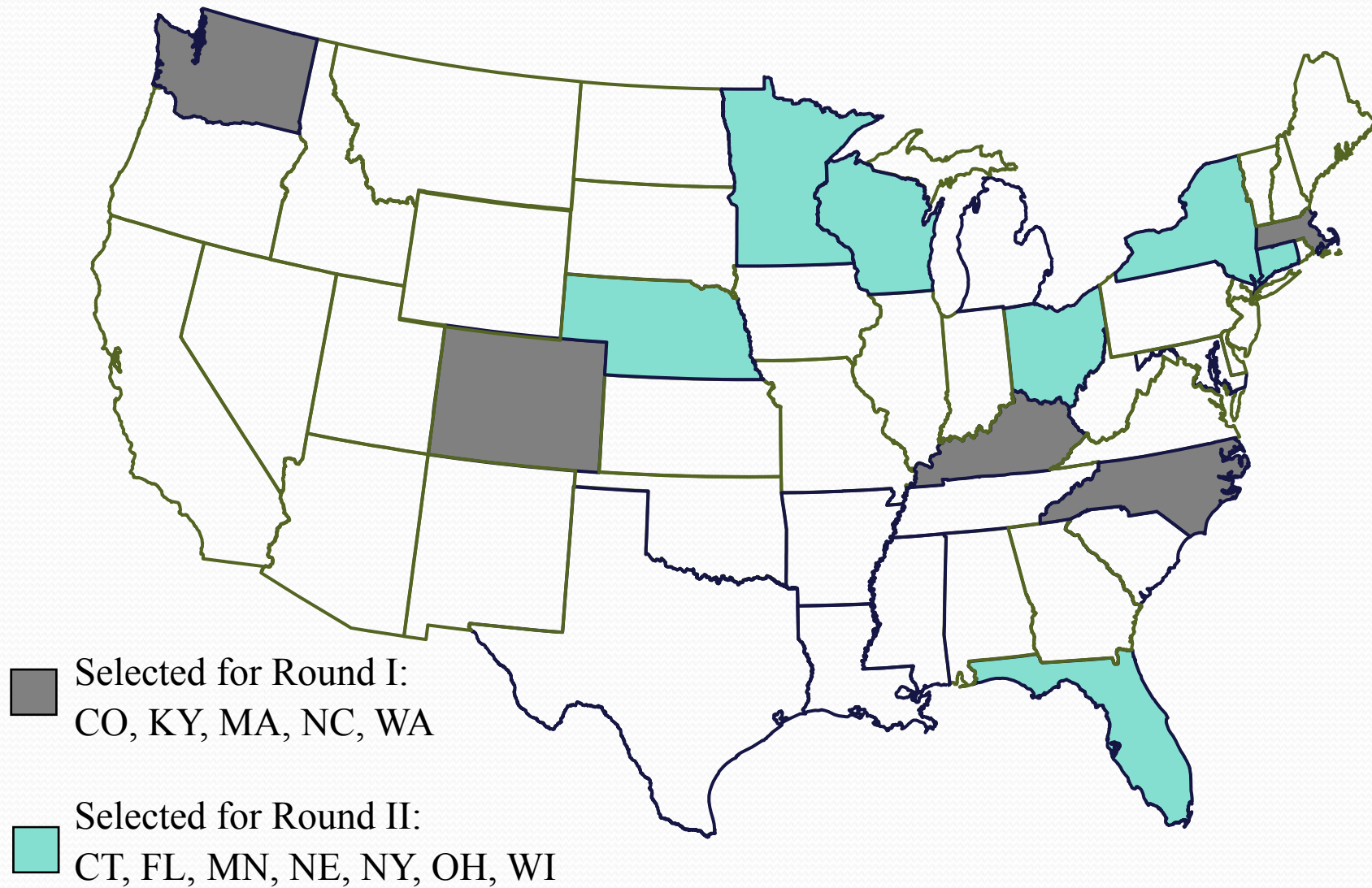
* PHPBRN National Coordinating Center Overview Document



Activities of the Public Health PBRN Program

- Develop up to 15 public health PBRNs over 4 year period
- Two-year grants for infrastructure development and initial studies
- Additional funding opportunities for research implementation
- National coordinating office
 - Support network development
 - Expert consultation on research projects
 - Coordinate multi-network research studies
 - Diffuse findings and lessons learned

PBRN Sites: Rounds I and II

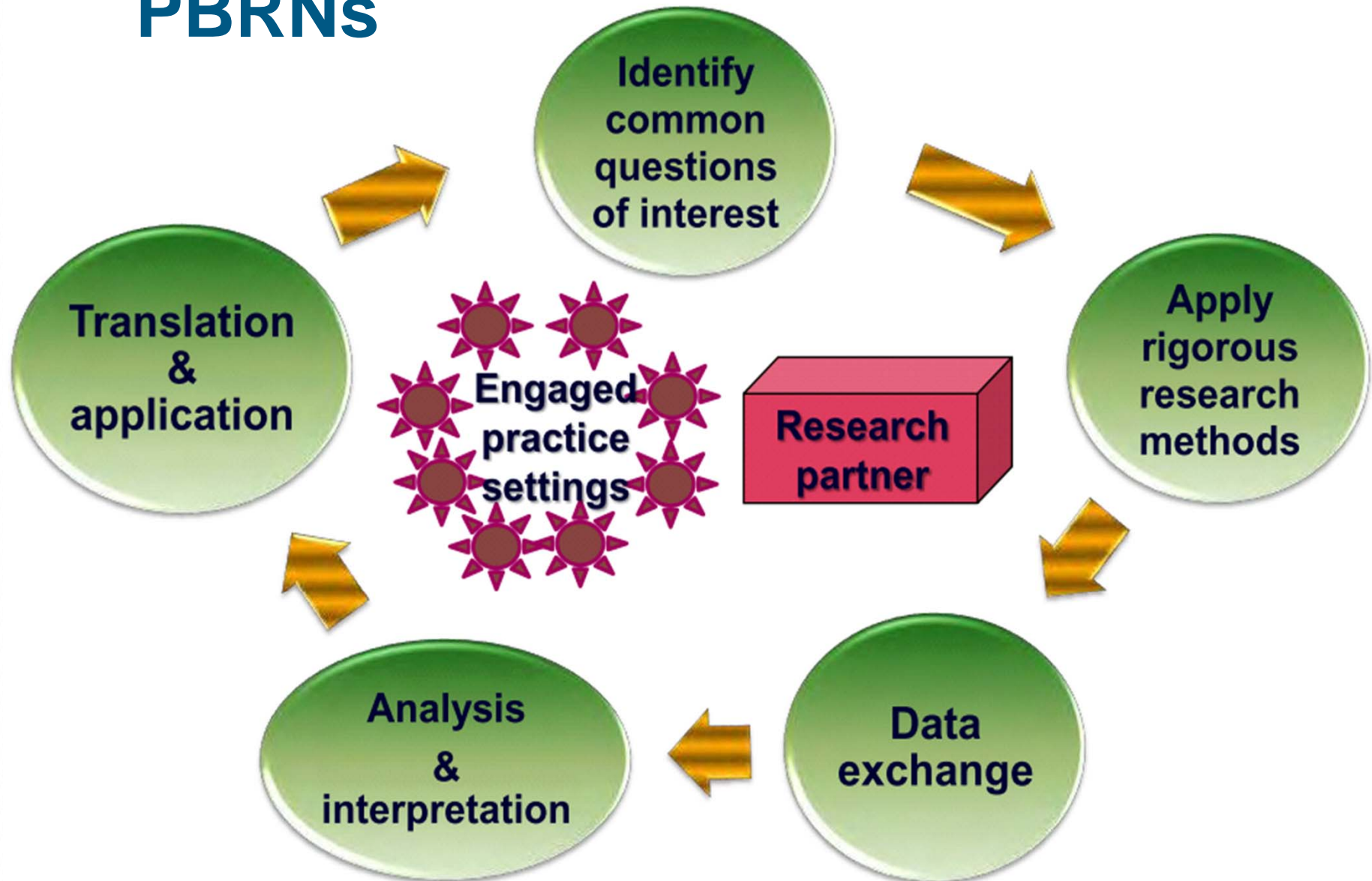




Goals of the CT PBRN

- Increase understanding of PHSSR
- Develop applied public health research agenda for CT
- Coalesce the research expertise in CT
- Enhance evidence base of public health
- Better position public health system for eventual accreditation
- Contribute to national PHSSR

The Logic of PBRNs





Key Elements of a Public Health PBRN

- State or local agency to serve as lead convener
- Multiple practice settings available for study
- Champion within each practice site
- Research partner with design and analysis expertise
- Regular communication among participants
- Feasible and relevant initial research projects
- Dedicated staff time for research facilitation



Activities of CT PBRN

- Establish Leadership Team
- Orient CADH membership
- Identify Research Needs and Interests
- Established practice-driven research agenda
- Implement Research Projects
- Expand PBRN and seek to sustain Network

Examples of PBRN Studies

- ***Comparative case studies***: document processes, identify scope and scale of problems, examine innovations
- ***Large-scale observational studies***: document practice variation across public health settings; identify causes & consequences of variation
- ***Adoption/diffusion studies***: identify the pace patterns through which evidence-based practices are adopted, and factors that facilitate and inhibit adoption
- ***Quality improvement studies***: evaluate strategies for improving program operations & outcomes
- ***Policy evaluations and natural experiments***: monitor effects of key policy & administrative changes



CT PBRN

Practice-driven Research Agenda

- **Local Public Health Structure (size, organization, department type)**
 - Does larger mean improved and/or better services?
- **Cost Effectiveness**
 - Does larger mean more cost effective?
 - Are Districts more cost effective than municipal departments?
- **Financing of Local Public Health**
 - Implications of budget cuts on local health departments (size, type)



CT PBRN

Practice-driven Research Agenda

- **Local Public Health Workforce**
 - Where is the next generation of public health workers coming from? –forecasting?
- **Quality Improvement**
 - Why do local health departments do/provide public health services differently?



