

New Hampshire Public Health Practice-Based Research Network- DACS 71155

- **Product Type:** Meeting and Conference Presentation
- **Presenter Name(s):** Lea Ayers LaFave
- **Presenter Affiliations:** NH PBRN or UNH/JSI
- **Title of Presentation:** Understanding Governmental and Non-Governmental Funding and Network Structure in Different Models of Public Health Infrastructure
- **Meeting:** Public Health PBRN DACS Methods Development Workshop
- **Sponsor Organization:** National Coordinating Center for PHSSR and PH PBRN
- **Date:** September 27, 2013
- **Location:** Lexington, Kentucky

Understanding Governmental and Non-Governmental Funding and Network Structures in Different Models of Public Health Infrastructure

New Hampshire PBRN

September 27, 2013



Partners

- NH Institute for Health Policy and Practice at UNH (PBRN)
 - Jo Porter, MPH
 - Stacey Gabriel, BA
- NH Division of Public Health Services
 - Jose Montero, MD, Director
 - Donna Fleming, MPH, Tobacco Prevention and Control Program
- Community Health Institute/JSI
 - Lea Ayers LaFave, RN, PHD
- Technical Assistance:
 - Patrick Bernet, PhD
 - Danielle Varda, PhD

Purpose of the study:

To better understand...

- funding sources and allocations for a key public health focus (tobacco prevention and cessation),
- how to collect data that can be used to do a similar financial assessment for other public health issues and services in the future.
- how funding and allocation for services relate to connectivity among partner members of local public health systems.

Existing NH Public Health Infrastructure

- Local Level
 - 234 cities and towns, Health Officer required by statute
 - 2 Comprehensive Municipal Health Departments
- Regional Level
 - 13 Regional Public Health Networks (RPHN)– evolving
 - Lead organization for each RPHN
 - No county health departments
 - Strong community-level informal public-private partnerships
- State level:
 - DHHS – Division of Public Health Services
- Foundational Work:
 - Regional Public Health Assessment (2009-2010): PH Capacity, Governance, Financial
 - Network Assessment (2013): Coordinated Chronic Disease Prevention

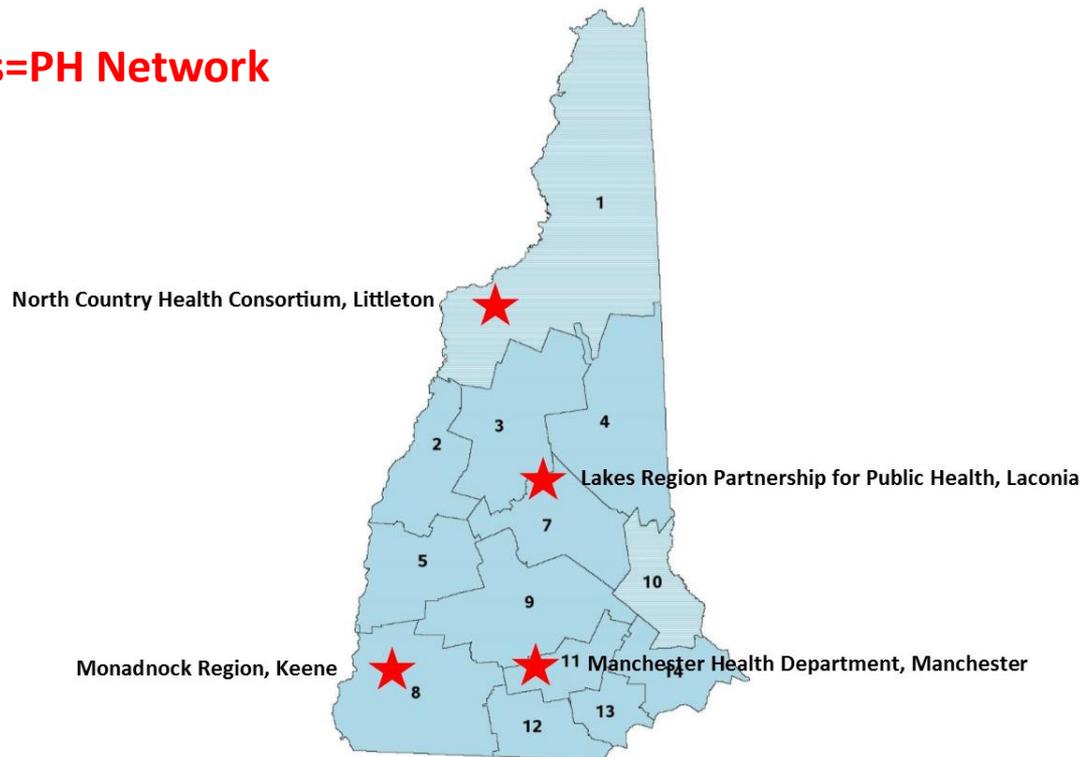
Figure 10. Source of non-municipal (total dollars).

