

CT Primary Care Payment Reform

Community Integration: Addressing patients' social needs to improve health outcomes

This Draft: September 11, 2018

Scope and Purpose of the Design Group

Thank you for joining the conversation about Primary Care Modernization design in Connecticut. The Practice Transformation Task Force is currently reviewing the capabilities that should be incorporated into a proposed primary care payment model design.

The purpose of the Design Group is to consider whether the capability should be included in a primary care payment bundle. During the Design Group meetings, we will have an opportunity to confirm the group's understanding of the proposed approach to Community Integration in primary care and the option's overall impact in terms of better health, better care, patient experience, provider satisfaction and cost. With a shared understanding of the option, the group will also consider whether the option should be elective or required and, if so, how it should be delivered – by all practices, by some practices, by the network, or some combination. The Design Group's conclusions will be presented to the Practice Transformation Task Force, which is responsible for making a formal recommendation to the Payment Reform Council (PRC).

Some considerations to keep in mind:

- The CT SIM primary care modernization initiative is directed at provider groups that participate in shared savings contracts and the pediatric practices within those groups.
- Proposed payment model options will include recommendations about risk adjustment (so that providers are fairly compensated for populations with higher needs) and attribution methodologies.

Understanding the Need

The Problem:

Our current primary care system does not provide flexibility or payment structures that allow practices to sufficiently address patients with social determinants of health needs, complex chronic conditions, and cultural, language, transportation and other access to care barriers (e.g. patients with limited mobility who have difficulty getting to medical appointments).

Providers are also not able to adequately address gaps in care, including for acute, preventive and chronic care, or social determinants of health needs. One study estimates that patients currently receive only 55% of care recommended in these areas (Cambridge Health Alliance). Social determinants of health have a significant impact on health outcomes and contribute to health disparities. One study suggests that social and economic factors account for as much as 55% of health outcomes. Other studies have shown that a substantial proportion of all deaths are attributable to poverty (2-6%), income inequality (9-25%), and lower socioeconomic status (18-25%) (The American Academy of Family Physicians, 2018).

There are many services available through community-based organizations that are equipped to extend primary care services into the community and can connect patients to community-based services to address these gaps. It is in some cases more efficient for a network of providers to purchase these services through community-based organizations that already provide them. However, because of the

way networks are currently reimbursed under payment arrangements that allow them to share savings from improved care management, they must get double the return on their investment on services like these to not lose money on their investment (a 2:1 Return on Investment (ROI)). Moving to an upfront payment where networks are paid on a per member per month basis for patients allows networks to cover some of these investments, and so they only need better than a 1:1 ROI to make these investments.¹ This allows networks to make incremental investments in efficiency and quality.

Proven Strategy:

Name: Community Integration

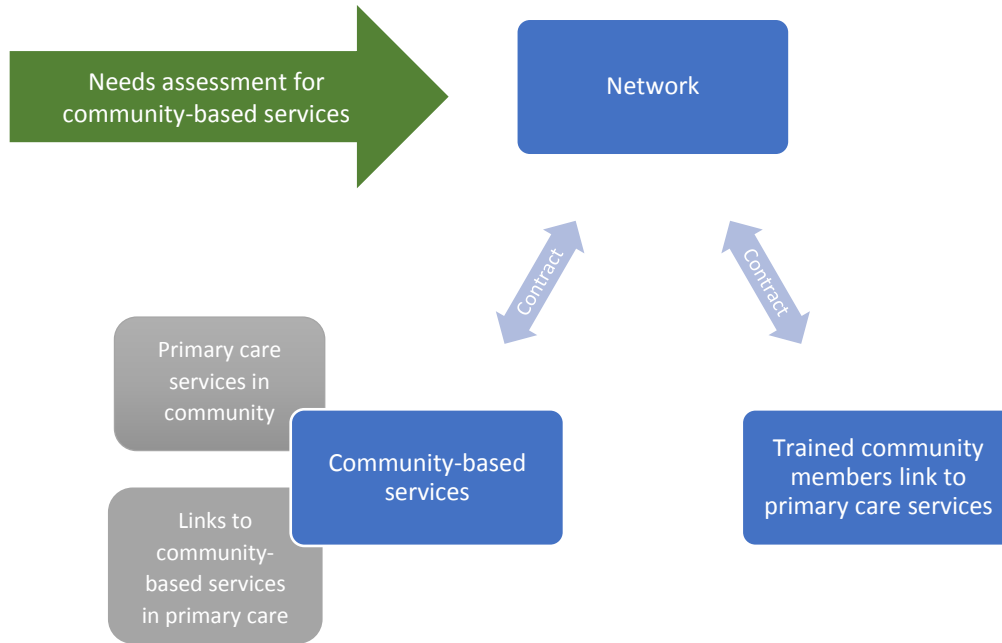
Definition: According to the US Department of Health and Human Services Health Resources and Services Administration (HRSA), community integration is the systemic coordination of general and behavioral healthcare. Community integration produces the best outcomes and proves the most effective approach to serving patients who are high risk, have social determinants of health needs, and/or have chronic conditions (HRSA, 2018)².

