

worker education & resource center, Inc. CHW Best Practices and Cost Effectiveness Information: Safety Net Systems and Medicaid

Initiative	Overview	Participant Criteria	Evaluation Results
	LACDHS In	itiatives	
Harbor-UCLA Medical Center, Department of Family Medicine ⁱ Harbor City, CA • Lomita Family Clinic	Implemented grant-funded CHW program combining nutrition education with behavior-change goal setting to address high rates of obesity/diabetes and broader social determinants of health. CHWs provided health education at clinic, schools, and housing project sites; coordinated patient visits; assisted with physician instructions; helped physicians understand patient population; and engaged in practice improvement with the medical team.	No information	One of 15 best practice case studies on building primary care teams featured in a 2007 California HealthCare Foundation report by UCSF's Dr. Tom Bodenheimer
National Institute of Neurological Disorders and Stroke Grant Stroke Medical Home - SUCCEED ⁱⁱ Los Angeles County, CA • Four LACDHS Hospitals • UCLA Dept. of Neurology • WERC • Esperanza Community Health Corp	Implements an outpatient clinic with a specialized care team using CHWs trained by WERC to improve control of risk factors among stroke patients discharged from LACDHS hospitals. CHWs conduct home visits with stroke patients using mobile technology; coach on self-management skills; serve as a liaison between patient and care team; assess for social isolation and depression, and mobilize resources. Funding awarded in Fall 2012.	 Patients who: Speak English, Spanish, Korean, Mandarin, or Cantonese Have suffered a recent stroke or transient ischemic attack 	 Pending. Some evaluation measures include: Reducing systolic blood pressure Controlling other stroke risk factors and improving lifestyle habits Cost analysis of the medical home team and other study components
LACDHS CMS Strong Start Grant MAMA's Neighborhood ⁱⁱⁱ South/Central Los Angeles, CA LACDHS Women's Health California Maternity Quality Care Collaborative L.A. Best Babies Network RAND Corporation	Implements a Maternity-Centered Medical Home at four LACDHS facilities that provides enhanced prenatal care services provided by a care team with a CHW (Comprehensive Perinatal Health Worker through the CPSP program). Services offered include case management for high-risk women focused on substance use, social stability, depression, intimate partner violence, and biomedical risk; and continuous quality improvement processes. Funding awarded in April 2013.	No information	Pending
Patient-Centered Outcomes Research Institute (PCORI) Grant USC School of Social Work A Helping Hand (AHH) ^{iv} Los Angeles/El Monte, CA • Hudson, Roybal, and El Monte Comprehensive Health Centers • Vision y Compromiso	Randomized comparative effectiveness study at three LACDHS facilities that uses a CHW providing phone support to activate patient-centered depression self-care training and practical assistance intended to improve and personalize major depression self-care; activate patient- provider communication, clinic appointment keeping and treatment coordination; and facilitate patient navigation and receipt of needed community resources. Funding awarded in November 2013.	 Will recruit 350 patients with: Major depression and A concurrent chronic illness (i.e., diabetes, heart failure, coronary heart disease) 	 Study objectives include: Whether CHW care management training improves patient-centered outcomes (i.e., self-care, treatment adherence, symptom improvement, and care satisfaction) Depression symptom improvement Hospitalizations and ER visit frequency
 National Health Care Homeless Council CMMI Innovation Grant^v Los Angeles County, CA Northeast Valley Health Corp / Olive View-UCLA Med Center JWCH Institute / LAC+USC Med Center 	Employs CHWs to target homeless patients frequently using the ED and other hospital settings, regardless of insurance status, and transition them to FQHC Health Care for Homeless primary care sites. The Council provides a 16- module training curriculum as an interactive webinar to the 10 participating sites. Funding awarded in June 2012.	 Each FQHC Health Care for the Homeless primary care clinic in L.A. will serve 25 patients who are: Homeless Frequent users of ED (4+ visits in the past year) 	Pending



CHW Best Practices and Cost Effectiveness Information: Safety Net Systems and Medicaid

