Connecticut Health FOUNDATION

Changing Systems, Improving Lives.

POLICY *Brief*

APRIL 2017

Community Health Workers: A Positive Return on Investment for Connecticut

HIGHLIGHTS

- **Community health workers promote health and wellness within their own communities, helping to bridge the gap between the doctor's office and patients' lives.**
- **Community health worker services improve health outcomes, help providers and payers meet new quality standards, and save money. Research on successful models in other states demonstrates that they can be sustainable and tailored to local needs.**
- **The University of Massachusetts Medical School's Center for Health Law and Economics has modeled four targeted interventions for Connecticut that would improve health and save money. The models focus on Latinos with diabetes in Hartford, children with asthma in Greater New Haven, frequent emergency department users in New London County, and patients with cardiovascular disease risk factors in Windham County.**

WHY INVEST IN COMMUNITY HEALTH WORKER SERVICES?

Research demonstrates that community health workers (CHW) enhance patient experience, strengthen care coordination, improve clinical outcomes, and can help to control health care costs.

They bring an understanding of patients' culture, language, and community to the health care team. They can be the team's eyes and ears on the ground, identifying obstacles patients face and tailoring health management strategies to meet each patient's needs.

The health care system's movement toward value-based payment methods – which reward quality health care with incentive payments – encourages providers and payers to meet ambitious quality standards for all patients, including those who face significant barriers to achieving better health.

CHWs enhance the patient experience, improve clinical outcomes and contain health care costs.

SUCCESSFUL CHW PROGRAMS IN THE U.S.

MOLINA HEALTHCARE OF NEW MEXICO, a Medicaid managed care organization, partnered with Community Access to Resources & Education in New Mexico (CARE NM) to employ CHWs to help patients with complex and unmet health needs navigate the health care system.[3,4]

- Molina pays providers a monthly per-patient fee for CHW services
- Molina reported a $4 return on every $1 invested in CHW services
- Molina is expanding this model to the nine other states within its network

NEW YORK-PRESBYTERIAN HOSPITAL IN NEW YORK CITY integrated CHWs as team members in five medical homes through the Washington Heights/Inwood Network For Asthma (WIN) program.[5,6]

- An initial grant-funded program generated cost savings from reduced health care utilization over 5 years
- Hospital leadership then agreed to support WIN through the hospital's operating budget and later expanded the program

UNIVERSITY OF PENNSYLVANIA HEALTH SYSTEM uses CHWs to improve primary care utilization and patient engagement, while reducing hospital readmission rates.[7,8]

- CHWs are now fully integrated into routine care throughout the health system
- The health system employs 40 CHWs to provide health care system navigation, social support and advocacy for more than 1,500 high-risk patients each year

HENNEPIN HEALTH IN MINNESOTA, a safety net system, uses CHWs at patient-centered medical homes to help patients with high needs navigate the health care system.[9,10]

- CHW services are covered through per-member per-month and fee-for-service payment arrangements
- Hennepin Health expanded the role of CHWs by reinvesting savings generated by accountable care organizations

To date, some policymakers, health systems, insurers and community organizations have been hesitant to invest in CHW services because of uncertainties about the return on investment and the challenges inherent in translating research into real-world practice.

In fact, research provides a strong business case for the use of community health workers. A review by the University of Massachusetts (UMass) Medical School's Center for Health Law and Economics demonstrates the value of CHW services, and provides four practical, ready-to-use, sustainable financing models anchored in Connecticut data.

WHAT THE RESEARCH SHOWS

Studies show that community health workers help underserved and high-need patients access the right care at the right time by removing barriers to care. These services enhance patient experience, improve population health outcomes, and reduce costs.[2]

WHAT CONNECTICUT COULD DO

Researchers at UMass developed four CHW models aligned with priorities of Connecticut's State Innovation Model, a federally funded grant initiative to transform state health care systems. The models target high-need, high-cost patients – the populations for which CHW interventions are most likely to improve health outcomes and generate cost savings. The analysis applies results obtained by successful interventions in other parts of the country and projects outcomes that could be achieved if the same interventions were implemented in Connecticut.

Evidence compiled from research studies, interviews with Connecticut CHW employers, and state public health data were used to construct cost-effective CHW models. Specific state population and cost data were used to create the most cost-effective model for each community.

While the four models are based on actual state data, they are projections based on programs that could be implemented, not evaluations of programs that currently exist.

POTENTIAL CHW PROGRAMS FOR CT

CHW MODEL 1

CONTROLLING DIABETES AMONG HARTFORD LATINOS

Target population: 158 Latinos (mostly Puerto Rican) with type II diabetes, per 18 month cohort

CHW employer: Community-based organization

Model: University of Texas Community Outreach, Laredo, Texas,[11] an 18-month intervention that included home visits, counseling, group education, exercise classes

Projected intervention cost: $388,000 over 3 years

Projected outcomes:
- 60 percent would achieve good glycemic control
- 74 percent would improve overall glycemic control
- Savings in direct medical costs: $435,000 over 3 years
- Financial return on investment: $1.12 for every $1 invested over 3 years
- Social return: 14 recovered work days per working adult over 18 months

CHW MODEL 2

IMPROVING ASTHMA CONTROL OF CHILDREN IN GREATER NEW HAVEN

Target population: 96 children with uncontrolled asthma per year

CHW employer: Private group practice using a patient-centered medical home model

Model: Seattle-King County Medicaid Healthy Homes, Washington,[12] a 4-month intervention that included home visits, an environmental assessment and asthma mitigation supplies

