PEER SUPPORT in the PATIENT-CENTERED MEDICAL HOME and PRIMARY CARE

CONFERENCE REPORT
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Founded in 2006, the Patient-Centered Primary Care Collaborative (PCPCC) is a not-for-profit membership organization dedicated to advancing an effective and efficient health system built on a strong foundation of primary care and the patient-centered medical home. The PCPCC achieves its mission through the work of its five Stakeholder Centers, led by experts and thought leaders dedicated to transforming the U.S. health care system through delivery reform, payment reform, patient engagement, and benefit redesign. Today, PCPCC’s membership has grown to over 1,200 diverse stakeholder organizations who represent health care providers across the care continuum, payors and purchasers, and patients and their families.

About Peers for Progress
A program of the American Academy of Family Physicians Foundation, Peers for Progress is dedicated to promoting peer support in health, health care and prevention around the world. Through research, collaborative sharing of program and quality improvement resources, and supporting advocacy, it seeks to help the thousands of peer support programs around the world learn from each other, improve the services they offer, gain greater recognition of their work, and achieve integration of peer support as a normal, widely available component of high-quality health care. Peers for Progress is supported by grants from the Eli Lilly and Company Foundation and the Bristol Myers Squibb Foundation’s Together on Diabetes Initiative. For more information on Peers for Progress, visit www.peersforprogress.org, or follow us on Twitter at @peers4progress.
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KEY MESSAGE

The patient-centered medical home and peer support can help us address the crisis in health care.

- Patient-centered medical homes deliver higher quality care that comprehensively addresses a person’s needs. This type of advanced primary care can help avert the national financial catastrophe posed by health care “as usual.”

- Peer support reaches those we often fail to engage, helps those with complicated psychosocial and multi-morbid conditions, enhances engagement in clinical care and adherence to treatment, achieves positive clinical and quality-of-life outcomes, and reduces avoidable emergency and hospital care.

This report shows how these two go together in their orientations toward health and people’s lives, supported by concrete programs and results. Together, they can help individuals, providers, and the broader community attain healthier and more satisfying lives at affordable costs.

Background

Since passage in 2010, the Affordable Care Act has emphasized primary care delivery reform and testing of new payment models that engage people in their own health, increase access to preventive services, and enhance chronic disease management. These reforms shift our health care system away from one that treats illness after it occurs to one that relies more on team-based primary care and population health with stronger connections to community and social supports for patients and their families. Most recently, the Medicare Access and Children’s Health Insurance Program Reauthorization Act (MACRA), passed in April 2015, offers increased reimbursement for primary care providers to practice as patient-centered medical homes (PCMH) or utilize other alternative payment models. Along with improved care quality and satisfaction, the PCMH model is demonstrating its ability to control health care costs by reducing avoidable intensive, hospital, and emergency care. As a part of this paradigm shift to advanced primary care, peer support – provided by Community Health Workers (CHWs) and others – plays an increasingly critical role.

A key objective of the PCMH is to engage the health of the whole person from the perspective of his/her values, interests, family, and community at-large. Substantial evidence shows that peer support provided by CHWs, lay health advisors, Promotores de Salud and others can enhance the whole-person view of health and be integrated into primary care through a wide range of mechanisms (e.g., group visits, support groups). Peer support has a long history and strong track record in health outreach and frontline care. Given the evidence, many health organizations have formally recommended the implementation of peer support approaches, including an emphasis on CHWs in the World Health Organization’s Global Health Workforce Alliance.
Given the reports of the contributions of peer support and CHWs to PCMHs and the centrality of their shared objectives and emphasis, the National Council of La Raza (NCLR), the Patient-Centered Primary Care Collaborative (PCPCC), and Peers for Progress of the American Academy of Family Physicians Foundation organized a conference to highlight models of PCMH and primary care integration of CHWs, Promotores de Salud and other providers of peer support.

The conference, “Peer Support in the Patient-Centered Medical Home and Primary Care”, was held April 6-7, 2015 at the headquarters of NCLR in Washington, D.C. We invited ten model programs as a focus and stimulus for discussion as well as a range of leaders from the practice, research, government, payor and civic sectors. Discussion ranged widely, from important technical issues such as different approaches to use of Electronic Health Records (EHRs), to policy and health care financing. This report summarizes the discussions of the meeting, where we are headed in terms of CHW integration into advanced primary care and the PCMH, and descriptions of the ten model programs.

### Benefits of Peer Support in Health and Health Care

<table>
<thead>
<tr>
<th>Benefit</th>
<th>Description</th>
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<tbody>
<tr>
<td>Link people</td>
<td>to share knowledge and experience</td>
</tr>
<tr>
<td>Provide health education</td>
<td>to individuals and communities</td>
</tr>
<tr>
<td>Give practical assistance</td>
<td>to achieve and sustain complex health behaviors like those of diabetes management</td>
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<tr>
<td>Offer emotional and social support</td>
<td></td>
</tr>
<tr>
<td>Help people cope with the stressors</td>
<td>that accompany health problems</td>
</tr>
<tr>
<td>Help people access and navigate clinical care and community resources</td>
<td></td>
</tr>
<tr>
<td>Increase individual and community capacity</td>
<td>for understanding health problems and promoting ways to address them</td>
</tr>
<tr>
<td>Advocate</td>
<td>for patients and their communities</td>
</tr>
<tr>
<td>Build relationships based on trust</td>
<td>rather than expertise</td>
</tr>
<tr>
<td>Build cultural competence of health care providers</td>
<td></td>
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<tr>
<td>Improve two-way communication between patients and health care teams</td>
<td></td>
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<tr>
<td>Help address complex multi-morbidities</td>
<td>serving as a bridge between primary care and behavioral health</td>
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Peer Support and the Patient-Centered Medical Home

A recent Institute of Medicine discussion paper highlights the role that CHWs increasingly play in team-based primary care and the tremendous gains that CHWs have shown in improving health. The report acknowledges that in spite of implementation obstacles, scaling of these models can be especially effective in providing care to vulnerable populations with the goal of achieving the Triple Aim of better care, better population health and lower costs.