Initiative	Overview	Participant Criteria	Evaluation Results
	Current/Pas	t Programs	
 Health Care Safety Net Project Dulce^{vi} San Diego County, CA County of San Diego Community Clinics Health Network San Diego State University Scripps Whittier Diabetes Institute 	Provides CHW services to patients with diabetes that incorporates elements of the Chronic Care Model in its design to improve care delivery since 1997. The care team includes CHW peer health educators providing self- management education; nurses, pharmacists, and social workers using algorithms to provide care management; and medical assistants as health coaches. CHWs selected from patient population and receive a 40-hour competency-based curriculum. Nurse supervisors of CHWs also receive training.	 Serves a predominantly Latino adult population with diabetes Uses a patient registry to identify and stratify diabetic patients 	 Have been several studies documenting the effectiveness of clinical, behavioral, and economic outcomes. A randomized trial of only CHW peer education demonstrated: Greater improvements across time in A1C and diastolic blood pressure in intervention group vs. usual care group Significant improvements in A1C and secondary indicators (total cholesterol, HDL and LDL cholesterol) in the intervention group
Medi-Cal Managed Care Plan Health Navigator Program ^{vii} San Bernardino / Riverside Counties, CA Inland Empire Health Plan First 5 San Bernardino	Targets children ages 0-5 and their parents using CHWs to decrease unnecessary ED utilization; increase linkages to PCP, health plan resources, and community resources; and increase well child and immunization compliance. CHWs receive in-house training on key managed care concepts and external training from Latino Health Access.	 Children ages 0-5 in the home Frequent users of ED (multiple visits) Members missing preventive services 	 Increased understanding of when to use the nurse advice line, urgent care, and ED 39% decrease in avoidable ED visits 51% increase in use of nurse advice line 44% increase in use of urgent care
 Medicaid Managed Care Plan New Mexico^{viii} Molina Healthcare of New Mexico University of New Mexico Department of Family Medicine (UNM) 	Molina Healthcare negotiated with the state Medicaid office to establish a billing code that reimburse CHW services and developed a 2-year renewable contract with UNM that provided capitated payments for CHWs to provide system navigation, access to care, chronic disease management, and health literacy services in 11 counties. CHWs received a 1-week training followed by periodic in-services.	 Frequent users of ED (3+ times in 6 months) High consumption of controlled substances Poorly controlled chronic diseases (i.e., diabetes, CVD, asthma) High use of disease management, family/provider, and care coordination referrals 	 Significant reductions in claims and payments in ED, inpatient, non-narcotic and narcotic prescriptions, primary care, and specialty care Yielded return on investment of \$4 for every dollar spent Based on results, Molina Healthcare replicated program in CA and other states
Medicaid Managed Care Plan CMMI Innovation Grant Portland, OR Community Care Program ^{ix} • CareOregon	Focuses on high-cost, complex Medicaid/Medicare members using CHWs addressing social determinants of health to enhance strong primary care in safety net clinics. CHWs provide client advocacy, social support, self- management, and behavior change counseling. CHWs are health plan employees but are deployed in the clinic, Although they interact with medical staff in team huddles and clinical supervision, a majority of their time is spent in the community meeting with clients.	 Patients recruited using provider referrals and hospital census data. Claims analysis to identify 10% of members accounting for 51% of costs: 5+ ED visits 1 non-OB inpatient admission and 0-5 ED visits 2+ non-OB inpatient admissions OR 1 non-OB inpatient admission and 5+ ED visits 	 Preliminary evaluation results show: Decease in ED visits Decrease in inpatient admissions Decrease in acute events Decrease in PCP visits
Safety Net System Southeast Health Center Transitions Clinic ^x San Francisco, CA • San Francisco DPH • UCSF • City College of San Francisco	Targets recently released prisoners with chronic health conditions, provides them with transitional and primary health care, case management, and social service referrals through a specialized medical home team. CHWs are formerly incarcerated and participate in a community college educational program. A CMMI grant expanded this model to 11 clinics nationally.	 Recently released prisoner from state or federal prison (population overlaps with AB 109 releasees) 	 36% increase in average number of new patients seen each month 55% of patients attended initial appointment and 77% attended 6-month follow-up appointment 50% reduction in ED use High levels of patient satisfaction



CHW Best Practices and Cost Effectiveness Information: Safety Net Systems and Medicaid