Early Research of the CT PBRN

- 2010 Legislative Initiative
 - Reduced or eliminated funding to 43/77 LHDs
 - Municipal departments serving fewer than 50,000
 - Districts serving 2-towns with total population fewer than 50,000
 - Effort to advance more regionalization
 - Natural experiment-prime for investigation



“Quick Strike Research”

- Explore immediate and anticipated impact of funding cuts
- Explore intentions regarding consolidation or shared service arrangements

David Gregorio, PhD
University of Connecticut

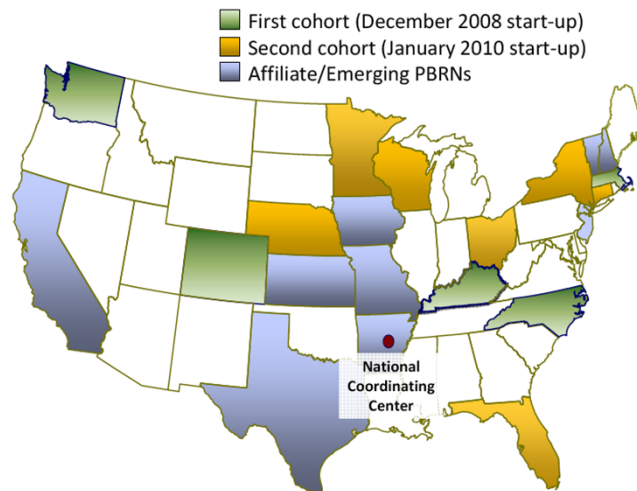


Findings

- No appreciable effect seen among small departments
- Workforce reductions in two or more job categories reported by 26% of affected departments and 47% of unaffected departments
- Few departments reported intentions to regionalize as result of cuts

Revenue Streams & Service Delivery in Connecticut Local Health Jurisdictions 2001-2010

Public Health Practice-Based Research
Networks (PBRN) Program



Debbie Humphries
Yale School of Public Health
CT Public Health Association
October 5, 2012



CADH

Connecticut Association
of Directors of Health

Financial Disclosure: The presenter has had no relevant financial relationships during the past 12 months.



Background

- Study was funded by the Connecticut Practice-Based Research Network (PBRN)
- Motivation for study: Concerns that the recession of 2007-2009 had reduced Local Health Jurisdictions' (LHJs) revenue and that LHJs would be adjusting their service mix in response
- Connecticut health jurisdiction structure:
 - 106 LHJs in 2001 → 75 LHJs in 2011
 - Full-time single town/city (n=29)
 - Part-time single town (n=25)
 - District with multiple towns/cities (n=21)



Research questions

1. How has the profile of LHJ revenues and services changed over the 2001-2010 period?
2. Were changes in economic conditions, as measured by unemployment and housing permits, associated with changes in fee revenue or service provision?
3. Did other factors besides local economic conditions, such as type of LHJ, explain variation in fee revenue and service provision over time?
4. What coping mechanisms did LHJs use to respond to economic downturns and reduced revenues?



Methods used

Two phases: (1) quantitative, (2) qualitative

(1) Quantitative analysis

- Used annual report data submitted to DPH by LHJs for the years 2001-2010
- Supplemented with other Connecticut data on unemployment, housing, population, rural towns
- Described trends over time in fees and services
- Used regression models to test which factors explained variation in fees and services over time



Methods used

(2) Qualitative analysis

- Interviews with 17 Directors of Health for 20 LHJs
- Purposive sample across types of LHJs
 - 6 of 18 urban districts; 1 of 2 rural districts
 - 6 of 10 urban full time
 - 2 of 12 urban part time; 5 of 13 rural part time
- Interviews recorded and transcribed
- Transcripts coded by two independent reviewers
- Key themes identified around LHJ coping mechanisms in response to reduced revenues
 - Revenue, Services, Staffing, Politics, Partnerships

Service indicator identification

| Desired Indicator Features | | Available in Data Set? |
|--|---|--|
| Mapped to <u>CDC 10</u> essential public health services | ➔ | No, mapped to <u>CT 8</u> essential public health services instead |
| Were available across all 10 years of DPH annual reports | ➔ | Yes |
| Measured <u>quantity</u> of service provision | ➔ | Yes, for 50% of indicators |
| Measured <u>quality</u> of service provision | ➔ | No |
| Showed variation across LHJs and years | ➔ | Yes |

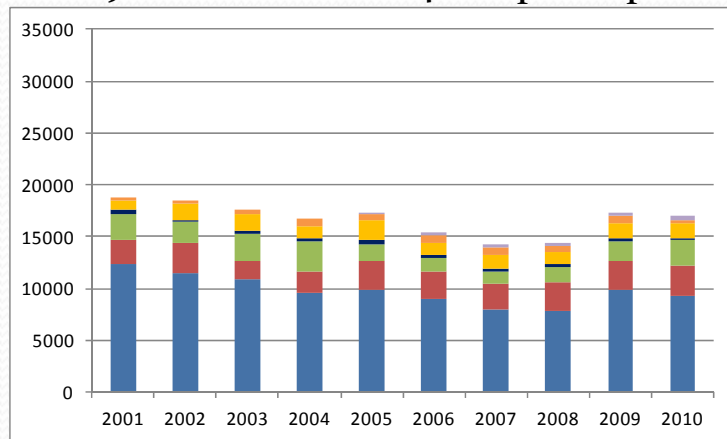
Service indicators used in quantitative analysis

| CT 8 Essential Public Health Service | Indicator |
|--|--|
| Public Health Statistics | Annual report certified |
| Health Education | Health educator (or community outreach worker) on staff |
| Nutritional Services | Dietitian or nutritionist on staff |
| Maternal and Child Health | Number of childhood vaccines offered |
| Communicable & Chronic Disease Control | STD clinical treatment services offered STD partner referral services offered Hep B pregnant positive referral services offered Hep B partner referral services offered Hep A case follow up services offered |
| Environmental Services | Environmental health personnel per 1000 population Septic permits issued per 1000 population Sewage lots tested per 1000 population Well permits issued per 1000 population Percent of required Class 3 food service inspections completed Percent of required Class 4 food service inspections completed |
| Community Nursing Services | Any nurse on staff |
| Emergency Medical Services | <i>None</i> |
| Cross-cutting indicator | Full time equivalents per 1000 population |

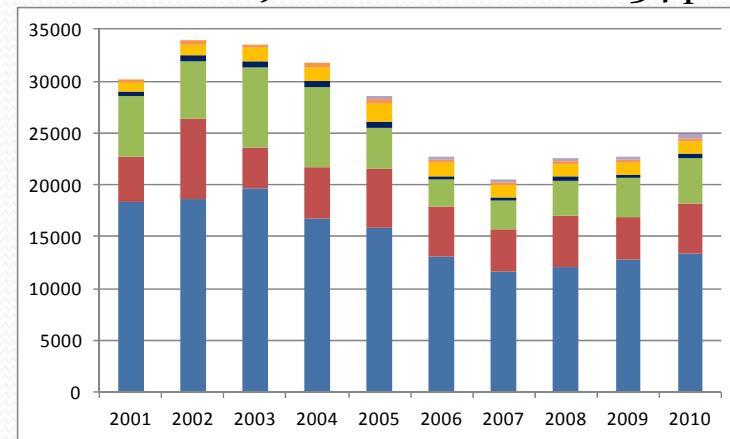
Revenues per 1000 population from each revenue source: annual average across all LHJs (inflation-adjusted 2001 dollars)

■ Local
 ■ State
 ■ Federal
 ■ Other
 ■ License Fees
 ■ Program Fees
 ■ Immunization Clinic Fees

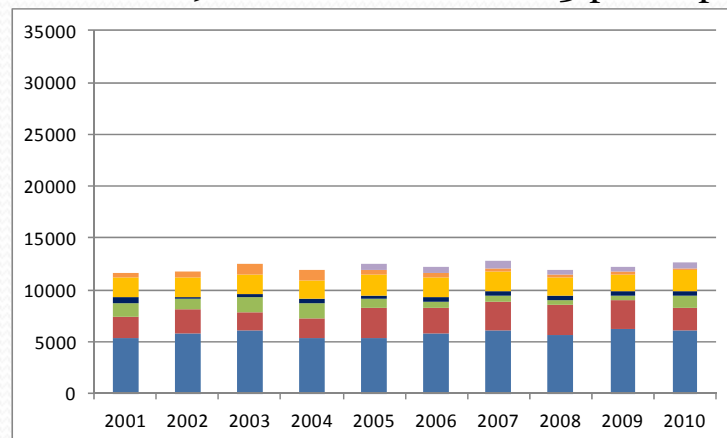
All LHJs: revenues of \$14-\$18 per capita



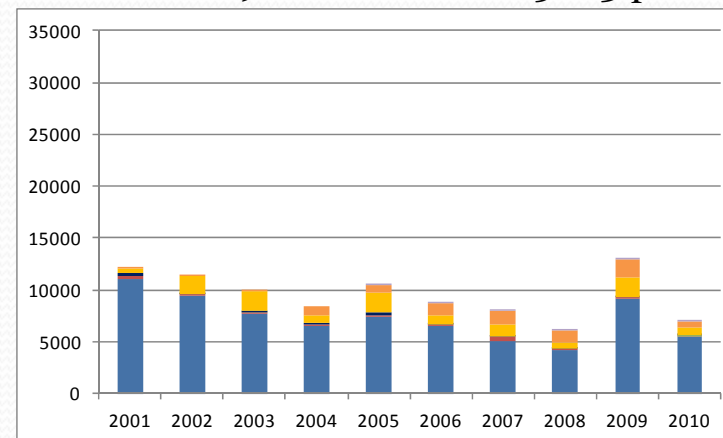
Full Time LHJs: revenues of \$20-\$34 per capita