Community integration consists of:

1. Practices identify care gaps and needs for community-based services
2. Practices provide access to appropriate community-based services through:
 - a. Purchasing community-based services in which:
 - i. Networks contract with community-based organizations to extend primary care services into the community setting
 - ii. Networks contract with organizations to provide community-based services within medical settings
 - b. Training community members to link patients to primary care
3. Tracking of referrals to community-based services and outcomes

¹ For example, hiring a Community Health Worker (CHW) to do diabetes self-management and address social determinants of health in a target population might have an ROI of 1.8:1 (total cost of care is reduced by \$1.80 for every \$1 invested in CHW services for this purpose). Under a typical Medicare Shared Savings Program ACO deal, Medicare experiences a \$1.80 savings for every \$1 the ACO spends on CHW support. Medicare shares 50% of the \$1.80 with the provider, so the provider gets 90 cents. In a new model, the ACO receives a PMPM to cover some of these investments. If the ACO spends \$1 of that PMPM as described above, they net 90 cents. So rather than lose money, their investment generates real shared savings revenue.

² Behavioral health integration in primary care is addressed in a separate skeleton.



1. Practices identify care gaps and needs for community-based services

- a. Practices identify needs for community-based services based on:
 - i. Social determinants of health screenings
 - ii. Gaps in chronic condition care management that can be addressed more efficiently by community-based services
 - iii. Cultural, language, health literacy, and socio-economic needs of the population that align with community-based services
 - iv. Gaps in transition of care for patients moving from acute settings to home and community-based settings
 - v. Gaps in care for patients with complex conditions
 - vi. Analysis of high utilizers of Emergency Department and hospital services

Social Determinants of Health Screening

To address social determinants of health, practices need to understand the social determinants risks for patients. The American Academy of Family Physicians (AAFP) defines social determinants of health (SDOH) as the conditions under which people are born, grow, live, work and age. Prominent factors of SDOH include socioeconomic status; racism and discrimination; poverty and income inequality; and lack of community resources (AAFP, 2018). Screening for social determinants of health includes:

- a. A member of the primary care team conducts a manual or computerized patient assessment to identify both clinical and social determinants of health. The screening tool should address food insecurity, housing instability, utility needs, financial resource strain, transportation, and exposure to violence (with childcare, education, employment, health behaviors, social isolation/engagement, and behavioral/mental health as optional categories) (Health Leads, 2017). Screening tools should be brief and simple with targeted questions that match the needs of patient populations (Health Leads, 2017). An example of an SDOH screening tool can be found [in Health Leads' Social Needs Screening Toolkit](#).

- b. A standard set of social determinants codes are captured in the patient's EHR.
- c. A care team member connects patients to community services that address their individual needs.
- d. Patients are screened annually. High-risk patients are screened every 6-months.

2. Practices link to appropriate community-based services

Networks contract with providers of community-based services to extend primary care services into the community and help patients access appropriate support services. Several models for purchasing community services may be used depending on practice needs:

Extending Primary Care Services to the Community

Prevention Services Initiative

Definition: The prevention services initiative promotes prevention services delivered in community settings. ACOs contract for the services of a community-based organization to improve chronic care outcomes for a population that they are having trouble serving effectively. This may be due to several reasons, including unmet social determinants of health needs, cultural or health literacy barriers that mitigate engagement, discomfort with the medical setting, or language barriers.