Recent reports have documented systematic efforts to integrate CHWs into primary care. For example, CHWs were integrated into a PCMH that served a very low-income population in the Bronx, New York. The CHWs provided a range of care management services and achieved varied benefits including reductions in emergency and hospital care as well as a net savings of $1135 per patient per year. Additional reports included a Denver CHW outreach program that increased regular care and decreased emergency, hospital, and behavioral health care, resulting in a return on investment of $2.28 per dollar spent.

The PCPCC actively promotes the medical home as set forth by the Agency for Healthcare Research and Quality.

<table>
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<th>Five Core Attributes of PCMH</th>
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<tr>
<td><strong>Patient-centered</strong></td>
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<td>The PCMH supports patients in learning to manage and organize their own care based on their preferences, and ensures that patients, families, and caregivers are fully included in the development of their care plans as well as participants in quality improvement, research, and health policy efforts.</td>
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<tr>
<td><strong>Comprehensive</strong></td>
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<tr>
<td>The PCMH offers whole-person care from a team of providers that is accountable for a patient’s physical and mental health needs, including prevention and wellness, acute care, and chronic care.</td>
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<td><strong>Coordinated</strong></td>
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<tr>
<td>The PCMH ensures that care is organized across all elements of the broader health care system, including specialty care, hospitals, home health care, and community services and supports.</td>
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<tr>
<td><strong>Accessible</strong></td>
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<tr>
<td>The PCMH delivers accessible services with shorter waiting times, enhanced in-person hours, 24/7 electronic or telephone access, and alternative methods of communication through health IT innovations.</td>
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<tr>
<td><strong>Committed to Quality and Safety</strong></td>
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<tr>
<td>The PCMH demonstrates commitment to quality improvement and the use of data and health information technology (HIT) and other tools to guide patients and families to make informed decisions about their health.</td>
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Peer support can be a critical part of this developing health delivery model that provides better preventive care and improved support for patients and families, especially those with chronic conditions. Expanded primary care teams can address patient needs comprehensively where patients and their families live – in their homes, schools, places of work and communities. Several features of peer support are especially pertinent to prevention, disease management and comprehensive attention to patients’ needs in the PCMH. First, a major goal of the PCMH is to engage individuals and communities in their own health. Peer support and CHWs have been shown to be adept at providing coaching and encouragement that is very helpful, for example, in reducing lifestyle risk factors or managing chronic illnesses.

In recent years, the PCMH has increased its focus on community outreach, thus serving as an excellent channel for reaching populations. The majority of adults – roughly 55% – visit a primary care provider at least once a year.\textsuperscript{25} Thus promoting CHWs to link with PCMHs and other primary care channels enables peer supporters to expand their outreach. Furthermore, the PCMH or primary care practice provides clinical expertise and back up, giving CHWs security in knowing that other members of the health team can provide support and answers to questions beyond the CHW’s expertise.

**Peer Support, Community Health Workers, Promotores de Salud**

Peer support is provided by CHWs, Promotores de Salud, Lay Health Advisors, Health Coaches, Navigators, and groups with a variety of other titles. Here we have adopted the common practice of referring to these all as “Community Health Workers” or “CHWs” with the understanding that there are some important differences among them. We use “peer support” to refer to the peer support services these groups often provide, such as assistance in daily management and prevention, social and emotional support, linkage to clinical care and community resources, and ongoing, ready availability of support.\textsuperscript{26,27}
REPORT OF DISCUSSIONS

What follows is a summary of the discussions that participants had over the course of the conference. The content has been categorized into 11 topics:

- Organization of Care
- Relationships with Clinical Care
- Relationships with Communities
- Behavioral Health
- Integration of eHealth
- Maintaining Peerness and Community Ties
- Strategies for Health Care Priorities
- Financing and Payment Reform
- Value-Add of Peer Support
- Success Factors
- Opportunities
Organization of Care

How CHWs are organized with or linked to primary care is a critical issue for many. Participants at the meeting discussed the central role of communication among members of the care team and how EHRs can be used to facilitate communication. Specific comments included:

- Contributions of EHRs to communication across the care team:
  - A number of programs enable CHWs to enter notes directly into patient records and use these notes to connect with other members of the clinical team.
  - However, the EHR isn’t a panacea to effective communication and “getting to chart in the EMR is not a solution” that replaces strong communication among the team.

- Merely bringing members of the clinical team together with CHWs is not enough. Specific plans are needed for how the team, including the CHW, will interact and on which issues. Beyond the roles and responsibilities of each team member, the team will benefit from planning around who supervises, monitors, trains, and deploys peer supporters. Moreover, there is a need for workflow plans that are organized by specific objectives.

- Monitoring peer support services is critical. Various tools for this include a patient visit summary template (developed by the San Ysidro Health Center, Inc., and the South Bay Latino Research Center at San Diego State University) or a Compañeros en Salud contact sheet (from Alivio Medical Center in Chicago).