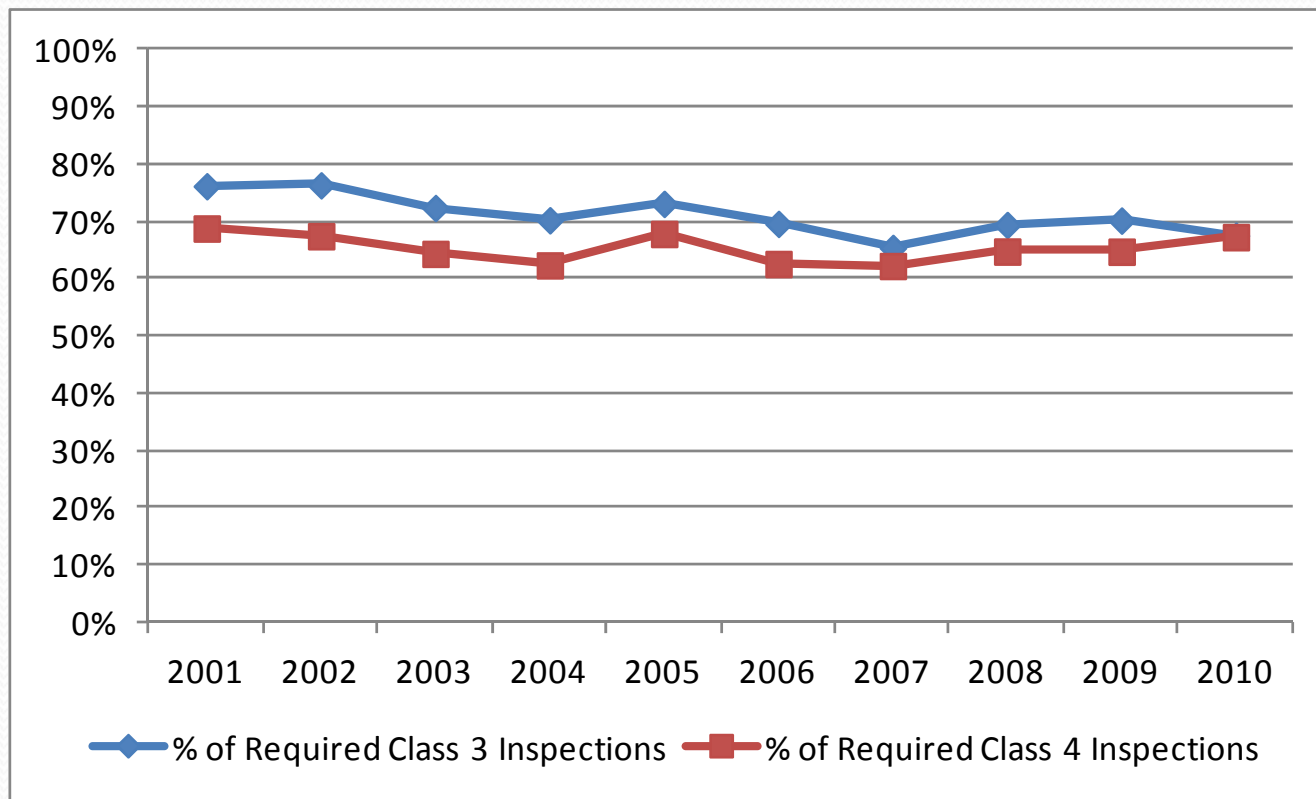
District LHJs: revenues of \$11-\$13 per capita



Part Time LHJs: revenues of \$5-\$13 per capita

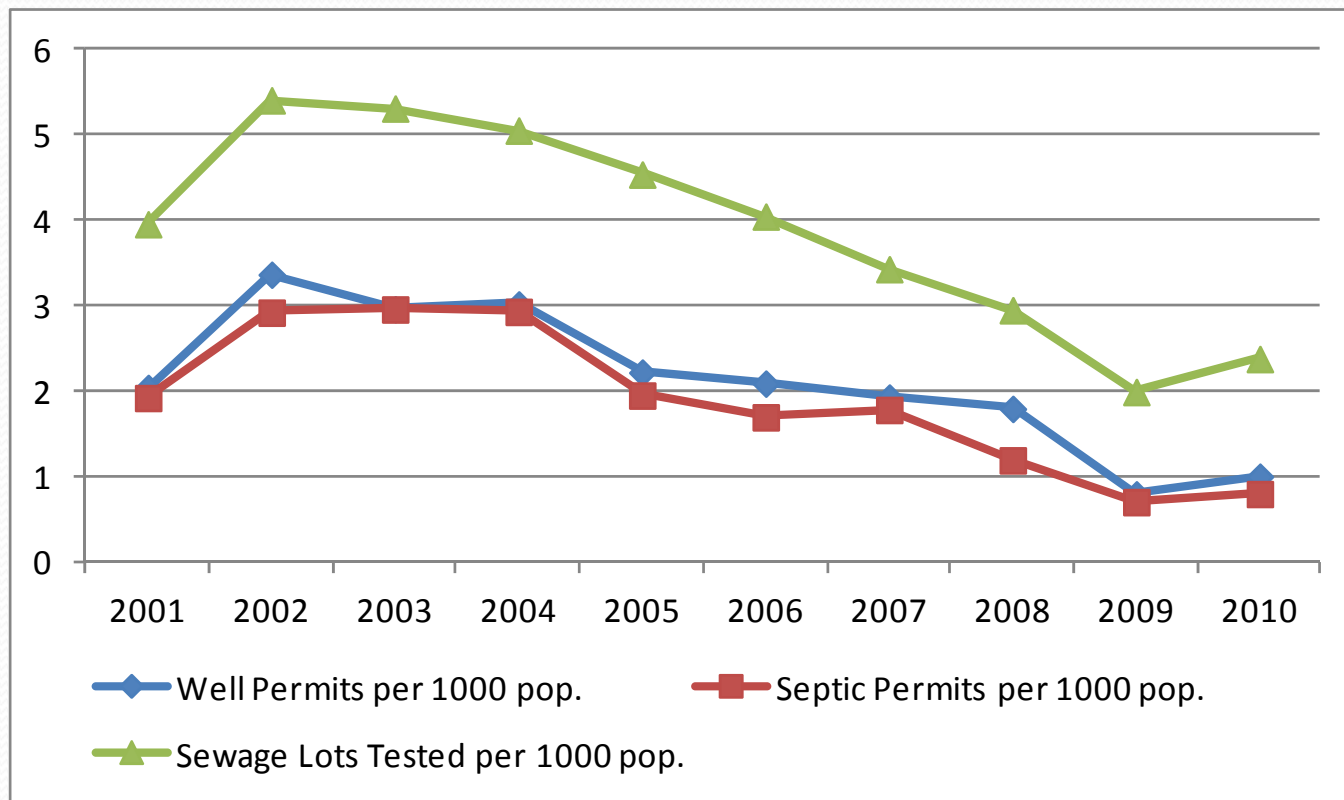


Percent of required Class 3 and Class 4 food service establishment inspections completed: annual average across all LHJs



- Average percent remains at a consistent level (~70%) across all types of LHJs in all years.

Well permits, septic permits, and sewage lots tested per 1000 population: annual average number across all LHJs



- Levels of all three services decline between 2002 and 2009, with slight recovery in 2010.



Quantitative analysis results

- Research Question 1: Descriptive graphs
- Research Question 2:
 - Changes in housing permits were not associated with changes in fee revenue or service provision.
 - Increases in unemployment rate were associated with reductions in some staffing indicators, but not with changes in fee revenue or other services.
- Research Question 3:
 - Rural/urban location was associated with changes in license fees and environmental health service outcomes.
 - LHJ type was associated with changes in program fees, immunization clinic fees, nurse on staff, health educator on staff, and Hep B partner referral.
- Research Question 4: Turn to qualitative analysis to ask Directors of Health how they set fees, choose service offerings, and cope with reduced revenues



Illustrative quotes: LHJ coping mechanisms

- Revenue: *“We can’t control the per capita...and we can charge fees for service. So we started charging fees for service.”* (District)
- Services: *“We’re not doing any of those extra things, but I do believe we are fulfilling our role in the minimum of what public health needs to do in a town.”* (Part Time)
- Services: *“...when financial resources are cut we have—in the past—cut services to accommodate that.”* (District)



Illustrative quotes: LHJ coping mechanisms

- Staffing: *“Over last year we had a serious deficit, which led to a number of layoffs and reductions in programs.”*
(Full Time)
- Staffing: *“...we have on two occasions and will probably this year do all kinds of minor scheduling and compensation changes and adjustments...so that people will work 33 hours instead of 35. People will have 4 furlough days... We will make all kinds of small adjustments but that’s largely to avoid laying anybody off.”* (District)



Illustrative quotes: LHJ coping mechanisms

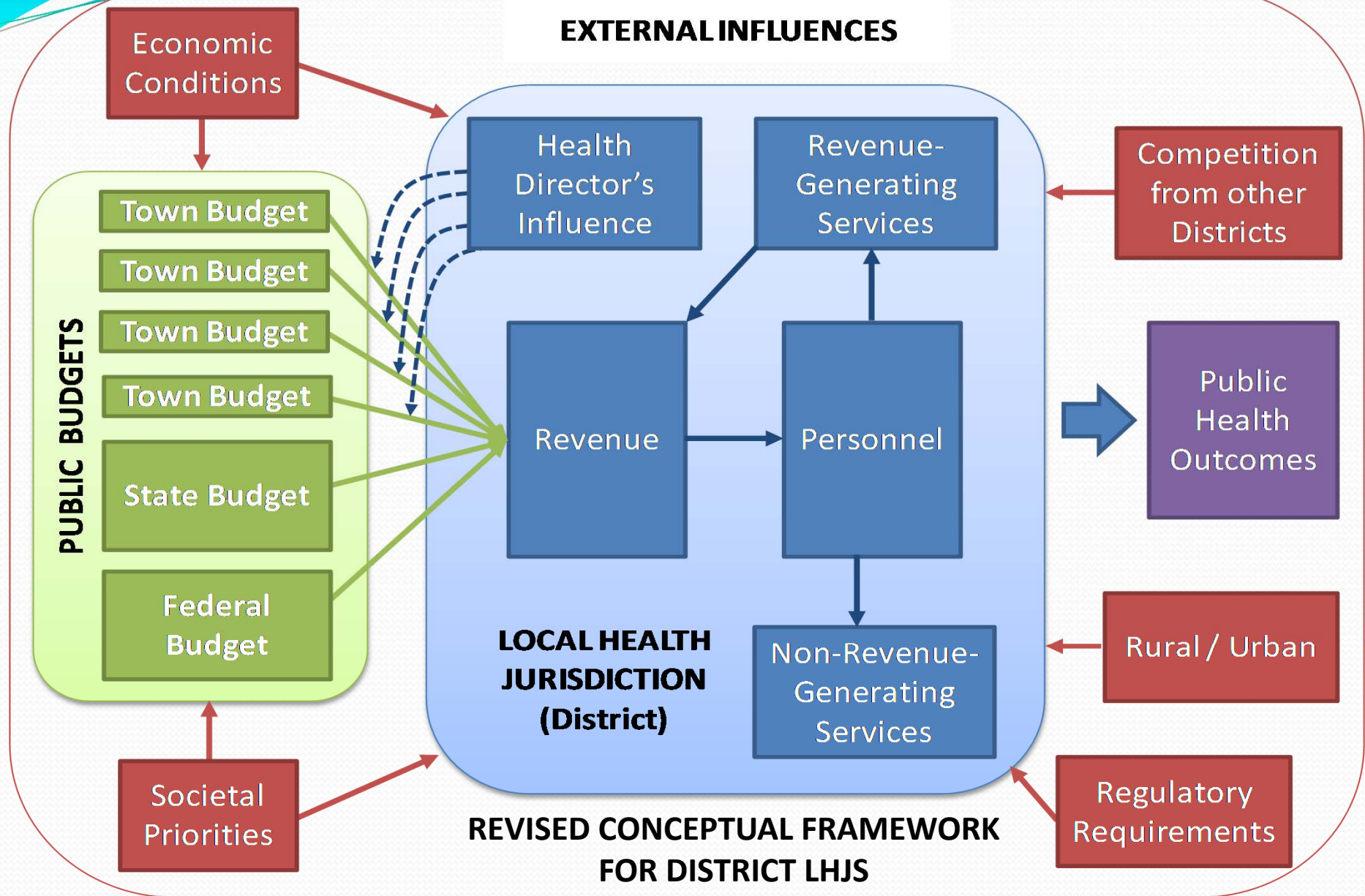
- Politics: *“But as I mentioned the selectmen – our relationship is close. They walk right by my door every day to go to the men’s room or ladies room, and they swerve in here every now and then just to talk with me, or if they receive phone calls about anything related to public health, I’m right here, in the same building.”* (Part Time)
- Partnerships: *“I don’t think that it’s really practical to get an XRF analyzerIn a small community like that every dollar counts, spending in that manner probably wouldn’t be the best use of resources out there when we can get agreements with surrounding areas that can provide those services.”* (Part Time)