Case Study: The Connecticut State Innovation Model's Prevention Services Initiative (PSI) provides technical assistance to Advanced Networks/FQHCs and community-based organizations (CBOs) to help healthcare organizations establish contracts with CBOs to provide community- and evidence-based diabetes self-management or asthma home visiting services to their patients. Seven Connecticut healthcare organizations and CBOs have been selected to participate in the program (CT PSI, 2018). Technical assistance aims to enhance business competency skills and organizational capabilities of CBOs so that they can enter into at least one contractual relationship with a healthcare provider that is participating in value-based payment; increase the number of individuals with unmet prevention needs who complete community-placed, evidence-based prevention services and maintain or improve wellness; and improve Advanced Network/FQHC performance on quality measures related to asthma or diabetes and associated Emergency Department utilization or admissions/readmissions for the patient population through use of community-placed, evidence-based prevention services. For example, the Hispanic Health Council and Khmer Advocates provide culturally appropriate chronic disease management services to Hispanic patients and Cambodian Americans, respectively. In other partnerships, health departments provide asthma in-home assessment and remediation services. The full list of partnered organizations can be found [here](#).

Community Paramedicine

Definition: Community paramedicine (CP), also referred to as Mobile Integrated Health (MIH), expands the role of paramedics and emergency medical technicians (EMTs) with the goal of improving access to care and serving as an extension of the primary care team. Community paramedics help lower preventable emergency room visits and readmissions, and cut costs for hospitals, insurers, and patients (NGA, 2017). Community paramedics are supervised by trained clinicians through teleconsultation and receive the education and training to be able to provide SDOH-risk patients the care they need (i.e. primary care, behavioral health assessments, post-discharge follow-up care, health education, medication management, and patient referrals) (NGA, 2017). CPs help lower ED visits and healthcare costs and can reach SDOH-risk patients in the comfort of their home. A recent Connecticut Senate Bill 317 was passed that allows paramedics to provide patient care when ambulance transportation is not needed. The legislation established a pilot program allowing paramedics to provide the expanded

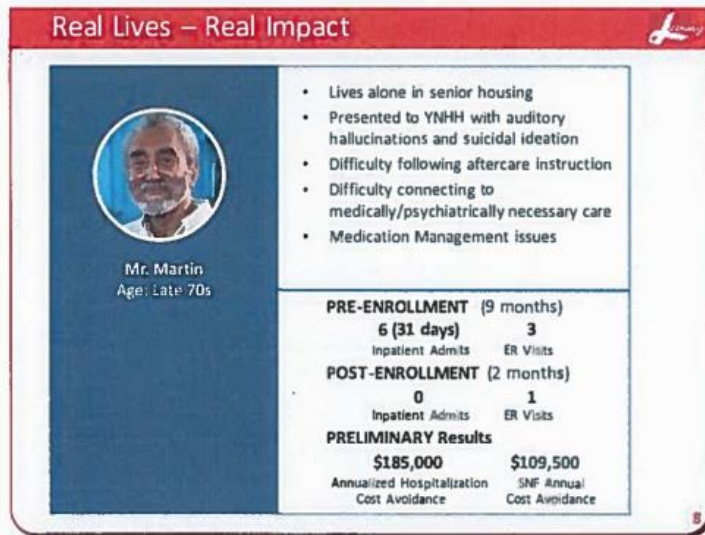
medical care they are trained to administer, rather than being limited to transporting patients to a hospital (New Haven Register, 2017). Connecticut now has a Mobile Health Integrated workgroup which has recommended several options for community paramedicine. Among the options are alternative destinations, or licensed medical facilities (which include urgent care, orthopedic, or other specialists), decreasing the likelihood of re-admissions by filling in coverage gaps, high utilizer groups, hospice revocation avoidance, and a regional, structured nurse triage system integrated with Emergency Medical Dispatch programs (MIH Sub-Committee, 2018).

Case Study: Between 2014 and 2015, the Massachusetts-based Commonwealth Care Alliance (CCA) piloted a community paramedicine program, Acute Community Care (ACC), to serve its members in the Greater Boston area. The CCA partnered with the [EasCare Ambulance company](#) and the Massachusetts Department of Public Health to dispatch paramedics to patients who called the CCA's urgent care line after business hours or were identified by CCA clinical staff (CHCS, 2016). On-call clinicians (typically nurse practitioners or physician assistants) assess whether callers are appropriate for an ACC paramedic visit, and, if dispatched, ACC paramedics visit patients in their homes to provide assessment and treatment, and concurrently communicate with primary care teams (CHCS, 2016). For example, ACC paramedics made a home visit to a quadriplegic, vent dependent patient with multiple condition who became hypotensive with periods of unresponsiveness. AAC paramedics were able to conduct a physical exam at the patient's home, diagnose a urinary tract infection and prescribe medication to avoid an ED visit. In another example, AAC paramedics were able to help care for a terminally ill patient with end-stage congestive heart failure with his home-based primary care team instead of having him admitted to the hospital (CHCS webinar, 2017). The ACC has been effective in diverting use of emergency services and helping patients remain in their home while receiving quality care. A business case analysis found that CCA accrued significant savings of \$538 per patient per month by preventing unnecessary ED utilization (NGA, Community Paramedicine Models).