| Service | Non-DPHS | | | | | Total | Service % of total |
|--|------------------|------------------|------------------|----------------|------------------|-------------------|--------------------|
| | Federal | Donations | Private | State | Other Funds | | |
| Direct Services | 6,346,542 | 2,017,242 | 1,450,706 | 123,439 | 1,416,560 | 11,354,489 | 58% |
| Emergency Preparedness | 5,000 | 0 | 55,420 | 1,060 | 19,152 | 80,632 | 0% |
| Injury Prevention | 0 | 1,990 | 101,341 | 249,503 | 10,862 | 363,696 | 2% |
| Tobacco Prevention | 63,000 | 0 | 315,062 | 0 | 39,999 | 418,061 | 2% |
| Substance Abuse Prevention | 424,260 | 7,745 | 63,097 | 200,122 | 104,717 | 799,941 | 4% |
| Preventing the Spread of Disease | 0 | 0 | 0 | 500 | 19,497 | 19,997 | 0% |
| Promoting Healthy Behaviors | 168,270 | 155,894 | 356,070 | 265,926 | 4,439,781 | 5,385,941 | 28% |
| Protecting Against Environmental Hazards | 60,133 | 0 | 10,000 | 0 | 0 | 70,133 | 0% |
| Salaries / Administrations | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Other | 200,063 | 192,599 | 413,531 | 135,022 | 55,847 | 997,062 | 5% |
| Total | 7,267,268 | 2,375,470 | 2,765,227 | 975,572 | 6,106,415 | 19,489,952 | |
| Source % of total | 37% | 12% | 14% | 5% | 31% | | |

NH Regional Public Health Networks and Cost Study Sites

New Hampshire Public Health Regions

Unit of Analysis=PH Network



Public Health Regions
1 = North Country 2 = Upper Valley 3 = Central NH 4 = Carroll County 5 = Greater Sullivan County 7 = Lakes Area
8 = Greater Monadnock 9 = Capital Area 10 = Strafford County 11 = Greater Manchester 12 = Greater Nashua 13 = Greater Derry 14 = Seacoast

Community Partners Working to Prevent Chronic Disease

| Lead Organization in Regional PH Network | N=Network Partners | Description |
|---|--------------------|--|
| Manchester Health Department | 16 | <ul style="list-style-type: none"> • 1 of 2 comprehensive municipal HDs in NH • Serves NH's most urban and diverse city |
| Lakes Region Partnership for Public Health | 18 | <ul style="list-style-type: none"> • Private not-for-profit organization, est. 2005 • Strong, community-based infrastructure • Works with many local organizations, including the regional hospital • Mission: Improve the health and well being of the Lakes Region through inter-organizational collaboration and community and public health improvement activities |
| North Country Health Consortium | 25 | <ul style="list-style-type: none"> • Serves NH's northern-most and most rural population • well-established consortium of partner organizations |
| Monadnock Region Cheshire Medical Center/Cheshire County Government | 9 | <ul style="list-style-type: none"> • Strong community-based infrastructure • Cheshire Medical Center- Dartmouth Hitchcock, Keene a key central partner • Engaged in a community change initiative designed to foster and sustain a positive culture of health throughout the 23 towns of Cheshire County. |

