Local Variation in Primary Care-Public Health Integration: A Practice-Based Research Approach

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Abstract Text:

Research Objective: Few published studies have examined the degree of primary care (PC) and public health (PH) integration from both perspectives nor the potential linkages between local integration, service delivery, and health outcomes. To advance the field, this study focused on three essential questions: What are the key factors for integration? How can we best characterize local jurisdictions in terms of their degree of integration? How does the degree of integration vary?

Study Design: Qualitative key informant interviews and a 38-item, quantitative, online survey, were conducted to measure collaboration factors from both the PC and PH perspectives at the local level. The relative contributions of selected survey questions were used to calculate collaboration scores for each local jurisdiction. Those scores were then used to classify each jurisdiction within a multi-dimensional model of integration. Descriptive statistics were generated for all survey variables. Regression models were used to examine the potential association between placement in the integration framework and selected health indicators, including childhood immunization rates, self-reported youth and adult smoking rates, and self-reported youth and adult physical activity rates.

Population Studied: PH and PC leaders were identified for all 241 local health jurisdictions in four states: Minnesota, Colorado, Washington and Wisconsin. Forty paired key informant telephone interviews (representing ten matched leaders from five different jurisdictions in each state) were conducted using a standard protocol. Eighty percent of all local health directors across participating states completed the on-line survey (n=193). A parallel survey was administered to one or more PC leaders in all jurisdictions. The 31% primary care response rate (n=128) represents 50% of jurisdictions studied.

Principal Findings: Several key factors emerged as being necessary for successful collaboration. These factors sorted into Foundational and Energizing characteristics. Both PC and PH respondents generally agreed that foundational characteristics – such as mutual trust and respect, shared mission/vision, and basic communication -- were present in the current cross-sector working relationships. Respondents were less likely to agree that current relationships feature factors that promote sustainability (e.g., financial and staffing capability), clearly defined roles/responsibilities, or innovation. Overall, PH respondents were more likely to report the two highest levels of working together (e.g., 41% vs 26%). In general, PH respondents were slightly more satisfied with the working relationship (59% vs. 56%) and tended to report more ways in which they work with PC.

Conclusions: Leaders in both sectors value working together in principle, yet in practice, many report barriers and uncertainty about how to strengthen the foundation of the relationship, or to energize and sustain mutually beneficial relationships. Identifying shared priorities and achieving tangible benefits from working together – at the personal, organizational or population level -- may be especially critical to realize a long-term, sustained working relationships that result in measurable population health improvement.

Implications for Public Health Policy or Practice: Conceptualizing local PH and PC integration within a multi-dimensional framework provides key opportunities to target recommendations and action steps.

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Research Objectives

Few published studies have examined the degree of primary care (PC) and public health (PH) integration from both perspectives nor the potential linkages between local integration, service delivery, and health outcomes. To advance the field, this study focused on three essential questions: What are the key factors for integration? How can we best characterize local jurisdictions in terms of their degree of integration? How does the degree of integration vary?

Background

The Institute of Medicine (IOM) makes a compelling case that increased integration of primary care and public health is crucial to population health[1], and the Affordable Care Act provides new incentives and expectations for such integration. Yet currently there is no consensus on terminology, definitions, or measures of integration between these two largely separate systems of care. To that end, researchers housed in primary care and public health practice-based research networks (PBRNs) from Colorado, Minnesota, Washington and Wisconsin have come together to develop measures and use them to identify differences in integration at the local jurisdiction level; identify factors that facilitate or inhibit integration; and examine the relationship between extent of integration and services and selected health outcomes.

Study Team

This study is being coordinated in MN, with partners in CO, WA and WI. Partners are engaging their primary care and public health PBRNs at each stage of study design, implementation, dissemination and translation.

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Study Design

Qualitative key informant interviews (n=40) and a 38-item, quantitative, online survey, were conducted to measure collaboration factors from both the PC and PH perspectives at the local level. The relative contributions of selected survey questions were used to calculate collaboration scores for each local jurisdiction. Those scores were then used to classify each jurisdiction within a multi-dimensional model of integration. Descriptive statistics were generated for all survey variables. Regression models were used to examine the potential association between placement in the integration framework and selected health indicators, including childhood immunization rates, self-reported adult smoking rates, and self-reported adult physical activity rates.