Leeway Community Living Model

Definition: Building on Leeway's strength supporting health and well-being in the Greater New Haven area and through partnerships with diverse community stakeholders, Leeway's Community Living Model supports informed choice for individuals at risk for long-term skilled nurse home placement. Leeway was awarded a \$2.7 million diversification grant from the Connecticut Department of Social Services (DSS) to demonstrate an effective Community Living Model (CLM) supporting patients with serious chronic illnesses post-acute hospitalization successfully reducing skilled nursing home placements. In 2016 Leeway facilitated a series of comprehensive community focus groups to co-create and develop a plan to implement an Intensive Community Case Management program. In October 2017, Leeway Community Living Model was launched. Leeway has had outstanding success to date with reducing admissions to skilled nursing homes and reducing frequency of hospital admissions and emergency room visits.

Case Study:



Leeway Community Living Model is a cost-effective team care model that has proven to improve the health of adults living with medical conditions by working with individuals in their homes and in their communities to manage complex health care needs, track changing care needs, and leverage needed social services. Specifically targeting individuals with multiple chronic diseases, the Leeway coordination care team is anchored to the primary care physician group to identify patients at high risk for hospitalization and/or nursing home placement. The core team begins their work with a social worker and registered nurse conducting a home visit and gathering a comprehensive medical and psycho-social assessment from the medicine cabinet to the kitchen cabinet. Based on the findings a larger multidisciplinary team including a pharmacist, recovery coach, and registered nurse creates an individualized care plan consistent with what matters most to the patient.

Outcomes:

Yale University PhD statisticians have completed multiple statistical analysis demonstrating statistically significant relationship between program indicators. The data analysis demonstrates the strength of this evidence-based program:

- Supports the program is effective across multiple demographics and all participants benefit from the program equally across race, gender, and age
- Corroborates that the older a member is and the longer a member is engaged in the program, the more emergency room utilization decreases
- Demonstrates significant relationship between length of time in the program and increased savings per month. Typically, for individuals with multiple diagnoses the cost of care would go up. The longer in-service care, the higher the savings normalized by month.
- Reveals stable housing is significantly related to cost savings

For full statistical analyses, see the Appendix.

Linking to Community Services in Medical Settings
Health Leads

Definition: Primary care practices contract with organizations that provide on-site aids who meet with patients with SDOH needs during their medical encounter to connect them with needed social services. This method helps healthcare staff devote more time to patient coordination and care by providing supplemental staff trained in community resources to make linkages.

Case Study: Health Leads is a national healthcare organization that connects low-income patients with the basic resources they need to be healthy. The model begins with families seeking medical care at one of Health Leads' fifteen clinical partner institutions. Families then complete a pre-visit survey to screen for unmet resource needs that a healthcare provider then addresses and refers to Health Leads. In-office, volunteer Health Leads' Advocates assist families in accessing basic resources like food, clothing, fitness programs, and housing. Health Leads Advocates then follow up with families and provide updates to the healthcare provider (Social Impact Exchange, 2016).

Community Care Teams

Definition: Community Care Teams (CCTs), or community health teams (CHTs), are locally based care coordination teams employed to manage patient's complex illnesses across providers, settings, and systems of care (CHCS, 2016). While the structure of CCTs may vary by state and by community, CCTs generally incorporate a range of clinical and non-traditional health providers such as community health workers, peers, and navigators (CHCS, 2018). Care team members are deployed after information about a patient is sent between a clinical and non-clinical service, with special attention paid to transition care (CHCS 2016). CCTs can help coordinate care between primary care providers, hospitals, and community resources to help providers deliver quality-driven, cost-effective, and culturally appropriate patient-centered care (CHCS, 2016). There are a number of CCTs operating in Connecticut in various stages of development. Some have been driven by local hospitals with the goal of reducing excessive emergency department usage by patients affected by substance abuse, behavioral health issues, and/or homelessness. There are initiatives in the state to create collaboration among the CCTs and to address challenges of data collection and implementation of this model, perhaps on a broader scale. The CCTs, the Partnership for Strong Communities, and the Connecticut Hospital Association have been the primary drivers of this effort with more recent involvement of the Connecticut Health and Educational Facilities Authority from a financing perspective.