STUDY DESIGN

Financial Assessment

Qualitative Data Collection

- Range of services
- Range of funding sources
- Organizational Data

Financial Assessment Tool Refinement

Financial Data Collection



ANALYSIS

Correlation Studies:

- Types of funding and levels of collaboration
- Sources of funding and levels of collaboration
- Per capita spending and levels of collaboration

Multiple Regression:

Dependent Variable:

- Total dollars spent per person for tobacco prevention

Independent Variables:

- Lead organization in network
- Network size
- Collaboration among network partners
- Network Density
- Network Centrality
- Network Trust level

Collaboration Assessment

Data Collection

PARTNER Survey

Abstract Tobacco Prevention Services Data

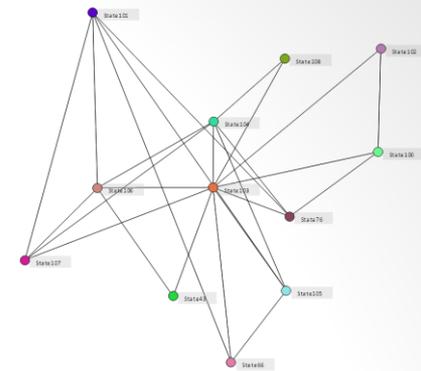
Network Scores:

- Collaboration Levels
- Density
- Centrality
- Trust

DATA COLLECTION

PARTNER

Program to Analyze, Record, and Track Networks to Enhance Relationships



- Web-based social network analysis tool* designed to measure and monitor collaboration among people/organizations.
- Designed for use by collaboratives/coalitions to demonstrate
 - how members are connected
 - how resources are leveraged and exchanged
 - the levels of trust
 - linkage of outcomes to the process of collaboration
- 274 Organizations surveyed – 64% response rate

* developed by Danielle Varda, PhD, U of Colorado with RWJF funding
www.partnertool.net

Preliminary Site Evaluation Questions:

1. How would you describe your organization's management/governance structure?

2. Please describe your funding sources for the organization, and how funds get distributed/allocated.

How would describe how your funding for tobacco prevention and cessation programs comes into the organization and is distributed?

3. Please describe (generally) the types of Public Health services you provide.

How do you allocate funding for the different services you provide?

How do you quantify/measure/track the services you offer and provide?

4. How do you staff for these services?

How do you quantify/measure/track staffing across your services?

5. Besides salary how do you allocate those costs across the services you provide?

6. How do you define the geographic areas you serve?

7. Please describe any major changes in your organization in the past 12 months.

MEASURES

| Tobacco 2014 | Shared Funding | Breadth | Efficiency | Spending and need | Network position - services | Network position - overhead |
|------------------|---|---|--|---|---|---|
| # services | NA | | - TBD (est ~ 5) - separate model each service | | | |
| Data collection | Primary- Questionnaire micro-level input measures | | | | Secondary- Social Network Analysis | |
| Sample size | ~ 20 funding sources | 4 Regions (~50 community partners) | | | | |
| Costs | Yes | Yes | Yes | Yes | NA | Yes |
| FTEs | NA | Yes | Yes | NA | NA | Yes |
| Service count | NA | Yes - if available | Yes - if available | NA | NA | NA |
| Outcomes | NA | NA | Yes-as confounding factor | | NA | NA |
| Data preparation | Estimate % participants supported | Estimate efficiency | Estimate cost | Compute | Disaggregate Tobacco Data from Network Analysis Data Set | |
| | -# participants get support from funder -by service, by funder | -# of units output (service or patients) -# of spending or staff | -Staff salary costs (FTEs) -supplies -other expenses | Town-service total spending (from all sources) | Collaboration Levels Network Scores: Trust, Centrality, Density | |
| Model | Means comparison | Correlation | Cost per unit | Spending | Specific service provision | Overhead cost % |
| | -% participants supported by funder | -breadth of funding sources -breadth of service provided | Lead organization characteristics -Demographics -Portion of funds from local sources | Lead organization characteristics -Demographics -Outcomes | Lead organization characteristics Network position | |
| Summary | Are some funders involved with more LHDs than others? | Do participants receiving funding from a broad range of sources also provide a broad range of services? | Is the proportion of funds drawn from local sources associated with higher efficiency in the delivery of | Is (spending by all participants) associated with tobacco-related outcomes? | Are certain types of network positions more associated with the provider of certain services? | Are overhead expenses associated with network position? |