Other Key Findings

- Municipal health departments and health districts had different funding streams.
- Districts had more diffuse political influence on member municipalities, and lower revenue from municipalities.
- Districts and part-time health departments had similar per capita revenues.

EXTERNAL INFLUENCES





Conclusions

1. LHJs adjust to economic downturns and reduced revenues in a variety of ways but these adjustments are not captured in the DPH annual report data.
2. LHJ rural/urban location and LHJ district, full time, or part time status are more important predictors of revenues and services than unemployment rate or housing permits.
3. Political support from local government officials is an important determinant of LHJ revenues.
4. Some services are more resistant to changing economic and revenue conditions than others.

Questions?

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With special thanks to:

- Juanita Estrada in the Office of Local Health Administration at the CT DPH for her assistance with the annual report data;
- the LHJ Directors of Health for their willingness to share their experience and perspectives with us.

Local Health Department H1N1 Quality Improvement Measure Development

Steve Huleatt

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Emil Coman

Research project funded by the Robert Wood Johnson
Foundation Practice-Based Research Network in Public Health
(68675); awarded to the Connecticut Association of Directors
of Health CADH Inc.

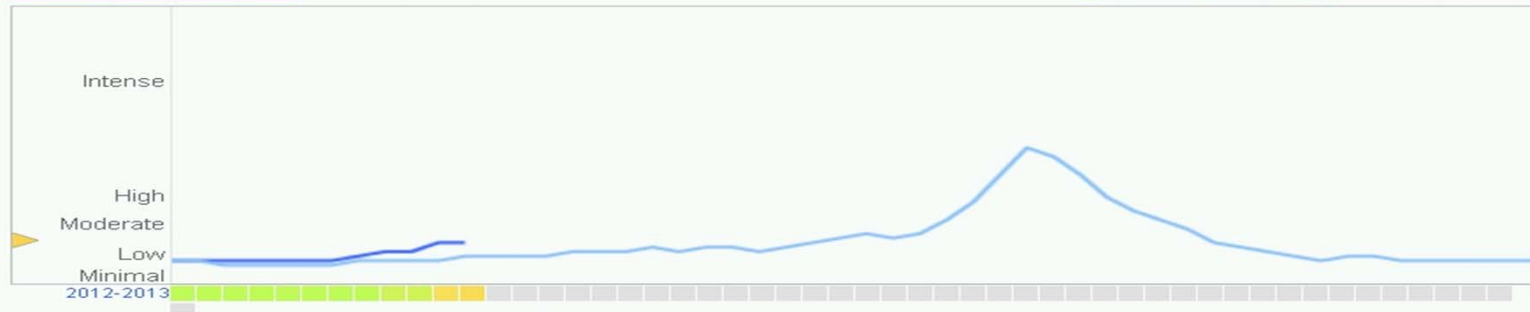
A reminder: historical context

Explore flu trends - United States

We've found that certain search terms are good indicators of flu activity. Google Flu Trends uses aggregated Google search data to estimate flu activity. [Learn more »](#)