Case Study: Middlesex County Community Care Team is comprised of thirteen community agencies that specialize in the delivery of care for patients experiencing substance abuse and mental health disorders. The MC CCT team is comprised of staff of Middlesex Hospital and community providers of behavioral health and social services. At a typical CCT meeting, the group discusses 10-20 patients who have come to the Emergency Department at least seven times within a six-month period and complete a Release of Information (ROI) form to allow the CCT to coordinate an individualized care plan (Middlesex Hospital, 2017). They come to the table having researched patient histories and psycho-social backgrounds and share outpatient and inpatient utilization, medical diagnoses, access to care issues/gaps, housing status and options, insurance status, and arrests/legal issues during the meeting (Middlesex Hospital, 2017). The team then brainstorms the best care management strategy, and collaboratively develops customized care plans. Follow-up is an ongoing, long-term process, and the team reviews progress, checks status and updates six-month ROI agreements, and revises care plans as needed (Middlesex Hospital, 2017). The MC CCT measures impact metrics (number of ED and inpatient visits pre- and post-intervention) and cost and tracks the number of patients who have received care as well as their diagnosis category, gender, race/ethnicity, age distribution, insurance status, and housing status (Middlesex Hospital, 2017).

Case Study: Community Care of North Carolina (CCNC) has an established partnership between Medicaid, primary care physicians, and other local health care providers to achieve quality, utilization, and cost objectives in the management of care for Medicaid recipients (CHCS, 2016). Each CCNC network includes a local steering committee for oversight functions and is comprised of a diverse range of stakeholders, including primary care providers, hospitals, public health offices, social service agencies, specialists, home health providers and school districts, all of whom work together to provide the best care for patients in need (CHCS, 2016). CCNC prioritizes patients who have higher hospital costs, ED visits, and readmission rates, and identifies patients in need through physician referrals, claims data, screenings, and chart reviews (CHCS, 2016). As a result, the CCNC avoided costs amounting to nearly \$1 billion between 2007-2010, North Carolina is the only state with consistent declining growth rates in medical spending over a decade (including a visible decrease in emergency department visits and hospital admissions and readmissions), CCNC now ranks in the top 10% of health plans for managing diabetes, asthma and heart disease, and has successfully reduced waste and duplication (CCNC, 2018).

Community Referrals to Primary Care

Barbershop Approach

Definition: This method is applied when influencers and leaders in the community are trained to screen and educate other community members on health and condition management, directing them to primary care services and lifestyle changes when needed.

Case Study: A recent cluster-randomized trial of blood-pressure reduction in black barbershops concluded that health promotion by barbers resulted in lower blood-pressure rates among black male barbershop patrons when coupled with medication management (NEJM, 2018). The control group consisted of barbers who encouraged lifestyle changes or referred customers with high blood pressure to physicians. In the intervention group, barbers screened patients, then handed them off to pharmacists who met with customers in the barbershops. They treated patients with medications and lifestyle changes according to set protocols, then updated physicians on what they had done (Carroll, 2018). In another example, doctors trained hair stylists to quiz 400 of their customers on stroke knowledge, talked with them as they did their hair, and then sent them home with wallet cards explaining stroke warning signs. Other groups have used beauticians to raise awareness of breast cancer and mammograms (The Associated Press, 2015).

3. Tracking referrals and outcomes

Care team members track referrals to community-based services and whether patients have accessed them. Networks track how purchased services are being used and changes in target outcomes, such as ED utilization, readmissions, costs, and reduction in social determinants of health risks.

Intended Outcomes (CHCS, 2017):

- Highlight social determinant needs of patients
- Increase access to prevention and primary care services in community-based settings
- Expand the capacity of the primary care team by extending primary care services into the community
- Lower emergency department (ED) visits and readmissions amongst high-risk, low-income patients
- Improve long-term health outcomes
- Improve management of chronic conditions

Consumer Needs: Community Integration can address the following consumer needs:

- Transportation barriers
- Access to community-based services
- Improvement of health outcomes particularly in low-income communities
- Help for patients in navigating available/affordable resources
- Religion/language barriers and other cultural differences
- Addressing a variety of support services beyond traditional medical care (i.e. mental health services, nutritional services, etc.)