Projected intervention cost: $229,000 over 3 years

Projected outcomes:
- 27 more children would have well-controlled asthma in year 1
- 32 percent fewer hospitalizations than if no intervention
- Savings in direct medical costs: $427,000 over 3 years
- Financial ROI: $1.86 for every $1 invested over 3 years
- Social return: For each family, 8 recovered school days & 12 fewer days caretakers have to rearrange schedules due to child's asthma symptoms per year

CHW MODEL 3

CONNECTING INDIVIDUALS WITH COMPLEX HEALTH NEEDS TO APPROPRIATE HEALTH CARE SERVICES IN NEW LONDON COUNTY

Target population: 72 adults with chronic conditions and behavioral health needs with multiple emergency department visits, per year

CHW employer: Hospital system in partnership with affiliated practitioners and clinics

Model: Molina Healthcare/CARE NM, New Mexico,[13] a 1-6 month intervention to connect patients to primary care providers and reduce emergency department visits

Projected intervention cost: $394,000 over 3 years

Projected outcomes:
- 81 percent reduction in hospitalizations
- 69 percent reduction in emergency department visits
- Savings in direct medical costs: $944,000 over 3 years
- Financial ROI: $2.40 for every $1 invested over 3 years
- Social return: Not modeled

CHW MODEL 4

PREVENTING CARDIOVASCULAR DISEASE COMPLICATIONS IN WINDHAM COUNTY

Target population: 148 adults in Windham County with cardiovascular risk factors including diabetes, hypertension or high cholesterol, per year

CHW employer: Federally qualified health center

Model: Community Outreach and Cardiovascular Health in Baltimore,[14] a year-long nurse-led intervention that included diet modification, stress management, smoking cessation, exercise and medication management

Projected intervention cost: $194,000 over 3 years

Projected outcomes:
- 230 percent more individuals with controlled blood pressure and 170 percent more individuals with controlled cholesterol levels than if no intervention
- Savings in direct medical costs: $388,000 over 3 years
- Financial ROI: $2 for every $1 invested over 3 years
- Social return: For each working adult with diabetes, 2 recovered workdays per year

The full report, which is available at www.cthealth.org, provides the detailed budget, financial, and clinical impact analyses that health care providers, payers and community-based organizations need to justify funding CHW services.

REFERENCES

1 Kim, K.; et. al. (2016). Effects of Community-Based Health Worker Interventions to Improve Chronic Disease Management and Care Among Vulnerable Populations: A Systematic Review. American Journal of Public Health: April 2016, Vol. 106, No. 4, pp. e3-e28.

2 California Health Workforce Alliance. (2013). Community Health Workers, Promotores and the Triple Aim: Taking Innovation to Scale. Available at: http://www.blueshieldcafoundation.org/sites/default/files/publications/downloadable/Taking_Innovation_to_Scale_CHWA_Report_Dec_2013.pdf. [Accessed Feb. 14, 2017]

3 UNM Health Sciences Center (2017) Community Health Worker Initiatives - CARE NM. Available at: http://hsc.unm.edu/community/chwi/care-nm.html [Accessed March 6, 2017]

4 Grovet D. Molina Healthcare: Leveraging Managed Care to Support Community Health Workers. Presentation at the Association of State and Territorial Health Officials (ASTHO), Sept. 9, 2015. Available at: http://www.astho.org/Primary-Care/Community-Health-Workers/TFAH-ASTHO-Webinar-Slides/ [Accessed March, 6, 2017]

5 Peretz PJ, Matiz LA, Findley S, Lizardo M, Evans D, McCord M. Community health workers as drivers of a successful community-based disease management initiative. Am J Public Health. 2012 Aug; 102(8):1443-6.

6 Nadia I, Smiti N, Patricia P, et al. Integration of Community Health Workers into Primary Care Health Systems: The Time for New York is Now! NYU-CUNY Prevention Research Center. October 2016. New York, NY. Available at: http://www.med.nyu.edu/prevention-research/sites/default/files/prevention-research2/NYU-CUNY%20PRC%20-%20Integration%20of%20CHWs%20into%20Primary%20Care%20Systems.pdf [Accessed March 1, 2017]

7 Penn Center for Community Health Workers. Approach. Available at: http://chw.upenn.edu/approach [Accessed March 1, 2017]

8 Network for Excellence in Health Innovation (2015) Community Health Workers: Getting the Job Done in Healthcare Delivery. Issue Brief, Spring 2015. Available at: http://www.nehi.net/publications/63-community-health-workers-getting-the-job-done-in-healthcare-delivery/view [Accessed March 1, 2017]

9 Ibid

10 Nadia I, Smiti N, Patricia P, et al.

11 Brown, H. S., Wilson, K. J., Pagán, J. A., Arcari, C. M., Martinez, M., Smith, K., & Reininger, B. (2012). Cost-Effectiveness Analysis of a Community Health Worker Intervention for Low-Income Hispanic Adults with Diabetes. Preventing Chronic Disease Prev. Chronic Dis., 9,120074.

12 Campbell, J. D., et al. (2015). Community Health Worker Home Visits for Medicaid-Enrolled Children with Asthma: Effects on Asthma Outcomes and Costs. Am J Public Health, 105(11), 2366-2372.

13 Johnson, D., Saavedra, P., Sun, E., Stageman, A., Grovet, D., Alfero, C. , Kaufman, A. (2011). Community Health Workers and Medicaid Managed Care in New Mexico. J Community Health, 37(3), 563-571.

14 Allen JK. Community Outreach and Cardiovascular Health (COACH) Trial: A Randomized Controlled tTrial of Nurse Practitioner/Community Health Worker Cardiovascular Disease Risk Reduction in Urban Community Health Centers. Circ Cardiovascr Qual Outcomes. 2011;4(6): 595–602.

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