- Conducting a group medical visit or shared medical appointment is a useful approach to providing clinical care, group peer exchange and support, and a venue for peer support services. The ABCs of Group Visits: An Implementation Manual For Your Practice (Springer 2013) by Edward B. Noffsinger was cited as a useful guide. Reimbursement for group visits is becoming increasingly available through public programs, like Medicare, as well as numerous private payors.
Relationships with Clinical Care

How CHWs interact with clinicians was a substantial topic of discussion, with various models highlighted in this report. In some communities, CHWs are staff members who are part of the clinical team. For example, at Alivio Medical Center in Chicago, CHWs may be part of a separate unit, but have close linkages and working relationships with the team. In Birmingham, CHWs are part of a separate 501c3 organization, Connection Health, that contracts with primary care providers to provide peer support services. Other observations from attendees included:

- As with EHRs, co-location of CHWs with clinical teams can contribute to communication and integration, but co-location alone is insufficient. Participants noted the importance of building specific work plans for communication and coordination that address agreed upon objectives. Having only general plans to coordinate and “keep each other informed” are unlikely to be successful.

- Patients also need to understand the roles and responsibilities within the care team. Patients cannot be expected to embrace a multidisciplinary care team if they don’t understand what it is and why it’s important. In order to maximize patient engagement, we need to create tools to prepare patients to work with multidisciplinary care teams that include CHWs.

- Concern was raised about overwhelming patients with a multitude of disjointed services. Although multidisciplinary team-based care makes great sense in many ways, too many uncoordinated services can be overwhelming for patients. Half-day visits that include three or four different providers may leave individuals’ heads spinning rather than feeling as though they have been treated comprehensively and appropriately with logical care planning.

\[
\text{Should CHWs be a member of the clinical practice or be in the community and closely linked to the practice?}
\]

Many believe that CHWs should be part of the clinical team, using innovations such as shared medical visits to promote peer support. However, concerns were expressed about losing the community connection, which is the major strength of the CHW model. In contrast, concerns were also expressed about CHWs operating in the community without effective links to clinical practices.

Integration is essential and participants agreed that no one size fits all; multiple best practices are needed. The key to integration is that CHWs are viewed as complementary but not subordinate to clinicians – “CHWs are real CHWs, not little doctors and nurses.” In this regard there is an ongoing need to define the unique value that CHWs bring to the team and to patients and their families.
Relationships with Communities

A key objective of the PCMH is to engage communities and to provide care that reflects their preferences and values. Advanced primary care is where public health meets clinical care and is the heart of the “medical neighborhood.” The PCPCC defines the medical neighborhood as:

A clinical-community partnership that includes the medical and social supports necessary to enhance health, with the PCMH serving as the patient’s primary “hub” and coordinator of health care delivery. The goals of a high-functioning PCMH include collaborating with these various “medical neighbors” to encourage the flow of information across and between clinicians and patients, to include specialists, hospitals, home health, long term care, and other clinical providers. In addition, non-clinical partners like community centers, faith-based organizations, schools, employers, public health agencies, YMCAs, and even Meals on Wheels are a part of the medical neighborhood. Together these organizations can actively promote care coordination, fitness, healthy behaviors, proper nutrition, as well as healthy environments and workplaces.

CHWs can be a major resource for both developing and linking individuals with the various “neighbor organizations” of the medical neighborhood. Linkage with communities, community advocacy, and community capacity building are, of course, traditional key components of the CHW role. During the meeting, there was general recognition of the importance and value of CHWs assisting PCMHs in this area.
- Importance of community-based services: Participants from the Veterans Administration (VA) noted that shifting services to community locations would minimize stigma surrounding VA and mental health services. They underscored the value of bringing veterans into community settings like the YMCA.

- There are a number of community-based participatory approaches (or community organization approaches) for providing preventive services and chronic illness disease management, however, these approaches are often not integrated or linked to clinical care settings in a meaningful and sustainable way. Moreover, there is a historical bias for focusing on medical indicators as measures of health rather than addressing the social and environmental structures that impact good health.

- Another example of a well-known, broadly dispersed organization and key community asset is the neighborhood YMCA. YMCAs provide key community resources across the US with programs in 45 states, including the National Diabetes Prevention Program. YMCAs utilize peer supporters in many of their programs and are ideally positioned to connect individuals and families coming from clinical settings to CHWs.

- To promote population health, CHW programs need to make connections with clinical services and other community sectors, including housing and education.

### Solutions for Connecting with Communities and Community Organizations

<table>
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<tr>
<th>Using “pillar organizations”, like churches, in the community as the gateway to reach those that are underinsured and need to be linked to the community.</th>
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<tr>
<td>Using information technology, such as geomapping and geocoding, to get a better idea of where the hard-to-reach patients are located. This “hot-spotting” technique can help CHWs identify who is most in need of outreach.</td>
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<td>Using a CHW that is co-funded and/or co-located in the clinic and the community setting could be beneficial for helping bridge the clinic to community gap. Another example would be having a CHW be an employee of a hospital but situated in key community settings.</td>
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<td>Developing a 501c3 community-based organization (CBO) to provide peer support services for different health care providers and health service groups that may not have sufficient resources to develop their own programs. An example of this model is included in this report, “My Diabetes Connect” from Birmingham, Alabama.</td>
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<td>Developing sustainable partnerships within the community are critical. Opportunities include resource sharing with departments of public health, area agencies on aging, visiting nurses, etc.</td>
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Behavioral Health

Behavioral health and the psychosocial dimensions of many physical health problems are receiving increased attention. As medical care becomes more complex and we better recognize the dynamic interplay between physical, social and cultural impacts on health, the PCMH works to bring together a team of health professionals to address all of these components. As defined by the National Integration Academy Council and endorsed by the PCPCC:

*Behavioral health is an umbrella term for care that addresses any behavioral problems impacting health, including mental health and substance abuse conditions, stress-linked physical symptoms, patient activation and health behaviors. Behavioral health is the job of all kinds of care settings, and done by clinicians and health coaches of various disciplines or training.*

Most patients with chronic conditions require some type of coaching or guidance to support the behavior change necessary to maintain or improve their quality of life. Conditions such as depression, anxiety, substance abuse, and eating disorders often present in the primary care setting. Additionally, health care costs for patients with conditions such as diabetes and heart disease are much higher when their behavioral health conditions are not adequately addressed and managed.