Health Equity Lens:

- Provides a better understanding of a patient's health and environment who is living below the FPL, in a poverty-stricken community, in a food-insecure household, is unemployed, is subject to domestic abuse, experiences religion, race, and language barriers, is currently homeless, and the like.

Implementing the Strategy

Example Scenario: A single mother of two, living below the FPL and in a food-insecure household with diabetes, checks in to her primary care provider's office. While waiting to see the doctor, she is distributed a social determinants of health screening tool. A Community Health Worker (CHW) trained in SDOH assessments and community linkages reviews the patient's SDOH risk and enters it into her electronic health medical records. The CHW connects the patient with a local food pantry and an organization in her community offering diabetes self-management courses. The CHW calls the patient the following week to confirm that the patient was able to access the community services.

HIT Requirements:

- Electronic Medical Record system that captures SDOH risk assessment results in an exportable format
- Electronic Medical Record system that captures referrals to community-based services and encounters that happen within the community

Implementation Concerns (CHCS, 2017):

- Communicating appropriately with patients about SDOH to avoid jeopardizing patient/provider relationships.
- Building an adequate referral network of agencies that offer expertise, services, or resources that effectively address identified social needs and keeping resource lists updated
- Integrating electronic assessment tools and resource inventories appropriately into existing EHR systems.
- Organizations who may need assistance in forming partnerships with social service agencies, developing strategies to align their systems, and building a streamlined referral process to track and deliver comprehensive resources to patients with complex needs.

Impact

Aim	Summary of Evidence
<i>Health promotion/prevention</i>	<p>Evidence suggests that population health improvement will rely on continued and enhanced collaboration between the healthcare and human services sectors (CHCS, 2017).</p> <p>Community-based services that promote prevention, like the services provided by CBOs participating in PSI can increase use of preventive services and improve self-management for chronic conditions.</p>
<i>Improved quality and outcomes</i>	<p>Readmissions: A recent Community Paramedicine case study showed a pilot program in five California communities reduced hospital readmissions within 30 days of discharge across most pilot sites. Only one site that served only heart failure patients and provided less intensive services than the other post discharge pilot sites produced dissimilar results (CHCF, 2017).</p> <p>Health outcomes: A randomized clinical trial evaluating the health outcomes of a pediatric social needs navigation program showed the program significantly decreased a families’ reports of social needs and improved children’s overall health status as reported by caregivers (JAMA Pediatrics, 2016).</p> <p>Health Equity: A recent study found that a model integrating primary care with existing public health infrastructure (i.e., community-based resources) may promote greater health equity by addressing the unmet basic needs that low-income families disproportionately face (CPJ, 2012).</p>
<i>Patient experience</i>	<p>One study examining an interactive risk screening tool for families in a school-based pediatric clinic found that the majority (87%) found the survey easy to understand. There are limited studies evaluating patients’ satisfaction with integrated community services like community paramedicine.</p>
<i>Provider satisfaction</i>	<p>One study addressing social determinants of health in a clinic setting found that the role of medical assistants (MAs) in identifying social problems and using CHWs in interventions led to lighter workloads for providers, leading to improved quality of care for patients (JABFM, 2015).</p>
<i>Lower Cost</i>	<p>One study of a program that connects high-risk patients to critical services (such as access to medical homes, housing, fresh food and nutrition, transportation, and social support for transitions back to the home) in San Diego demonstrated success at reducing patient readmissions. Patients referred to the CI program experienced a 9.6% readmission rate compared to a</p>

30% rate in a comparison group. The CI program provided a return on investment of roughly \$17,562 per inpatient admission and \$1,387 per ED admission, with higher returns for uninsured populations (CHCS, 2018).

APPENDIX

Learning from Others

Case Study: Project Access NOW, or PANOW, connects individuals in Portland, Oregon to needed paid community-based services along with social services to ensure safe discharge from emergency and inpatient hospital settings. Since 2008, PANOW has partnered with local health systems, hospitals, and CCOs to: (1) provide uninsured low-income community members with primary and specialty care; (2) pay health insurance premiums for people who qualify for coverage under the Affordable Care Act, but cannot afford their premiums; and (3) connect low-income people being discharged from the hospital to non-medical resources to help them get home safely and ensure access to follow-up care via the program known as C3CAP. In addition, PANOW's Pharmacy Bridge Program offers prescriptions at no cost or with low-copays (CHCS, 2018).