United States > Connecticut

● 2012-2013 ● 2007-2008 ▼



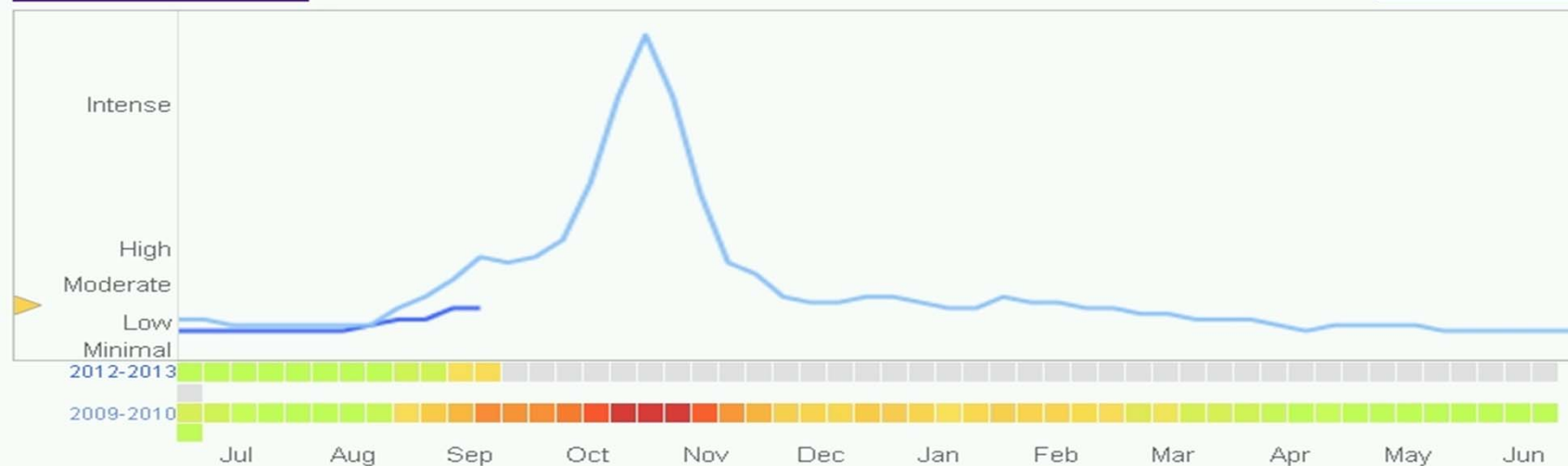
United States > Connecticut

● 2012-2013 ● 2008-2009 ▼



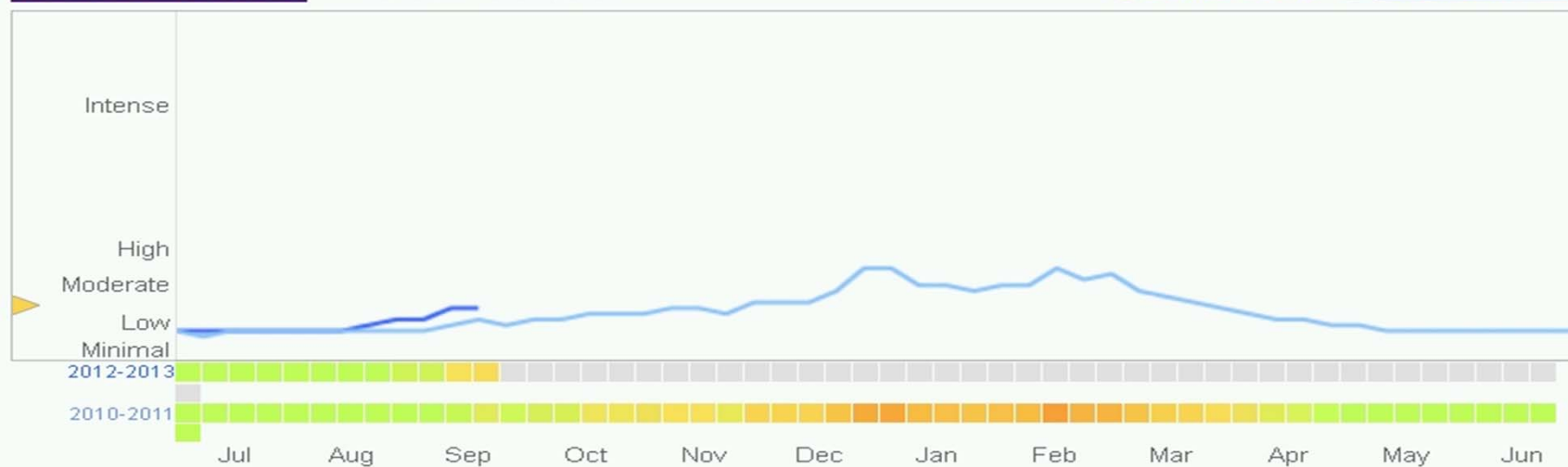
United States > Connecticut

● 2012-2013 ● 2009-2010 ▼



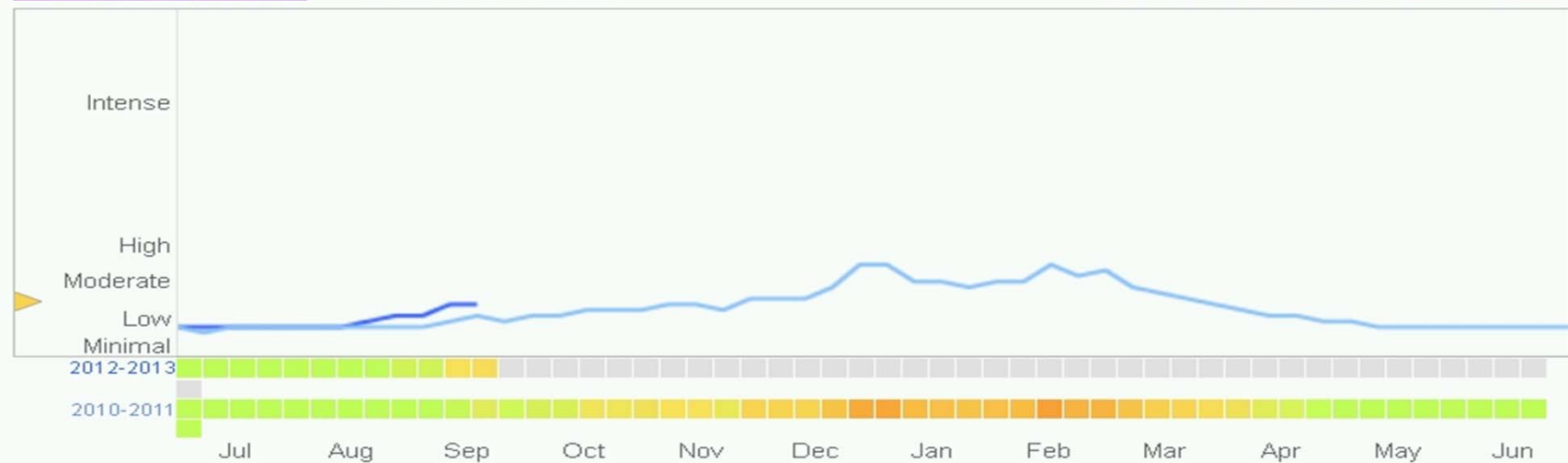
United States > Connecticut

● 2012-2013 ● 2010-2011 ▼



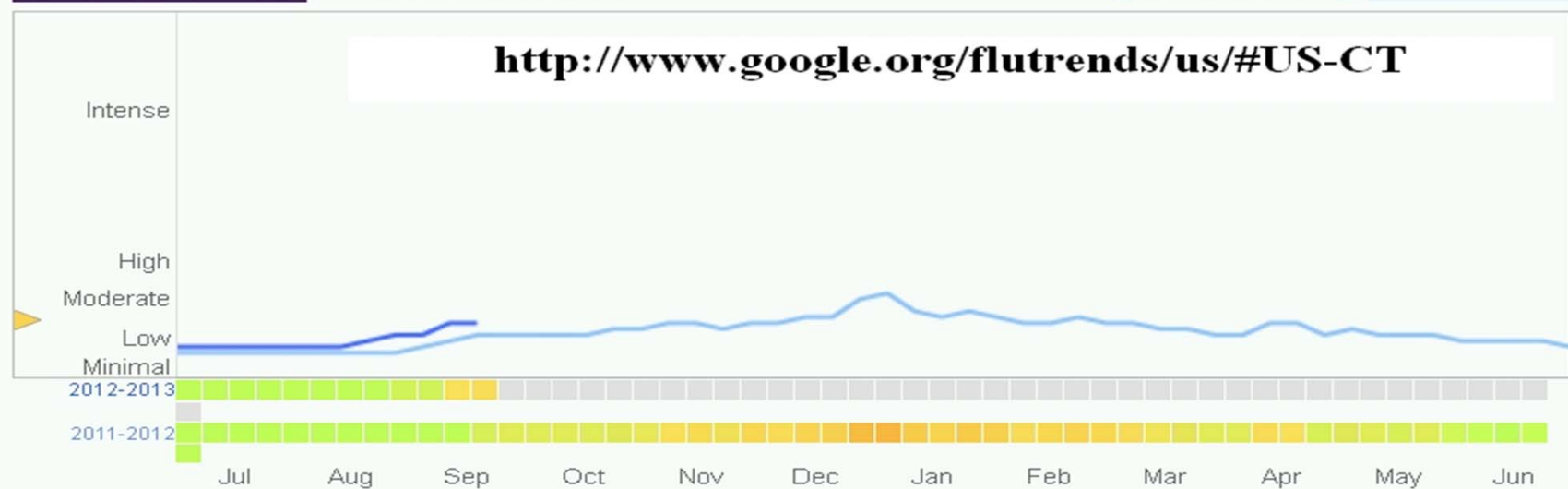
[United States](#) > Connecticut

● 2012-2013 ● 2010-2011 ▼



[United States](#) > Connecticut

● 2012-2013 ● 2011-2012 ▼





H1N1 Quality Improvement Measure Development overview

Strategy

1. Preliminary phase
2. Focus groups
3. Methodological challenges and solutions
4. Survey data collection & preliminary analyses

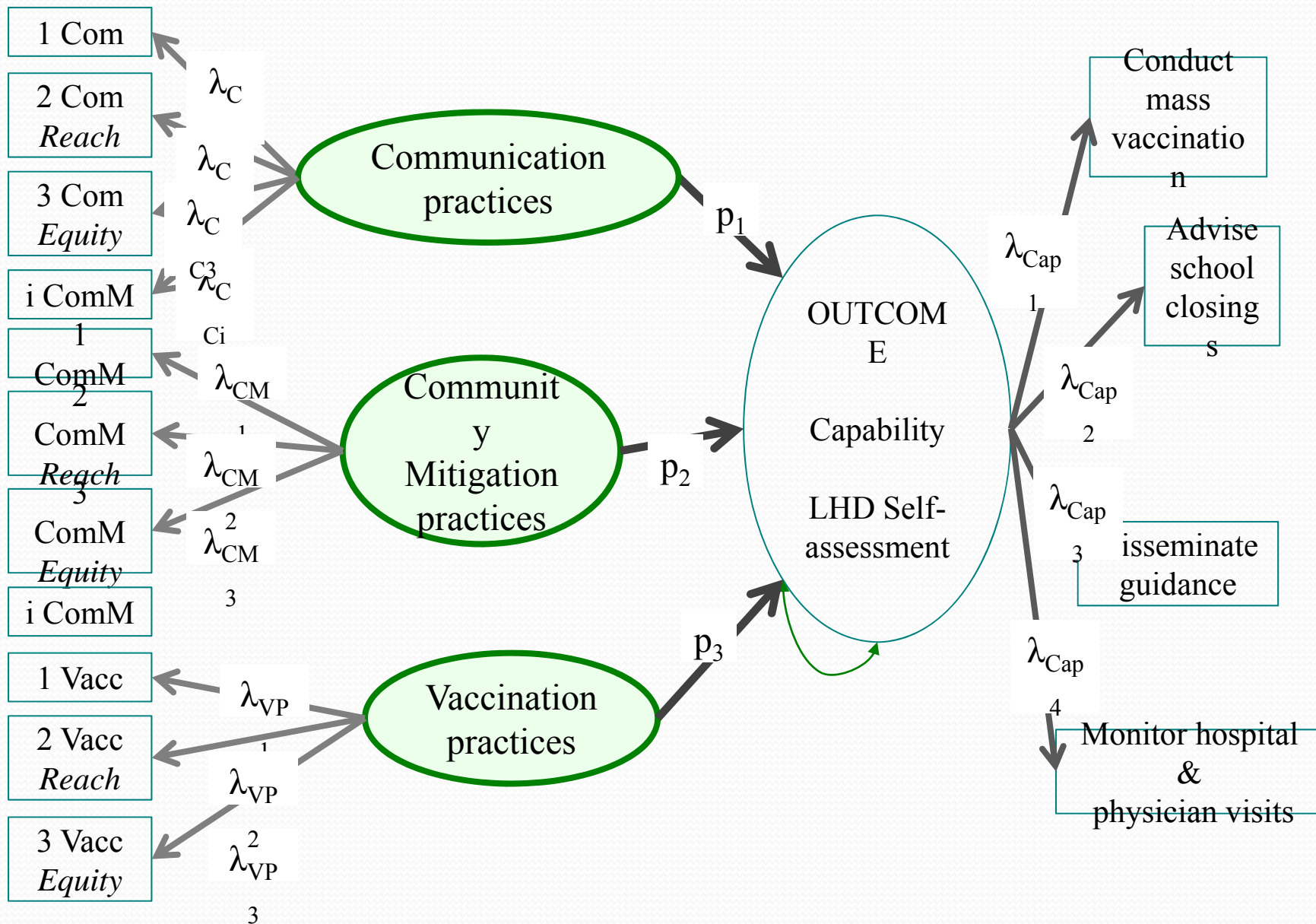


H1N1 Quality Improvement Measure Development 1

1. Preliminary phase

- i. Published literature on PH quality improvement
- ii. Methodological literature consulted
- iii. i and ii informed the expectations for the potential measure content domains:
 - a. Communication and Coordination
 - b. Community Mitigation
 - c. Vaccination practices
- Each domain was then expected to cover three areas of activities:
 - 1. Reach;
 - 2. Equity; and
 - 3. Timeliness

Measurement and causal model design for LHD quality improvement illustration for the vaccine-available phase





H1N1 Quality Improvement 2

2. Focus groups

- i. Four focus group sessions were organized with LHD representatives
- ii. Some guiding themes for discussions were:
 - a. Their LHD role in influenza vaccination in general
 - b. Specific activities during H1N1 – pre-vaccine and after vaccine became available
 - c. Barriers and obstacles during H1N1 for LHD
 - d. How LHD communicated to the community
- iii. Limitations:
 - Memory bias – dealt with by refreshing it with a memory jog

H1N1 QI Focus groups memory jog example

CT PBRN H1N1 Quality Study Selected Events in Chronologic Sequence for Focus Group Reflection Fall 2011

Novel H1N1 Recognition Events April 24th to April 28th

- Reported Cases Swine Flu in Texas and California
- NYCDHMH report possible cases of Swine Flu at School in Queens
- Governor Orders LHDs to Closely Monitor Swine Flu
- Governor Announces First Probable Case of Swine Flu
- Governor Announces Release of Antivirals to Healthcare Facilities
- Gov Rell Press Release Swine Flu Probable at Fairfield Univ.
- CDC Advisories; CDC Travelers Health Alert
- CDC issues interim guidelines for Swine Flu
- CDC CERC message Swine Flu basics
- CTDPH initiates conference calls for LHDs
- CTDPH releases CDC interim Non-clinical Community Mitigation guidance
- CTDPH Swine Flu in Schools Advisory
- CTDPH releases CDC guidance for pregnant women
- CTDPH releases link to guidance advisory for child care programs
- CTDPH releases Guidance to EMS workers
- CTDPH releases CDC Documents on Epidemic Response to Swine Flu dated 4/29/2009