Integration of behavioral health entails a practice team of primary care and behavioral health clinicians, working together with patients and families. The pertinence of behavioral health to primary care is clear from the frequency of psychosocial and mental health problems:

- 84% of the time, the 14 most common physical complaints have no identifiable organic etiology
- 80% of individuals with a behavioral health disorder will visit a primary care provider at least once a year
- 50% of all behavioral health disorders are treated in primary care
- 20-40% of primary care patients have behavioral health needs
- 48% of the prescriptions for all psychotropic agents are with a non-psychiatric primary care provider

The following unmet needs illustrate how peer support may contribute to behavioral health:

- 67% of individuals with a behavioral health disorder do not get behavioral health treatment
- 30-50% of patients referred to behavioral health from primary care do not make their first appointment
- Two-thirds of primary care physicians reported not being able to access outpatient behavioral health for their patients due to:
  - Shortages of mental health care providers
  - Health plan barriers
  - Lack of coverage or inadequate coverage
Depression goes undetected in more than 50% of primary care patients\textsuperscript{38}.

Only 20-40\% of patients with major depression improve substantially in six months without specialty assistance\textsuperscript{39}.

Not only are peer supporters able to implement many psychological interventions successfully (e.g., cognitive behavioral therapy and problem solving for post-partum depression\textsuperscript{40,41}), but interventions focused on self-management appear to have unanticipated positive benefits on emotional health and well-being.\textsuperscript{42} Additionally, the ability of peer support to reach and engage those with mental health problems who are often difficult to reach\textsuperscript{43} makes CHWs especially well-suited to help increase engagement of individuals in behavioral health services.

Meeting participants identified the following issues regarding peer support in behavioral health:

- Not addressing mental and behavioral health will undermine improving the health status of those with chronic illness. Without addressing behavioral health, the overall health system will struggle to control rising health care costs. Peer supporters can play an important role in bringing mental and behavioral health concerns to the clinical team to be adequately assessed.

- Telemedicine is being used to serve rural and hardly reached populations, for example, providing follow up to patients after discharge from the hospital. The VA has implemented telemedicine pilots for mental health services and early results suggest that a subset of some veterans may “open up faster” with telemedicine. In addition, behavioral health services delivered through telemedicine can be a viable option for those who live in areas with limited mental health service capacity. CHWs can assist with these services and ensure that those who need additional services are referred to their primary care provider or behavioral health specialist.

- CHWs regularly encounter mental and behavioral health issues with patients and families, regardless of whether they have appropriate training. Although substantial research in psychology and human development points to the value of simple acceptance, interest, empathy, and encouragement in reducing mental and emotional distress, CHWs should be adequately trained to offer this kind of peer support.

- CHWs can and do play a key role in identifying and supporting patients with mental and behavioral health issues, often in their role as transition coaches or navigating patients through inpatient care.
Integration of eHealth

We use “eHealth” – for electronic health – to refer to the variety of automated, computer or web-based, mobile health, telemedicine and applications or programs (“apps”) that are emerging to support individuals’ preventive and disease management efforts. eHealth utilities show great promise and effectiveness in expanding the reach and efficiency of peer support and other services. An attractive model is the use of eHealth utilities within CHW or peer support programs to serve a greater number of individuals and increase the efficiency of the peer supporter. Issues to consider as eHealth is integrated into clinical care and peer support include:

- Both eHealth and CHWs may impact the nature of patients’ relationships with the clinical team.
- The roles of peers or CHWs may include providing orientation and assistance in navigating through apps and patient portals. Peers can provide walkthroughs, troubleshooting, and technical assistance for people with lower computer and internet literacy.
- eHealth may even serve as peer support itself – many eHealth programs provide the four key functions of peer support: assistance in daily management, social and emotional support, linkage to clinical and community resources, and ongoing availability of support.

Maintaining “Peerness” and Community Ties

The biomedical culture of health care can be overwhelming and requires a shift in weltanschauung, or world view, in order to address the upstream, social determinants of health. Without such a change, incorporating CHWs into a care team may be adding yet another isolated service. In contrast, CHWs can be used as a catalyst to change the fundamental relationship between clinical care, communities, and patients. CHWs can assist primary care practices to better connect with the groups and communities he/she serves. Though the intention is for CHWs to enhance the clinic-community connection, integrating CHWs into the clinical culture can run the risk of distancing the CHWs from their own community. Along these lines, participants identified several additional pitfalls for CHWs to consider:

- When a health plan or primary care practice employs its own CHWs to serve beneficiaries or patients, care must be taken to ensure that the CHWs continue to first and foremost represent the communities they serve.
- There is a risk of “medicalizing” CHWs if he/she becomes overly focused on solely clinical issues, and no longer offers important psychosocial peer support.
• Although CHWs are a means to enhance the outreach of the PCMH, their primary goal is to provide peer support that promotes the health of the patient. Integration and linkage with the clinical setting are important, but CHWs need to also maintain their ties within the community.

Strategies for Health Care Priorities

How can peer support or CHWs contribute to important challenges faced by the US health care system? Somewhat paradoxically, this entails both the need to reach entire populations and the need to reach and benefit those at highest need, many of whom are underserved.

