



Effects of an integrated service delivery approach on health care utilization: background & preliminary

a Robert Wood Johnson Foundation Collaborative Research Center project

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Disclosures

I have no relevant relationships to disclose.



IU Collaborating Research Center Partners

- Indiana University Richard M. Fairbanks School of Public Health
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- Regenstrief Institute
- Marion County Public Health Department
- Indiana University Polis Center

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Research Team

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- ...and many others...



Overall objective

Support the collaboration and partnership of the health care, public health, and social services systems in addressing social determinants of health.

Focus area: the delivery of integrated care services in an urban safety-net population.

Study 1

Impact of
integrating
social
determinant
services

Study 2

Social
determinants
of health
decision
support

Study 3

Integration of
public health
into case
conferencing

Focus of this presentation



Increasingly, patients require services and expertise that go beyond the tradition scope of health care services.

- Increased emphasis on the social determinants of health
- Increased organizational accountability for health and prevention
- Insufficient time in a single clinical visit to address social, behavioral, environmental, and contextual factors

Examples of social determinant of health services integrated into primary care

- behavioral health
- social work
- dental
- dietetics
- respiratory therapy (includes asthma education)
- financial counseling
- patient navigation
- pharmacy assistance

Measuring the association of between patient receipt of social determinant of health services and avoidable utilization

Setting - Eskenazi Health

- Public hospital system serving the Indianapolis, IN area
- 315 bed hospital
- Federally qualified health center (FQHC) operating 10 sites

Subjects

- 9 year propensity score matched panel
- Adults
- >1 primary care visit before 1/2011 and >1 primary care visit after 1/2011 (Eskenazi increased offerings of services in 2011)

Data

Indiana Network for Patient Care

- Largest & oldest health information exchange in the nation
- Data from >100 health systems, hospitals, & outpatient providers
- Encounters, demographics, etc.

Social determinant of health services

- Eskenazi Health billing & registration systems
- Orders from the G3 electronic health record system
- NLP of outpatient clinical documents (e.g. visit notes)

Approach: a difference-in-difference like approach in propensity-score matched panel

Matched sample

- Logistic regression model estimating the probability of receiving social determinant of health services
- Including: patient demographic characteristics, diagnoses, and prior utilization
- 3 matched controls

Outcomes

- Readmissions (30 day)
- Ambulatory care sensitive admissions
- Avoidable emergency department encounters

About our sample (as of making this slide)

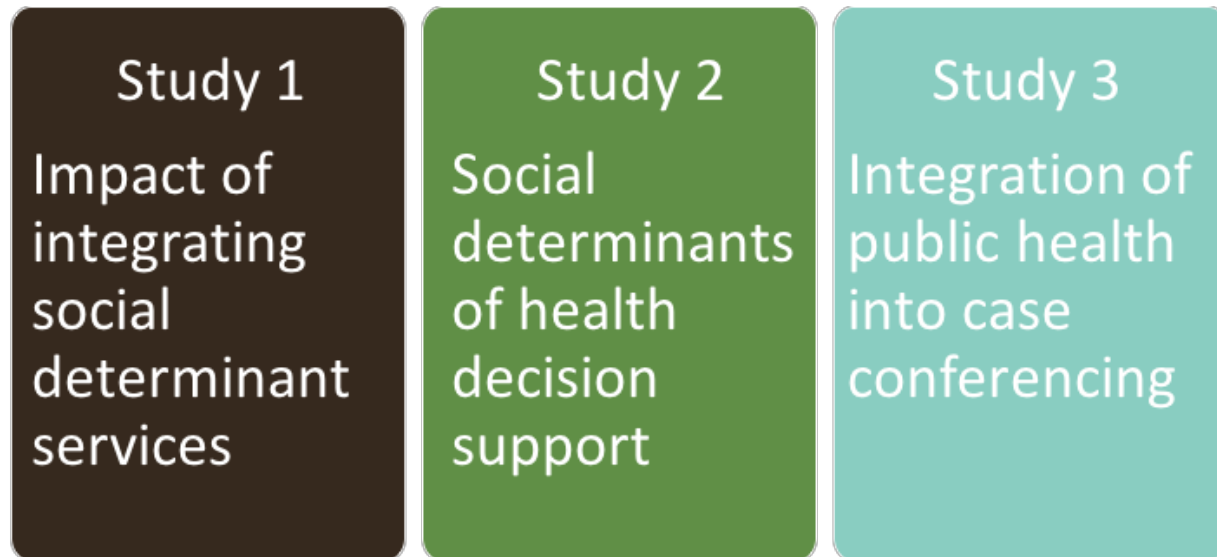
- 50,116 individual patients
- 44,078 identified social service encounters (and counting)
 - Navigation ~ 8%
 - Dental ~ 17%
 - Dietician ~ 50%
 - Behavioral health ~ 15%
 - Respiratory therapy ~ 2%

Lessons

- Identifying service delivery data is challenging (especially over time)
 - Multiple systems within a single organization (10 systems)
 - Diverse practices across services, locations, and providers (e.g. actual order, documented in notes, billed...)
- Conceptual issues & labels
 - “integrated services” vs. “co-located services” vs. “wraparound services”

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