H1N1 response focus group participants, Fall 2011

State of Connecticut Local Health Departments and Districts, July 2010

Health Districts^{1,2}

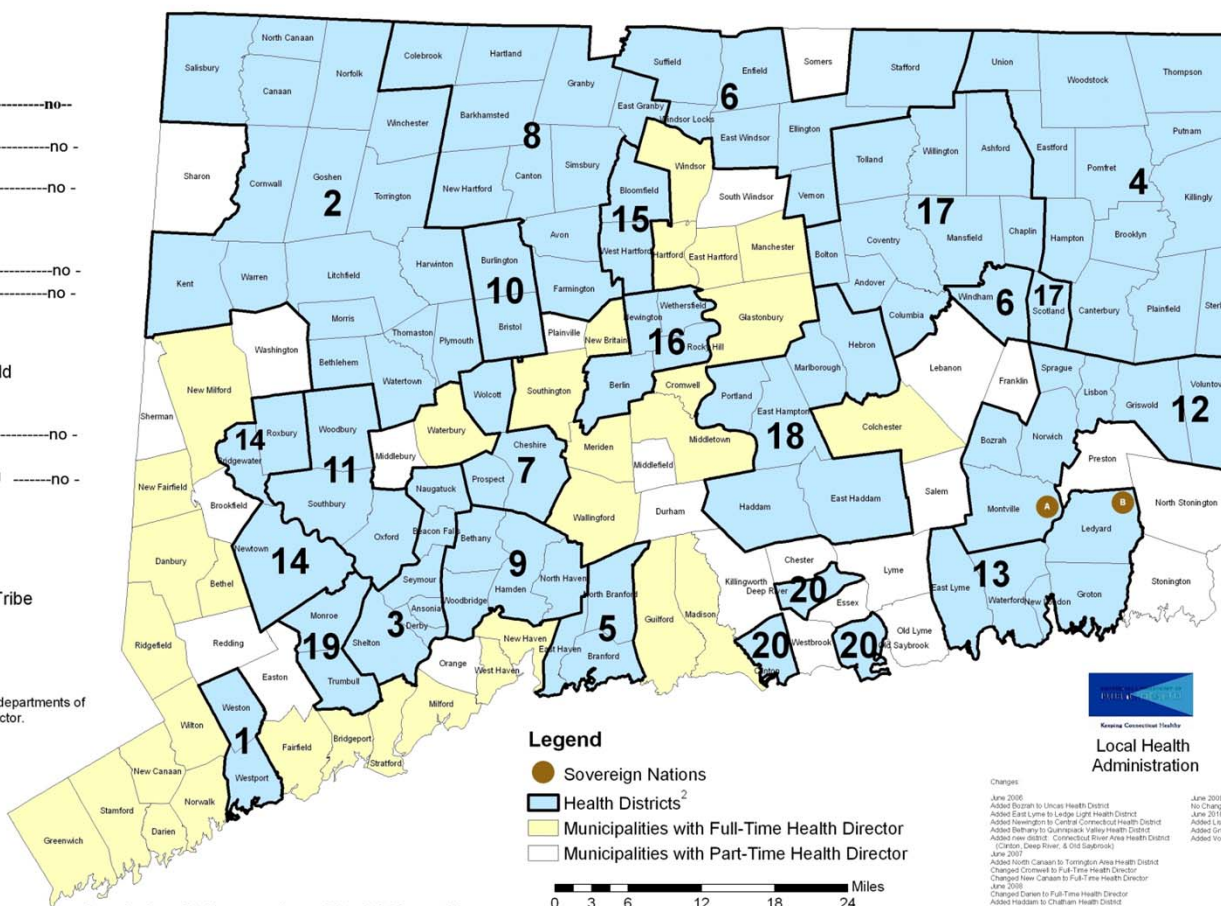
- 1 Westport Weston
- 2 Torrington Area -----no--
- 3 Naugatuck Valley
- 4 Northeast -----no -
- 5 East Shore
- 6 North Central -----no -
- 7 Chesprocott
- 8 Farmington Valley
- 9 Quinnipiac Valley
- 10 Bristol-Burlington -----no -
- 11 Pomperaug -----no -
- 12 Uncas
- 13 Ledge Light
- 14 Newtown
- 15 West Hartford-Bloomfield
- 16 Central Connecticut
- 17 Eastern Highlands
- 18 Chatham -----no -
- 19 Trumbull-Monroe
- 20 Connecticut River Area -----no -

Sovereign Nations

- A Mohegan Tribe
B Mashantucket Pequot Tribe

¹Numbers are assigned by date of formation of Health Districts.

²Health Districts are defined as towns, cities, boroughs united to form district departments of health and have a full-time Health Director.



Local Health Administration

Changes

June 2008
Added South to Uncas Health District
Added East Lyme to Ledge Light Health District
Added Naugatuck to Central Connecticut Health District
Added Bethany to Quinnipiac Valley Health District
Added new district - Connecticut River Area Health District (Cheshire, Deep River, & Old Saybrook)
June 2007
Added North Canaan to Torrington Area Health District
Changed Cromwell to Full-Time Health Director
Changed New Canaan to Full-Time Health Director
June 2006
Changed Danvers to Full-Time Health Director
Added Haddam to Chatham Health District

June 2009
No Changes
June 2010
Added Lisbon to Uncas Health District
Added Groton to Uncas Health District
Added Voluntown to Uncas Health District

H1N1 QI Methodological challenges 3

3. Methodological challenges and solutions

❑ Formative constructs (FC) vs. effect-indicator scales

- i. Causality is directed from the indicators to the construct
- ii. Formative indicators may not be interchangeable
- iii. Formative indicators are not required to covary
- iv. It is not necessary for the indicators to have the same antecedents and consequences

❑ For content validity testing

Evaluate validity coefficients (formative item weights γ 's)

Assess the extent of measurement error by

Interpretation of FC depends on the dependent (outcome) variables

1. Bollen KA, Lennox R. Conventional wisdom on measurement: A structural equation perspective. *Psychological Bulletin*. 1991;110(2):305-314.
2. Petter S, Straub D, Rai A. Specifying formative constructs in information systems research. *Mis Quarterly*. 2007;31(4):623-656.
3. Diamantopoulos A, Winklhofer H. Index construction with formative indicators: An alternative to scale development. *Journal of Marketing Research*. 2001;38(2):269-277.
4. Edwards JR, Bagozzi RP. On the nature and direction of relationships between constructs and measures. *Psychological Methods*. 2000;5(2):155-174.

H1N1 QI survey 4

4. Survey data explorations and preliminary analyses

- i. The questionnaire was administered online through www.surveymonkey.com.
- ii. The questionnaire was confidential, and data was merged with data from annual reports provided by CADH.
- iii. 47 LHD representatives completed the survey: 23 full time (a median of 13.7 FTE), 8 part time (1.2 FTE), and 16 districts (8.85 FTE).

| LHDs in CT | FTE | Total Revenue | Total Fees |
|-------------------|------------|----------------------|-------------------|
| Part time | 1.2 | 104,563 | 2,789 |
| Full time | 13.7 | 1,236,300 | 105,577 |
| District | 8.9 | 1,170,000 | 247,634 |

H1N1 Quality Improvement 2

4. Survey memory jog example

8. The following events occurred during the period April 2009-September 2009. How significant were each of these events to your department's specific actions and activities?

| | Not significant at all | Somewhat significant | Very significant | I don't remember |
|--|---------------------------|-------------------------|-----------------------|-----------------------|
| Governor Announces First Probable Case of Swine Flu; swine Flu Probable at Fairfield Univ. | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| CTDPH releases CDC interim Non-clinical Community Mitigation guidance | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| CTDPH Swine Flu in Schools Advisory | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| CTDPH releases CDC guidance for pregnant women | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| CTDPH releases CDC Documents on Epidemic Response to Swine Flu | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Gov. Rell initiates daily press releases of additional cases (and deaths) in CT | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| CTDPH Droplet Transmission and N95 Guidance issued | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| CTDPH CDC revised school and childcare guidance | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |
| Wolcott School closure | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |



H1N1 QI survey 4 cont.

- 13 of them (28%) did not provide vaccination before, and of the 34 who did, 10 did not provided it to children.
- Interestingly, 8 of those who did not provide vaccination before H1N1 did so during that emergency: two LHDs did it once, and 6 others did it every month (Oct. 2009 to Feb. 2010).
- Most of them rated their own performance as good or excellent.