Population Health
One clinician asked, “What am I providing to everyone who comes to our clinic?” By reflecting the perspectives of communities, peer support can help ensure that the needs of all, not just those who are the sickest or whose needs fit easily into diagnostic categories, are being addressed by health care. One strategy identified by participants was “to let a thousand flowers bloom,” recognizing that there is no one best practice but there are many good practices.

Focus on Those with High Needs
Substantial evidence shows peer support can engage and benefit those whom conventional care too often fails to reach.43,45,46 How to identify those at highest need varies, although the role of technology is critical. EHRs may fall short of the tracking and reporting systems needed to identify the patterns of missed care, clinical values, psychosocial indicators, and social determinants to detect people that are hardly reached. Risk stratification tools within population health management are instrumental in identifying these patients and helping PCMHs target additional resources to those at highest risk.
Financing and Payment Reform

Enthusiastic consensus emerged around new models of financing care that can support the objectives of population level prevention, proactive disease management, and increased quality of life, with resources devoted to peer support. Without payment reform changes, adoption of peer support will remain fragmented and limited within the billable units of fee-for-service.

A transition to value-based, pay-for-performance financing of care will drive the system to prioritize the engagement of populations, prevention of disease, reduction of needs for expensive care, and quality of life, all of which can be enhanced by peer support and person-centered primary care. With payment reform, incentives and programs that promote health will fall into alignment.

Given this broad consensus, participants observed these signs of progress:

- Horizon Blue Cross/Blue Shield of New Jersey is using several strategies to better enable the primary care team to provide supports to patients including:
  - Per member per month (PMPM) payment schemes
  - Paying for care coordination
  - Population care coordinator (nurse) who develops care plans
  - Co-location of behavioral health
  - Group visits taught by professionals
  - Investment in changing financial structures with a shift towards global capitation that will allow for the primary care team to expand its services in ways it deems necessary to support their patient population

- A model developed by faculty at the University of New Mexico, the Southwest Center for Health Innovation, and state and community colleagues rests on a partnership between Medicaid and Medicaid Managed Care Organizations (MCOs). The MCOs reimburse at varying PMPM levels for high-need groups and also the general population. This reimbursement provides funding for diverse CHW programs in both community and clinical settings that, in their aggregate, address the high-need cases and prevent the development of future high-need cases, thereby lowering overall population costs.

- General strategies for achieving progress in these kinds of innovative plans include:
  - Bringing payors together in multi-payor arrangements and using state Medicaid directors as the neutral convener in order to avoid anti-trust issues and promote the health needs of vulnerable populations.
  - Promoting PMPM payment for PCMHs as a funding source for peer support, with the understanding that PMPM payments must be substantial and sustainable in order to support advanced primary care. However, moving toward comprehensive primary care payments that reimburse for care coordination, group visits, telemedicine, and peer supports like CHWs is imperative.
Value-Add of Peer Support

The introductory sections of this report reviewed the evidence for the general effectiveness and value of peer support. Participants also identified a number of ways in which peer support adds value in the context of primary care and the PCMH.

- PCMH and advanced primary care emphasize the whole person, instead of merely a diagnosis or disease, similar to peer support offered through CHWs. Yet there was consensus that the whole person view of clinical care is too often confined to biological and physical health issues. CHWs tend to view the whole person from the perspective of the community surrounding the individual, not the individual in isolation.

- Social determinants of health have not historically been captured in patient records/EHR/registries, nor are they sufficiently encountered in a whole person approach focused on the individual:
  - The focus of many clinical practices is on the illness or health condition rather than the whole person, often due to time constraints associated with our volume-driven fee-for-service payment model.
  - The perspective of the CHW is helpful in increasing attention to the social determinants that impact a person’s health.
  - CHWs play an integral role in helping the primary care team understand what the patient is experiencing outside of the clinic walls that affects the health of the individual, and the community.
  - CHWs often have more time than clinical staff to develop a relationship with the patient, especially within the context of their community.

- A strength of CHWs is their ability to identify the need for and facilitate linkages of patients and their families with social services and other services within the community to address social determinants. This is often not a strength or role of other members on the primary care team.

- Putting into practice several of these strengths, CHWs might contribute to a person’s health by providing specific services such as helping patients and their families to complete advanced care plans, end-of-life plans, etc.
Success Factors

Selecting good CHWs and enhancing their natural abilities through training is a key success factor for peer support programs. Some commonly agreed upon qualities of good CHWs are shown on the right.

At the program level, attendees identified the following success factors:

- Communicate the roles of CHWs relative to the clinical team.
- Provide ongoing training, supervision, and back-up.
- The training and supervising needs of CHWs vary, depending on the intensity and types of roles that CHWs are expected to perform.

Opportunities

Over the course of the meeting, a number of opportunities were identified for expanding peer support programs and innovations.

- CHWs are increasingly utilized to engage patients and their families in palliative care discussions to help address this gap in care. Minority populations are less likely to receive this type of assistance, presenting an opportunity for CHWs to educate families and communities on the benefits and options for palliative care.

- CHWs can provide important support for families and caregivers. As our population ages and with the retirement of the baby boomers, there is an increasing need for peer support for patients as well as families and caregivers who are taking care of the frail and elderly.