Initiative	Overview	Participant Criteria	Evaluation Results
 Medicaid Fee-for-Service Patient Centered Transition (PaCT)^{xi} Philadelphia, PA Hospital of University of Pennsylvania Penn Presbyterian Med Ctr Spectrum Health Services 	A randomized clinical trial that trained CHWs provided social support, navigation, and advocacy to uninsured patients as they transitioned from the hospital setting to primary care from two urban, academically affiliated medical centers.	 Enrolled patients who: Were low-income, Medicaid, or uninsured Were discharged from either participating hospital Reside in five zip codes with extreme poverty, where 85% of all readmitted patients live 	 Intervention patients were more likely to: Obtain post-hospital primary care Report high-quality discharge communication Show greater improvements in mental health and patient activation Intervention patients were less likely to: Have multiple 30-day readmissions
Medicaid Fee-for-Service Hospital 2 Home Project ^{xii} New York, NY • Health and Hospitals Corporation (HHC), Bellevue Hospital	Piloted care coordination and management project for high- risk patients who were homeless, had SUD, and had frequent hospital admissions. Transportation, appointments, mental health/SUD treatment, home visits, and supportive housing placements were provided. Team included a social worker, CHW care manager, and housing coordinator supervised by a physician. CHW care managers facilitated discharge plans and managed care transitions.	 Enrolled 19 Medicaid fee-for-service patients who were: Ages 18-64 Determined as high risk using a validated predictive algorithm 	 37.5% decrease in inpatient admission 10% decrease in ED visits Increase in outpatient visits Medicaid spending decreased by \$16,383 per patient Based on pilot results, program was expanded to two other HHC hospitals
Nonprofit System with 9 Hospital EDs Community Outreach Personal Empowerment (COPE) Program ^{xiii, xiv} Houston, TX Memorial Hermann Health Care System	Certified CHWs and social workers with training and cultural/linguistic capacity help frequent users post- discharge navigate the health system, obtain a medical home, schedule appointments, and secure social services. Targets uninsured and Medicaid patients using state 1115 waiver DSRIP funds.	 Frequent users of ED (5+ ED visits or 3+ inpatient admissions in the past year) Must agree to use a physician office for non- emergency care and to follow up with scheduled appointments 	 Savings on ED visits and inpatient costs of \$5,556 per patient, with 1,022 patients from 2008 to 2011 Will compare savings pre/post-navigation intervention under state's DSRIP plan
 Medicaid Managed Care Plan Community Care of North Carolina, Northern Piedmont Community Care^{xv} Durham, NC Duke University Durham Community Health Network Community Care Partners 	CHWs work with various combinations of nurses, social workers, and health educators to provide services to specific populations. Primary activities are divided among follow-up with high-risk/high-cost hospital discharges, home visits and outreach to homebound elders, support for Medicaid managed care, and community health education. For high-risk/high-cost patients, CHWs are part of a treatment team and conduct patient follow-up post- discharge. Some CHWs follow Medicaid SPD patients, while other CHWs primarily work with the uninsured. CHWs identify social/economic needs that might interfere with effective recovery, assists in the treatment plan, and mobilizes community services/resources. For Medicaid managed care support, 7 full-time CHWs are employed and work as part of care coordination teams. A parallel program targets uninsured patients, employing 2 full-time CHWs and using volunteer community organizers.	Varies on the population	CHW employment includes salary and benefits, and has recently added two levels within the position. Although started with grant funding, CHW positions are financed by Medicaid add- on funds, a chronic care initiative, and the health system given the decrease in ED and hospitalization costs.



CHW Best Practices and Cost Effectiveness Information: Safety Net Systems and Medicaid

Initiative	Overview	Participant Criteria	Evaluation Results
Medicaid Managed Care Plan New York, NY Health Plus ^{xii}	Employed 35 CHWs to provide health risk assessments, case management referrals, appointment scheduling, clinical interventions, ED user follow-up, prenatal/well-child visit facilitation, in-home visits, and health information programs in partnership with CBOs. CHWs received in-house training.	No information available	No information available, although a need to demonstrate and bolster value of CHWs within the organization was expressed
Safety Net System Kellogg Foundation Community Voices Men's Health Initiative ^{xvi} Denver, CO • Denver Health	Provided 590 men with CHW-led outreach and case management to increase access to health services and establish continuity of care.	No information available	 Increased use of primary / specialty care Reduced use of urgent, inpatient, and outpatient behavioral health services Significant reductions in ED use Yielded return on investment of \$2.28 for every dollar spent
 Medicaid Fee-for-Service Baltimore, MD^{xvii} University of Maryland (UMD) School of Pharmacy University of Maryland Medical System MD Medicaid Diabetes Program Other patients/providers 	UMD hired CHWs to provide home visits and phone contacts to teach patients with diabetes and/or hypertension to manage their illness(es), follow therapy and behavioral regimens, and maintain visits with a PCP. With a caseload of 2-10 patients each, CHWs received 60-hour training on chronic conditions, outreach and case management, Medicaid eligibility, and social support.	 Medicaid patients identified from hospital discharge rolls who were: African-American Ages 18+ Diagnosed with diabetes and/or hypertension 	 40% decrease in ED visits and 33% decrease in hospital admissions 27% decrease in hospital admissions and Medicaid reimbursement \$2,245 average savings per patient and \$262,080 total savings Improved quality of life
Non-Profit Hospital System Contracted to Provide Nueces County's Indigent Health Care Program ^{xviii} Corpus Christi, TX • Christus Spohn Health System	Employed 4 CHWs in hospital (inpatient/ED) and 3 CHWs in primary care clinics to link frequent ED users with a medical home. Each CHW had a caseload of 10 patients. CHWs responsibilities included assisting patients with language needs; addressing concerns with a physician, RN, or social worker; and providing system navigation tools.	 Frequent users of ED (used ED multiple times for non-urgent needs in past 90 days) 	 Increased return on investment ranging from \$2.70 to \$16.56 per patient Increased patient satisfaction

¹ Bodenheimer T, Building Teams in Primary Care: Lessons from 15 Case Studies, California HealthCare Foundation, July 2007.