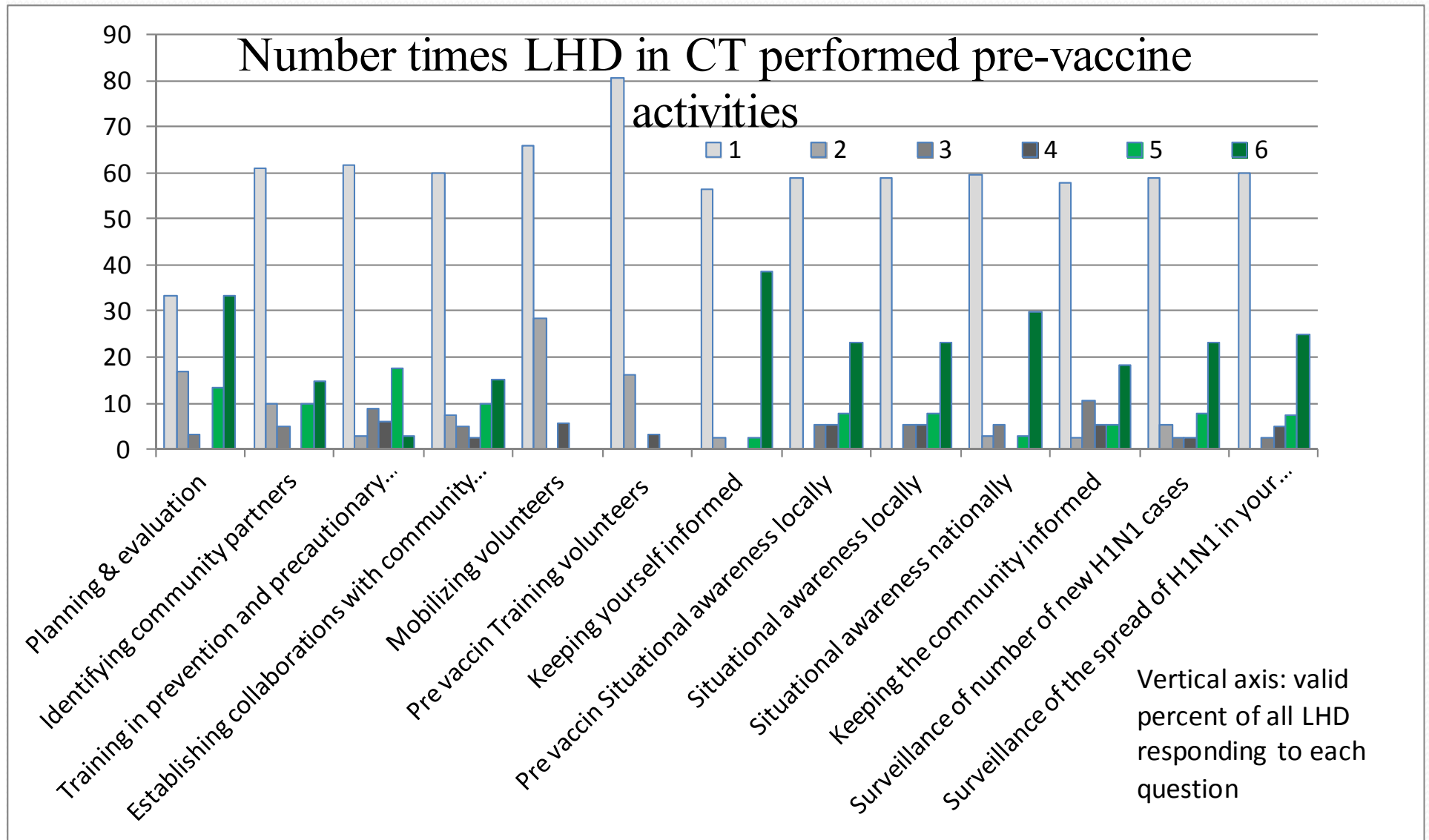
4. Survey analysis

- Capturing time variability in activities

13. Prior to the availability of H1N1 vaccine, when did you initiate and/or conduct any of the following activities?

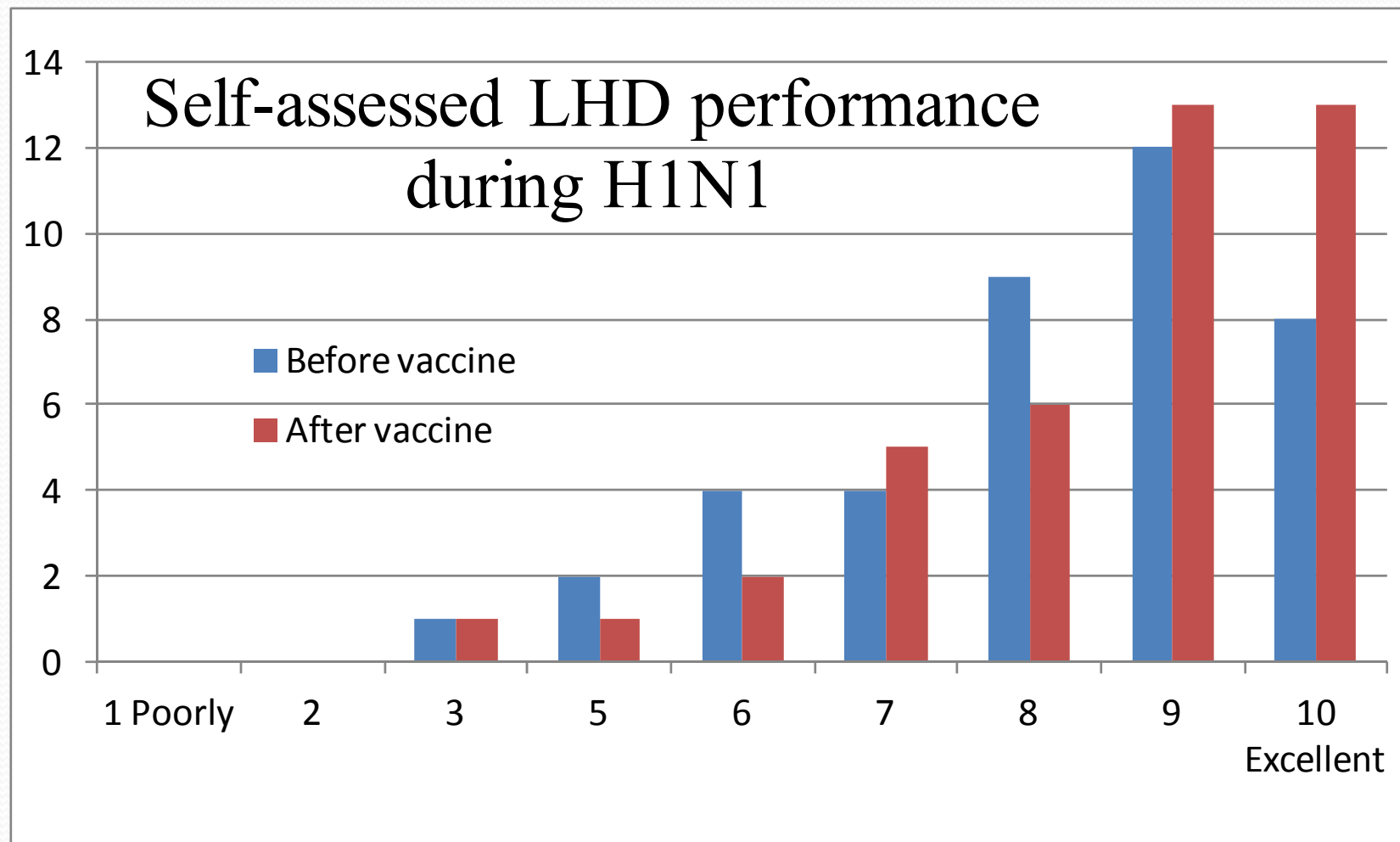
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H1N1 QI time variability in activities