Many public sector programs, such as Medicaid, present new opportunities for training and employing CHWs. In order to take advantage of these and other opportunities, there was recognition of the need for greater sharing of tools and resources for program development and quality improvement across states. Websites of NCLR, Peers for Progress, and several groups represented at the meeting include numerous tools for developing and improving the quality of peer support programs. The PCPCC has numerous resources that address the PCMH and medical neighborhood, integration of behavioral health, and other related issues (see Appendix).
THE VISION: A CATALYST FOR HEALTH CARE TRANSFORMATION

For the bulk of the conference, discussions focused around the ten model programs and the issues that arose through those case studies. However, discussion at the tail end encouraged us to think more broadly about person-centered primary care, the PCMH, and peer support; not just as interventions or quality improvement measures, but also as catalysts for health care transformation. How might these models serve as a blueprint for rethinking health care?

Holistic, preventive, community-facing, team-based care with the patient and his/her family and caretakers at the center, and the four key functions of peer support (assistance in daily management, social and emotional support, linkage to care and resources, ongoing availability of support) – these can be applied across all of prevention and health care delivery. What if every point of contact with the health care system, from making an appointment to hospice care, incorporated the perspectives and practices of person-centered primary care and peer support? How would that improve the health and lives of patients and families and make the system more efficient, manageable, and affordable?

The idea of integrating peer support and CHWs with the clinical team is still short of the critical mass necessary for wide acceptance and many programs are strained for recognition and resources. We need strategies for promoting CHWs as viable members of the health care team in order to provide social support for people who want and need this type of care. How can we change the system to sustain this type of work and how do we move this conversation from the periphery to the mainstream? As we realize the value of patient choice and providing a spectrum of care options, it’s clear that peer-to-peer support is sorely missing from our existing health care system and needs to be a pillar of primary care.

Instead of viewing peer support and CHWs as an add-on to health care and trying to roll their services into existing protocols and payment structures, we should be asking how we can change health care to be more attuned to peer-to-peer support. As “disruptive innovations,” the potential of peer support is far greater than incremental improvements, but holds the promise of transforming primary care and community health. When care is more effective and humanizing, when relationships between communities and clinical care are strengthened, and when people are seen as more than just patients, we’ll be one step closer to achieving the triple aim of lowering costs, improving care quality, and improving population outcomes.

Although this conference was not intended to generate policy recommendations, participants acknowledged the number of workforce standards and other policy considerations for CHWs that are being debated and implemented at the state and regional levels in this constantly evolving field. A recent Institute of Medicine discussion paper outlines the barriers that have stood in the way of fully scaling up CHW interventions and points to steps forward. We hope that these important policy discussions will be informed by these conference proceedings and the case studies outlined below.
MODEL PROGRAMS

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Alivio Medical Center’s ¡Mi Salud es Primero!
My Health Comes First

SETTING

Alivio Medical Center (Alivio) is a network of three (3) free-standing community health centers and three (3) school-based health centers. Alivio serves uninsured, working poor families and individuals who have historically not accessed healthcare due to language and cultural barriers, intimidation of traditional healthcare institutions, little awareness of available resources and fear of immigration status. Alivio’s bilingual, bicultural providers serve all patients regardless of their ability to pay. Alivio is a federally qualified health center (FQHC) and receives federal funds from the Health Resources and Services Administration. Alivio serves nine Chicago community areas as well as the suburban communities of Berwyn and Cicero. In 2014, Alivio served 23,302 patients and rendered 73,673 patient visits.

PEER SUPPORT PROGRAM

Mi Salud es Primero (MSP) is a bilingual and culturally appropriate diabetes self-management education and support program offered by Community Health Workers/promotoras, whom at Alivio are referred to as Compañeros en Salud (CES). A team of nine CES worked closely with patients and their families to:

• Encourage and facilitate access to regular clinical care
• Deliver diabetes self-management education and support (DSME/S)
• Assist patients with implementation of diabetes care plans, and
• Provide proactive, ongoing follow-up and support

The CES utilized goal setting and motivational interviewing techniques to provide practical, motivational, and emotional support. The program provided free glucometers and discount cards for testing strips and linked patients to needed community resources such as affordable and transitional housing, energy assistance programs, child care, food pantries, legal/immigration services, domestic violence counseling, physical activity programs, mental health/substance abuse providers and dentistry services.

Patient contacts were primarily 1:1 and by phone according to a tiered protocol that required more frequent (biweekly) or not so frequent (monthly and quarterly) contacts depending on patient needs. Patients also had the option to meet with a CES at the clinic before or after their appointment. The CES encouraged patients to join support group sessions to help with medication adherence, reinforce nutrition information, and discuss concerns and barriers to improve self-management. Support groups were facilitated by two CES with backup assistance provided by the Program Manager.
HOW PEER SUPPORT IS INTEGRATED WITH CLINICAL TEAMS

At program initiation, the CES were provided work space at each of the three community clinics in addition to their office space adjacent to the Western clinic. Each CES spent one day a week working in the clinic-based space. The presence of the CES in the clinical area was an important initial step towards their integration into a multi-disciplinary team that proactively work together to ensure more efficient and effective patient care. The CES worked closely with primary care providers, nurses and medical assistants to enhance patient care. Several examples include:

- Face-to-face meetings with a member of the care team before or after a patient appointment
- Providers could request the “CES on duty” to meet with a patient who was newly diagnosed or who required additional education or resources
- Providers could refer a patient to the CES via a referral form in the electronic health record system (EHR)

The CES completed contact note forms for each patient encounter and entered them into a database. The project team used the database to create a report to assist with program tracking and ongoing monitoring. Each month, the Project Manager and Project Coordinator reviewed the database report and discussed improvements with the CES. The report was also shared with Alivio administration and providers during monthly meetings.