Results

- Since its inception in 2014, PANOW's C3CAP has served more than 17,000 clients, and filled more than 26,000 requests (CHCS, 2018).
- C3CAP program costs are roughly \$638,000 per year, while the program helps to avoid nearly 740 inpatient days annually, saving an estimated \$2.78 million (CHCS, 2018).
- Through C3CAP, hospitals and CCOs have access to a secure, electronic referral system, which serves as a screening and monitoring tool, and allows frontline hospital staff to connect eligible patients with vouchers for an array of services and programs to meet their needs (CHCS, 2018).

Lessons Learned

- It's important to maximize trusted partnerships with vendors for the program to run smoothly (CHCS, 2018).
- An automated request system (on a secure web-based platform) that allows providers to submit requests at any time is key to tracking patient utilization and associated costs and monitoring community needs (CHCS, 2018).
- Estimating program cost and financial stability is difficult since PANOW must renegotiate contracts with each health care partner on an annual basis (CHCS, 2018).
- Demonstrating avoided hospitalizations and associated costs is also difficult due to external factors, but is key in ensuring PANOW's sustainability (CHCS, 2018).

Additional Reading:

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Model A: Indicates that the ER usage rate goes down with older persons in the program. A surprising finding since older people are often more likely to use the ER.

Model B: In the output below we can see that the predictor variables of Gender, Race and Housing are not significant because the P values for housing is less than 0.05, which indicates that it is not statistically significant. In contrast the model suggest a correlation of good outcomes to stable housing.

Model C: suggest that savings per in-service month increased significantly the longer the participants are in the program. The non-significance of the Gender and Race variables suggest that the program aids participants regardless of gender or race.

MODEL A

Model A: ER_RATE over time with age as the independent variable

Variable	Estimate	Std Error	ZValue	P Value
Intercept	0.074	0.00223	3.22	0.00241
Age	-0.00096	0.00036	-2.668	0.0106

NOTE:

A significant number of our clients that are part of this data analysis have diagnosis that include Mental Illness and Substance abuse and they are at High Risk for HIV

NOTE: Data analysis completed by **Russell Barbour Ph.D.** Associate Director Yale School of Public Health



Model B

Model B: Total Savings

Line#

1	Variables		Estimate	Std. Error	Z Value	P Value
2		Intercept	-59380.8	194567.6	-0.305	0.762
3		Age	-1765.5	2307.2	-0.765	0.4493
4	Gender	Female	Referent			
5	Gender	Male	48764.2	56823.5	0.858	0.3966
6	Race	Black	Referent			
7	Race	Other	133019.7	114494.4	-1.162	0.2532
8	Race	White	62998.7	60938.0	1.034	0.3083
9	Total In-Service Days		724.7	592.0	1.224	0.2291
10	Homeless		Referent			
11	Housing status	Live w/Relatives	429925.7	242422.1	1.773	0.0849
12	Housing status	Other	190205.2	151220.6	1.258	0.2168
13	Housing status	Own Home	369061.0	163299.1	2.260	0.0301
14	Housing status	Rent	285603.8	139134.6	2.0530	0.0476

NOTE:

P Values less than 0.05 demonstrates that the data variables analyzed signifies that the program is very successful for those Variables

NOTE:

A significant number of our clients that are part of this data analysis have diagnosis that include Mental Illness and Substance abuse and they are at High Risk for HIV

NOTE: Data analysis completed by Russell Barbour Ph.D. Associate Director Yale School of Public Health



Model C

Model C: Savings per month with time in program

Variables	Estimate	Std.Error	ZValue	PValue
Intercept	8.04 e-15	1.3e-15	6.43e+15	<0.0001
Period of Care Months	1.000e+15	1.32e-16	7.56e+15	<0.0001

FINDINGS

1. Savings from the program does not discriminate for Age, Gender and Race
2. Housing is a Key variable for the success of the Program
3. Longevity in the program increase overall cost savings
4. Zip codes show that the program supports many neighborhoods
5. Emergency Room Usage decreases over time for older participants

NOTE:

A significant number of our clients that are part of this data analysis have diagnosis that include Mental Illness and Substance abuse and they are at High Risk for HIV

NOTE: Data analysis completed by **Russell Barbour Ph.D.**, Associate Director Yale School of Public Health