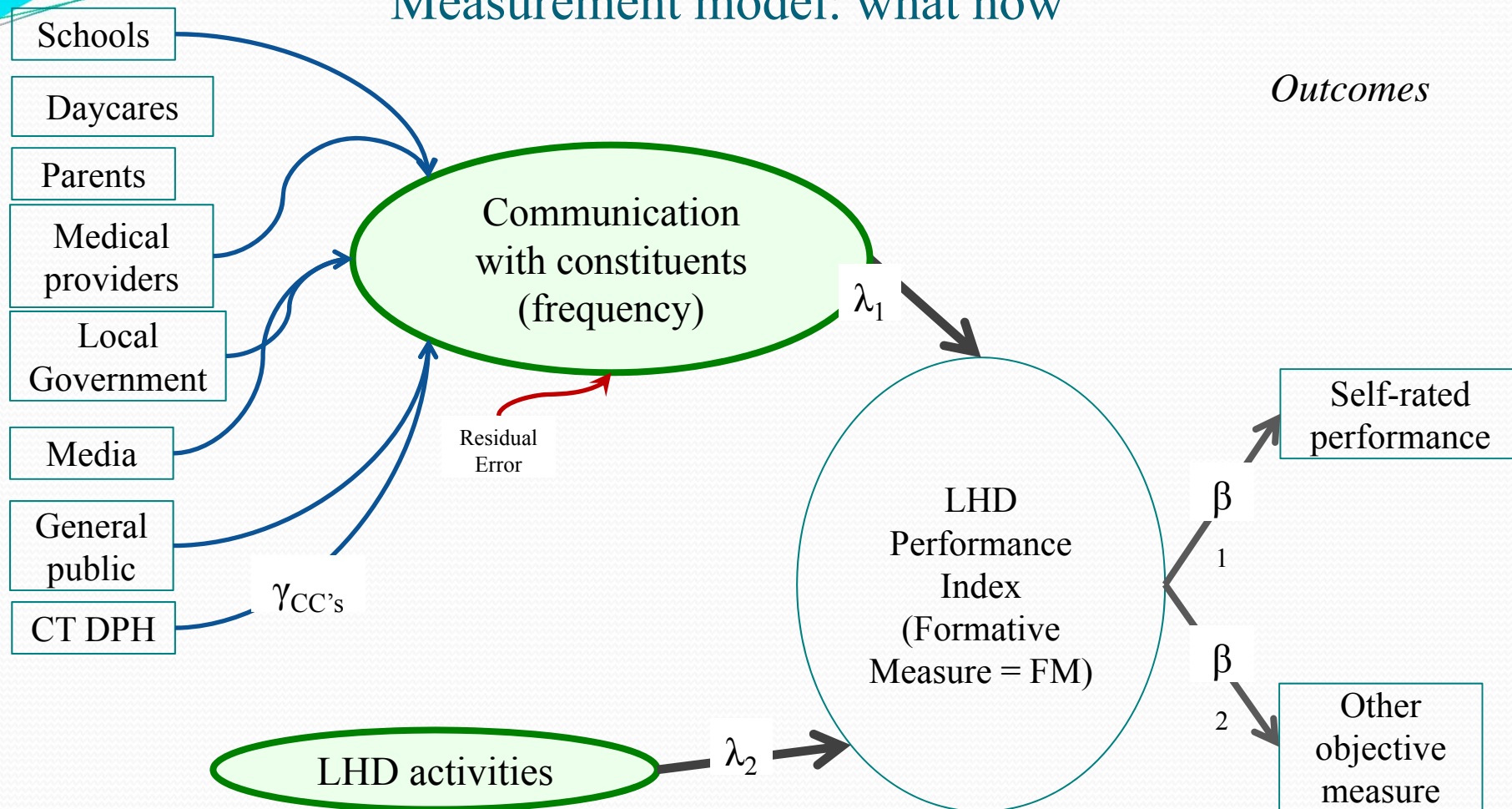


H1N1 performance

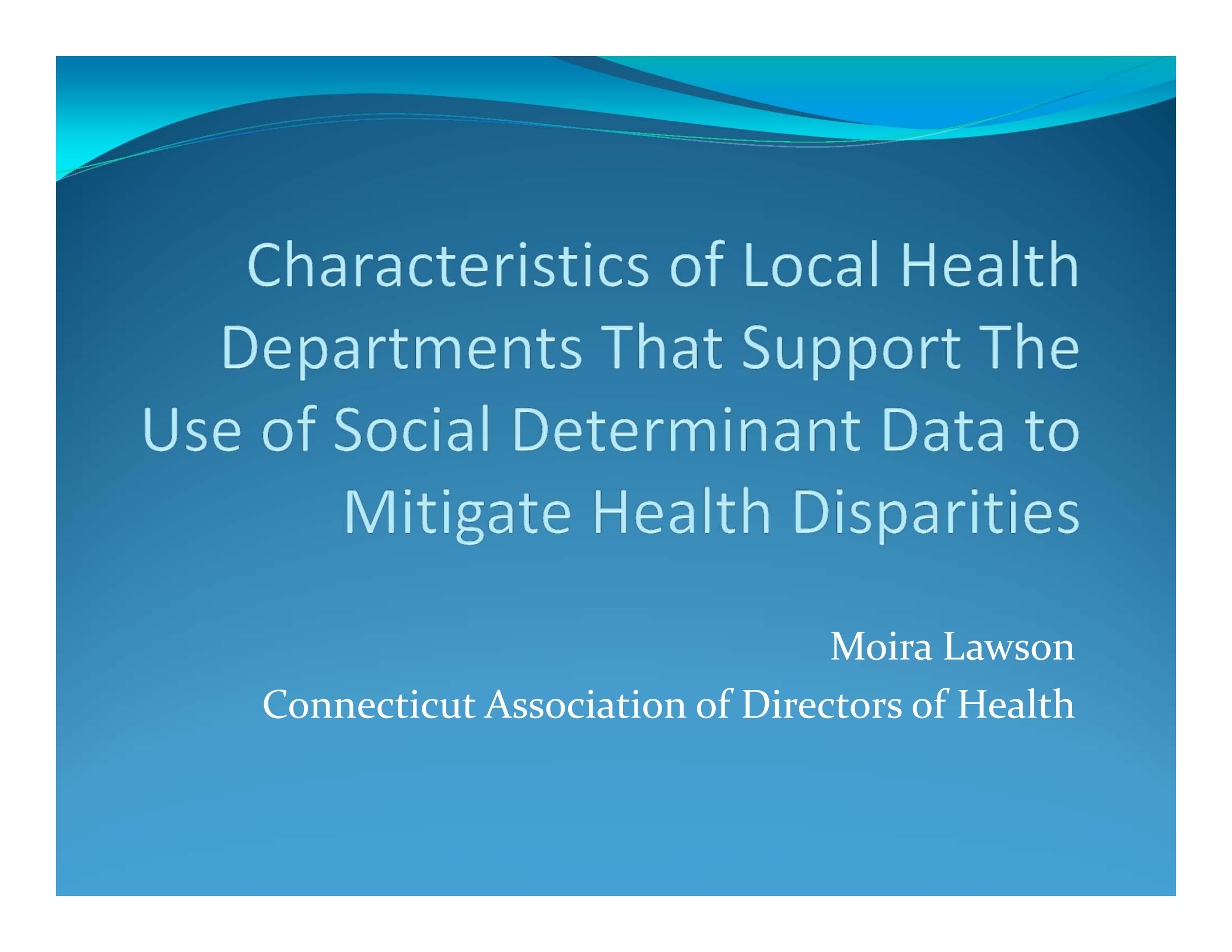
- One question – self-assessment



Measurement model: what now



γ_{CC} 's are expected to be significant (they are validity coefficients); formative indicators can be correlated (or not); λ 's are the loadings of the reflective multidimensional construct; β 's are convergent/discriminant validity coefficients.



Characteristics of Local Health Departments That Support The Use of Social Determinant Data to Mitigate Health Disparities

Moirra Lawson
Connecticut Association of Directors of Health



Project rationale

- LHDs need timely, reliable, and credible data.
- The Connecticut Association of Directors of Health developed a Health Equity Index to provide standardized local data to LHDs.
- We wish to examine characteristics associated with LHD use of local data to determine best practices.



Goals of the project

- Assess the utility of equipping LHDs with the Health Equity Index to further serve their populations.
- Determine the characteristics of a LHD which may influence usage of such a tool.
- Enhance the existing methodology of the Index to include temporal analysis and more selective stratification methods



What is the Health Equity Index?

The Health Equity Index is a web-based, community-specific data tool used to examine social, economic, political, and environmental conditions strongly associated with health status indicators.

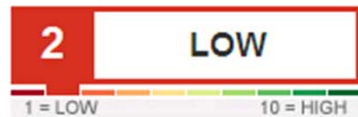
Comprised of 3 datasets:

- Social Determinants of Health
- Health Outcomes
- Demographics

Index Data

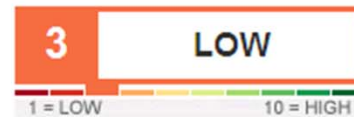
Hartford

Social Determinant Score



| Social Determinant | Score |
|-----------------------|-------|
| Civic Involvement | 1 |
| Community Safety | 1 |
| Economic Security | 2 |
| Education | 2 |
| Employment | 3 |
| Housing | 3 |
| Environmental Quality | 4 |

Health Outcome Score



| Health Outcome | Score |
|---------------------|-------|
| Childhood Illness | 1 |
| Liver Disease | 2 |
| Renal Disease | 2 |
| Mental Health | 2 |
| Health Care Access | 2 |
| Infectious Disease | 2 |
| Life Expectancy | 3 |
| Perinatal Care | 3 |
| Accidents/Violence | 3 |
| Diabetes | 3 |
| Cardiovascular | 3 |
| Respiratory Illness | 4 |
| Cancer | 5 |

Hartford Demographics

POPULATION

| | |
|------------------------|----------------|
| Total residents | 121,928 |
| Population density | 7,012.52/sq mi |

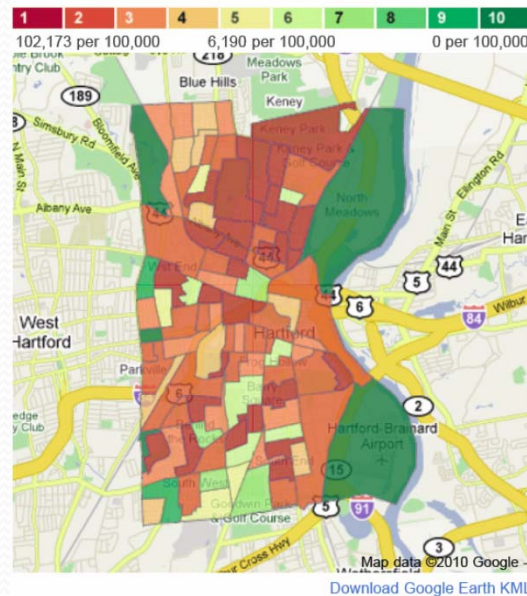
RACE/ETHNICITY

| | |
|-------------------------------------|--------|
| Hispanic or latino | 40.52% |
| Black or african american | 37.99% |
| White | 27.36% |
| Other | 26.63% |
| Multiracial | 6.00% |
| Asian | 1.60% |
| American indian or alaskan native | 0.38% |
| Native hawaiian or pacific islander | 0.04% |
| Diversity index | High |

HOUSEHOLD

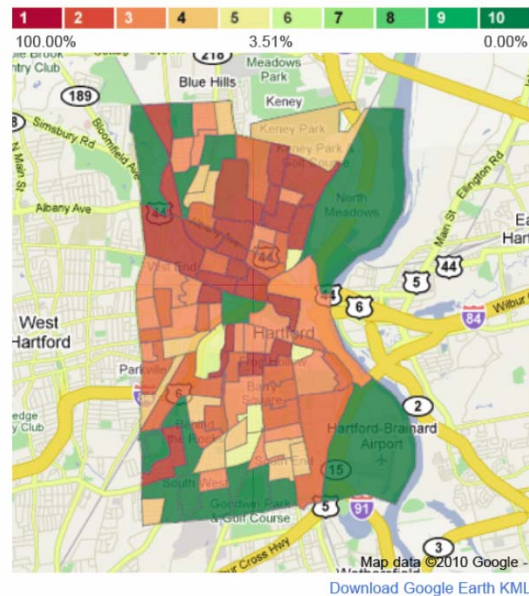
| | |
|---|--------|
| Female headed households with people under 18 | 24.62% |
| Households with people under 18 | 41.89% |

Data and Mapping at the Neighborhood Level



▢ Hartford: YPLL: all causes

Years Potential Life Lost (YPLL) calculates the relative impact that various diseases and lethal forces have on an area. It highlights the years of life lost to that area's population as a result of youthful or early deaths. The figure for potential years of life lost due to a particular cause is the sum, over all persons dying from that cause, of the years that these persons would have lived had they experienced normal life expectation. Those numbers are then normalized by dividing the YPLL score for a location by the population of that location.



▢ Hartford: Rental vacancy rates as a percentage of rental units

The rental vacancy rate measures the number of vacant units for rent in the neighborhood out of all renter-occupied units and vacant units that are for rent in the area.

Source 2000 Census Block Groups

Correlations between community conditions and health outcomes are calculated



LHD Characteristics

Characteristics of the Department or District

- Urban/Rural
- Governance
- Demographics of the community
- Demographics of the staff
- Funding

Characteristics of the Department or District Leadership

- Demographics
- Attitudes towards health equity and its role in public health



Data sources

- 2010 LHD annual report to DPH
- Health Equity Index analytics
- A 26 question survey sent to all local health directors



Usage analysis

- To what extent are they using the Index?
- Who is using the Index?
- For what purpose has Index data been used?



To Date:

- A survey has been sent to all LHD to obtain baseline information about health department characteristics.
- Members who have completed the survey receive access to the Index.
- 31 LHD directors have completed the survey.
- Data collection is ongoing.
- The addition of temporal analysis capability to the Index is in progress.

CT PBRN-Value Added

- Tremendous Opportunity to inform CT's public health system and service delivery
- Thoughtful identification and articulation of research questions
- Engagement of research partners to assist in research design, implementation and dissemination



Practical Implications

- Political influence of the health director (and structures that maximize political influence of the director) are related to higher local contributions
- Health directors have a range of options for changing the service mix and affecting their revenue streams, in order to maintain essential services.
- Legislative mandate for essential services (1983, updated in 1999) may be out of date.
- Review and revision of annual report could lead to more meaningful data for state and local use



Practical Implications

- Local health departments can alter their current decision-making processes in favor of a more evidence-based strategic planning process facilitated by the Health Equity Index.
- This use of timely local data about community conditions will result in a more effective and resource-efficient method of addressing health inequities