OUTCOMES

Patient Engagement with CES
- CES reached 3428 (90%) of all adult patients with diabetes (3818)
- 83% of 471 High Need patients engaged with program
- 74% of 3347 Regular Care patients engaged

Clinical Outcomes
- HbA1c declined from 8.26 to 8.10% (p<0.001) across the entire population between prior to program initiation and most recent clinical test
- HbA1c declined from 9.38 to 9.12% (p < 0.01) in the High Need group
- High Need patients with moderate HbA1c control (≤8%) increased from 20% to 27%

DISSEMINATION AND SUSTAINABILITY

New Healthcare Model
Alivio’s Morgan Clinic received PCMH Level 1 recognition from NCQA in May 2014, thus formalizing a new model of care at Alivio. The MSP program was instrumental in Alivio receiving NCQA recognition. The CES work involving diabetes self-management education and support, along with protocols and documentation of such, allowed Alivio to fulfill a number of requirements for PCMH designation.

Continuity of Care
Several CES have been hired into new Care Coordinator positions at Alivio. This is, in large part, because of the experience and training they received with MSP.
There were several factors that challenged organizational changes introduced by the MSP program.

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Facilitators</th>
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<tbody>
<tr>
<td><strong>Resistance</strong> – Healthcare providers were initially reluctant to integrate peer support/CES and primary care services. The CES were thought of as performing community outreach services exclusively.</td>
<td><strong>Supervision and training</strong> – Careful attention was placed on the management and supervision of the CES. Providers were involved in the development of the peer support program and key aspects of their training, which helped providers gain a deeper understanding of the role peer support could play in improving patient care.</td>
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<td><strong>Communication</strong> – Lack of communication about the MSP program and confusion over the role of the CES contributed to the CES being viewed as insignificant and their services as not sufficiently valuable to patient care.</td>
<td><strong>Champions</strong> – The Project Manager identified and partnered with several champions in the clinic to help promote the program and ensure frequent and ongoing communication about the program. With increased communication with the staff at all levels, the CES gained the support of the primary care providers. The providers now seek the CES to provide diabetes education and support.</td>
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<td><strong>Changes</strong> – During program implementation, there were several organizational changes occurring simultaneously which included EHR implementation, patient-centered medical home (PCMH) application, DPI (a process improvement project), and in the last year of the program, change in leadership.</td>
<td><strong>Program Outcomes</strong> – Within a few months of program implementation, Alivio began to see increased patient engagement in health care services and improvements in patient satisfaction. This helped Alivio’s leadership, providers and staff understand the value of peer support and the complementarity of the role of the CES as part of the extended care team.</td>
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<td><strong>Socio-economic status of patients</strong> – Alivio’s patients are predominantly Hispanic (Mexican); working poor, undocumented, and uninsured. They are a transient population that often unreached by the health care system.</td>
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PEER SUPPORT PROGRAM

Cooper Green patients with a diagnosis of diabetes and a visit sometime in the previous year were invited to attend a community-based diabetes education session. Patients who attended the session and had uncontrolled diabetes (A1c > 7.5) were invited to participate in the program. Half of those who agreed to participate in the study were paired with a CHW. Patients met with their CHW for an initial face-to-face visit. Thereafter, patients worked with a CHW to identify behavioral goals and provided information on progress towards their goal on a weekly (8 weeks), biweekly (months 3&4) and monthly (months 5&6) basis. Information was tracked using the mHealth tool developed specifically for this project; progress and any questions were communicated back to the healthcare team. This communication helped CHWs link their clients back to clinical services.

HOW PEER SUPPORT IS INTEGRATED WITH CLINICAL TEAMS

CHWs services were integrated into clinical care in two ways. First, CHWs attended weekly face-to-face meetings with members of the clinical care team, including the nurse manager/certified diabetes educator, nutritionist, pharmacist and physician. Individual cases were discussed as well as barriers/issues common to multiple patients. The team also discussed strategies to enhance communication amongst team members, particularly as they related to the mHealth tool developed for this project.

SETTING AND PARTNERS

This project leveraged an existing partnership among three organizations, namely the University of Alabama Birmingham, Cooper Green Mercy Health System (CGHS), and Congregations for Public Health. CGHS is a public safety net hospital that provides care for residents of Jefferson County (Birmingham) using a sliding scale based on income level. The year before our project began, 6,938 diabetic patients made 14,965 ambulatory visits to CGHS. In response to the increasing burden of diabetes and its complications, CGHS had placed special emphasis on developing enhanced education services to support its patient base with diabetes. Unfortunately, these services were underutilized. An assessment conducted as part of our formative work revealed that among the nearly 700 patients referred for diabetes education over one year, only 19% completed the 2-session course, and many never attended a single session. Our goal was to improve diabetes outcomes through a combination of peer support and better linkages vital education, clinical, and community services.

Congregations for Public Health (CPH) is a 501(c)3 organization whose mission is to reach out to surrounding neighborhoods with services to promote health equity. CPH consists of a network of African American churches located in some of Birmingham’s oldest and poorest neighborhoods. (Figure 1) Poverty in these CPH neighborhoods ranges from 44.2% to 68.8%, some of the direst poverty in the state and the nation. A defined geographic radius of 1 mile surrounding each church includes over 118,000 low income African Americans, representing approximately 60% of Birmingham’s African American population. CPH builds on the existing experience of their own brand of community health workers (CHWs), affectionately nicknamed NOSeys (Neighborhood Outreach Specialists). The NOSeys manage operations, communications, program activities, and community outreach within each church’s one-mile radius. For over a decade, they have been working in these neighborhoods to promote health and reduce disparities. For this project, we partnered with CPH to create a peer support network for Cooper Green patients living within a 5-mile radius of each CPH congregation.