ⁱⁱ Vickery B and Towfighi A, Secondary stroke prevention by Uniting Community and Chronic care model teams Early to End Disparities (SUCCEED) application materials, 2012.

iii Katz M, Approve Acceptance of a Grant Award from Department of Health and Human Services; Centers for Medicare and Medicaid Services and Award Three Sole Source Agreements, Memorandum to the Board of Supervisors, April 23, 2013.

^{IV} Patient-Centered Outcomes Research Institute, A Helping Hand to Activate Patient-Centered Depression Care among Low-Income Patients (AHH), 2013 available at http://pfaawards.pcori.org/node/20/datavizwiz/detail/79006.

^v Proctor K and Shpegel R, Personal communication with Northeast Valley Health Corporation staff regarding CMMI Innovation project, January 2013.

vi Philis-Tsimikas A; Gilmer TP, Schultz J, Walker C, Fortmann AL, and Gallo LC, Community Created Programs: Can They Be the Basis of Innovation Transformations in Our Health Care Practice? Implications from 15 Years of Testing, Translating, and Implementing Community-Based, Culturally Tailored Diabetes Management Programs, Clinical Diabetes, 2012, 30(4):156-163.

vii Aguirre M, Castillo J, and Rivas S, From Innovation to Sustainability: A Program's Perspective on Successes and Challenges of Implementing a CHW Program in an HMO Setting, California Coalition for Children and Families, Best Practice Series, available at http://cchi4families.org/learn/bestpractice/.
viii Johnson D, Saavedra P, Sun E, Stageman A, Grovet D, Alfero C, Maynes C, Skipper B, Powell W, and Kaufman A, Community Health Workers and Medicaid Managed Care in New Mexico, Journal of Community Health, September 28, 2011, available at http://fcm.unm.edu/programs/care-

nm/docs/Community%20Health%20Workers%20and%20Medicaid%20Managed%20Care.pdf.

x Ramsey R, How Community Outreach Workers Can Care for Members with Complex Needs, Webinar by CareOregon to the California Improvement Network, June 26, 2013, available at http://www.chcf.org/events/2013/cin-webinar-06-26-2013.

^{*} Shivat, S, Community-Based Clinic Enhances Access to Medical Care and Reduces Emergency Department Visits for Chronically III Recently Released Prisoners, AHRQ Health Care Innovations Exchange, September 25, 2013, available at http://www.innovations.ahrq.gov/content.aspx?id=3195. x^{ai} Kangovi S, Mitra S, Grande D, White ML, McCollum S, Sellman J, Shannon RP, and Long JA, Patient-Centered Community Health Worker Intervention to Improve Posthospital Outcomes: A Randomized Clinical Trial, JAMA Internal Medicine, 2014;174(4):535-543.

xiii Raven MC, Doran KM, Kostrowski S, Gillispie CC, and Elbel BD, An Intervention to Improve Care and Reduce Costs for High-Risk Patients with Frequent Hospital Admissions: A Pilot Study, BMC Health Services Research, 2011, 11:270.

xiii Southeast Texas Regional Healthcare Planning, Texas Healthcare Transformation and Quality Improvement Program: Regional Healthcare Partnership Plan - Region # 3 / Southeast Texas Regional Healthcare Planning Pass 1, 2 & 3, December 31, 2012, available at http://www.setexasrhp.com/external/content/document/4807/1670959/1/Region%203%20RHP%20Plan%20Dec%2031%202012.pdf.

^{3V} Eyster L and Boybjerg RR, Promising Approaches to Integrating Community Health Workers into Health Systems: Four Case Studies, Commonwealth Fund, March 26, 2014.

xmi Dower C, Knox M, Lindler V, and O'Neill E, Advancing Community Health Worker Practice and Utilization: The Focus on Financing, National Fund for Medical Education, 2006.

xvii Fedder DO, Chang RJ, Curry S, and Nichols G, The Effectiveness of a Community Health Worker Outreach Program on Healthcare Utilization on West Baltimore City Medicaid Patients with Diabetes, Ethnicity & Disease, Winter 2003, Volume 13: 22-27.

xviii Erb N. Community Health Workers: Discussion Paper, Consumer Health Foundation, July 2012, available at http://www.consumerhealthfdn.org/~conshfdn/images/uploads/files/CHW Discussion Paper.pdf.