Lexington, KY 9/7/13

| Level Of Analysis | Measure | Operational Definition |
|--------------------------|------------------------------|---|
| Network | Density | # of ties/concentration of ties |
| | Degree Centralization | # of connections to other members of the network-the extent to which a network is dominated by one or a few central hubs |
| | Trust | Reliability In support of network purpose Open to discussion |
| Organization | Connectivity | Degree Centrality Non-Redundant ties Closeness Centrality Relative Connectivity |
| | Value | Power/Influence Level of Involvement Resource Contribution |
| | Trust | Reliability In support of project Open to Discussion |
| Project | Outcome | Outcomes Achieved Most Successful Outcomes Success at Reaching Goals Aspects Contributing to Success |

Continuum of Collaboration

Cooperative:

- Exchange info, attend meetings together, offer resources to partners

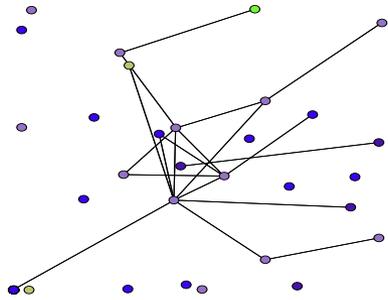
Coordinated:

- Cooperative + intentional efforts to enhance each other's capacity for the mutual benefit of programs

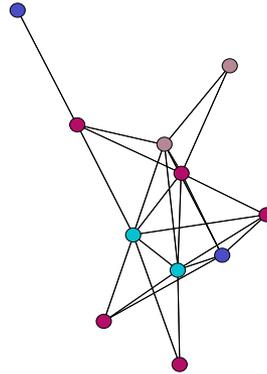
Integrated:

- Cooperative + Coordinated + Use commonalities to create a unified center of knowledge and programming that supports work in related content areas

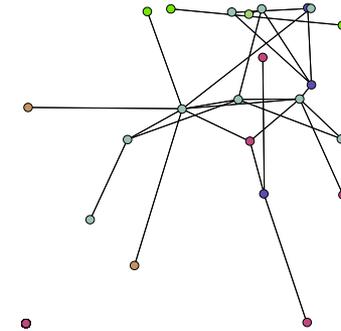
Regional Tobacco Partners



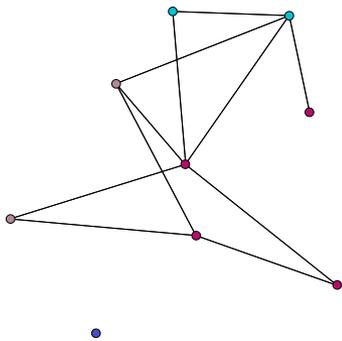
North Country



Lakes Region



Manchester



Monadnock

| | Density | Centrality | Trust |
|-----------------------------|---------|------------|-------|
| North Country (n=25) | 3% | 23% | 70% |
| Laconia (n=18) | 4% | 26% | 57% |
| Manchester (n=16) | 23% | 51% | 67% |
| Monadnock (n=9) | 44% | 71% | 82% |

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Thank you!