Quantitative Response Profile:

PH Respondents: n=193 (80% response rate)
PC Respondents: n=128 (31% overall response rate, 50% jurisdiction-specific) **PC oversampled in jurisdictions to increase response rate
PC-PH Dyads: n=71 (29% of possible jurisdictions)

Jurisdictional Characteristics

	All Jurisdictions (n=241)	PH Only (n=193)	PC Only (n=128)	PC-PH Dyads (n=71)
Population Size				
Less than 50,000	64.2%	64.8%	44.0%	47.9%
50,000-100,000	16.5%	16.1%	12.8%	14.1%
Greater than 100,000	19.3%	19.1%	43.2%	38.0%
% Poverty				
Less than 10.9%	35.4%	33.2%	28.9%	36.6%
11-14.9%	38.3%	38.3%	39.1%	28.2%
15% or higher	26.3%	28.5%	32.0%	35.2%
% Non-White				
Less than 5%	39.9%	39.9%	35.2%	28.2%
5.1-8.9%	31.3%	31.1%	24.2%	40.9%
9.0% or higher	28.8%	29.0%	40.6%	31.9%

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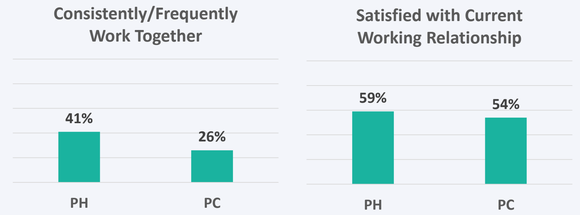
Principal Findings

The data showed a wide range of variation in levels of integration. The typical "one PH to many PC" relationship appears especially complex in areas with larger populations. An interesting dichotomy is that while neither PC nor PH self-report high levels of working together, both seem relatively satisfied with their working relationship.



Key features of integration appear to exist in multiple dimensions: foundational characteristics and energizing characteristics.

Foundational characteristics are key factors necessary to build an ongoing relationship. Examples include aligned leadership, a shared vision, mutual trust and respect, and basic communication. ***Energizing characteristics*** are more dynamic and action-oriented, including factors such as coming together on specific projects, being able to share data, having dedicated resources and confidence in sustainability.

Energizing Characteristics	Foundational Characteristics: Weaker	Foundational Characteristics: Stronger
Stronger	**10%** • Come together for specific clients or projects, or to address a crisis • MOUs, contracts, and other formal structures • Leadership directs work • Lack shared vision, mutual trust, respect, and value	**37%** • Work together is ongoing • Shared vision, mutual trust, respect, and value • Formal structures in place • Shared data and information • Adequate staffing or financial commitment
Weaker	**42%** • Rarely come together around projects or clients • Inadequate staffing or financial commitment • Few formal structures support working together • Lack shared vision, mutual trust, respect, and value	**11%** • Shared vision, mutual trust, respect, and value • Supportive leadership • Few formal structures in place • Inadequate staffing or financial commitment

Preliminary analysis of quadrant placement and health outcomes, including childhood immunization coverage rates, adult smoking rates, adult obesity rates and rates of physical inactivity, were not statistically significant in logistic regression models. Additional analysis will focus on more in-depth exploration of whether an association exists after modeling variables differently and controlling more fully for jurisdictional characteristics that might influence health outcomes.

Conclusions

- Leaders in both sectors value working together in principle, yet in practice, many report barriers and uncertainty about how to strengthen the foundation of the relationship, or to energize and sustain mutually beneficial relationships.
- Identifying shared priorities and achieving tangible benefits from working together – at the personal, organizational or population level -- may be especially critical to realize a long-term, sustained working relationships that result in measurable population health improvement.
- Viewing integration as a linear process is not sufficient to describe the broad variation in collaborations.

Relevance to Policy & Practice

Conceptualizing local PH and PC integration within a multi-dimensional framework provides key opportunities to target recommendations and action steps and help identify potential areas for growth.

References

1. Institute of Medicine (IOM) (2012). *Primary Care and Public Health: Exploring Integration to Improve Population Health*. Washington, DC: The National Academies Press

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