*This project was funded by a grant from the American Diabetes Association.*
The second means of integration occurred via the mHealth tool itself. We used an iterative approach to develop web app that facilitated the effective and secure exchange of information between CHWs and the primary care team. CHWs could send questions or forward patient concerns to a member of the health care team. Response time was typically 24-48 hours. In turn, health care providers could ask CHW to check on specific issues particularly after visits etc.

**DISSEMINATION AND SUSTAINABILITY**

Project results have been disseminated locally through community town hall meetings and also in the form of presentations for UAB Medicine and Pediatric Grand Rounds, the UAB School of Public Health, and the Minority Health and Health Disparities Research Center. Results were presented in November 2014 at the American Public Health Association's annual meeting. A manuscript describing the development and utilization of the mHealth communication and tracking tool is being developed for the Journal of Ambulatory Care Management.

To sustain the mechanism for provision of peer support services we have formed a 501c3, Connection Health. (http://www.connectionhealth.org) Our hope is to sustain these activities through a combination of grants and contracts for services. Our goal is to engage patients and provide support for their self-management and also to engage their primary care provider or another member of the Medical Home in order to close the loop. We have already received our first contract from the UAB Health System to provide CHW services for individuals with diabetes who frequently utilize the Emergency Room for care. Moving forward, we envision our non-profit organization as an innovative means of providing medical homes with the capacity to provide peer support to patients in their own communities.
There are a number of peer to peer support programs at CHA, which all have a common theme: people with lived experience supporting other people (patients) in partnership with health care professionals. These range from frontline medical assistants from the community as health coaches to community health workers to mental health care partners to Victims of Violence support groups to suboxone treatment groups and CHAMPIONs diabetes groups.

1) Peer to peer orientation programs – From new patient orientations in primary care to joint replacement orientation groups, these groups bring people who are going through a common experience to learn together with the entire team present. In the case of joint replacements, patients then go through surgery and rehab at about the same time, leading to peer to peer support over an entire experience.

2) Peer to peer support groups – Examples include Victims of Violence and other groups which help people recover from trauma. These include activities such as community gardening and art as well as support.

3) Peer to peer treatment groups – using a modified shared medical appointment model, these kinds of groups like the CHAMPIONs diabetes groups and suboxone treatment groups are designed and facilitated with people with lived experience.

4) Peer team roles:

   a. Community health workers – help support patients with complex health needs with coaching and support and provide support to all patients for basic resources.

   b. Mental health care partners – people who are from the community who help to develop coping, resilience and life skills in patients with mental health issues that are amenable to a support approach.

   c. Medical assistants as health coaches – hired from the community, the role of the medical assistant has been upskilled to support patients in coaching around health issues, identifying health needs etc. We have found that patients are much more likely to disclose to a medical assistant about mental health and substance abuse issues; medical assistants who have smoked or used a substance are very effective at coaching patients to stop smoking or do SBIRT. Medical assistants support patients in their medical needs, answer questions that patients have, etc.
d. Patient navigators – peers who have been trained to support people to navigate through the health system for high volume conditions for which there may be simple barriers or a lot of support needed, such as for colorectal cancer screening.

e. Volunteer health advisers – hundreds of people from the community who are trained in a particular area of peer support who help to create programs in the community.

HOW PEER SUPPORT IS INTEGRATED WITH CLINICAL TEAMS

Peer support is fully integrated within the team as much as possible (medical assistants as health coaches). In addition, a care team together runs treatment groups (like suboxone or diabetes or new patient groups). The core care team refers to additional members of the team, such as to care partners on the mental health team or to community health workers on the complex care management team in real time and the patient is often seen in real time with a warm handoff. The core care team meets weekly; the members of the complex care management team and the mental health team join these meetings weekly (complex care) or monthly (mental health) to discuss patients who are not thriving. Patient navigators, volunteer health advisers are accessed through referrals. Everyone documents in a common EMR and notes are visible. A common care plan governs the interactions of all team members.

DISSEMINATION AND SUSTAINABILITY

We have achieved spread within our system; this does require training and administrative infrastructure as well as champions who know how to do this kind of work. A high functioning team structure is key. In general, however, these groups have sustained themselves easily because they have added so much joy to the health care workforce.

OUTCOMES

- All groups have high satisfaction levels for patients and providers.

- For patients attending CHAMPIONs Diabetes groups two times in a year, the impact on A1C, an outcome measure for diabetes, is equivalent to a common diabetes medication. There are improvements in process measures, as well (see poster).

- For suboxone addiction treatment groups, 2/3 of patients are retained in treatment at 2 years and 60% of them are employed, in school or reconnected with loved ones, with substantially lower medical cost.

- For clinics with new patient orientation groups, the no show rate decreased by 50%.

- For joint replacement orientation groups, patient experience a more coherent experience (one stop shopping), an integrated care plan, and peer to peer support from before surgery through the rehab period with fewer complications and earlier mobilization.

- Patient navigators have helped to close the disparity gap for patients with colorectal screening (published).
PEER SUPPORT PROGRAM

1. Health coaches “prep the visit” by calling Veterans the day before provider visits to invite Veterans to stay and work on a PHP. They give the LPN the PHP’s in the morning, each labelled with the Veterans who agreed and the time of the visit.

2. We identified tracking software called “Task Tracker” to track when to call Veterans to follow-up on their efforts.

3. We drafted guidelines for how often to follow-up with Veterans based on their action plan, the urgency or distress they expressed, and whether they planned to invest in a more intensive program or not.

4. We created a staff guide of VA and community resources for each area of the PHP. We also created a site-specific list of all self-management programs available at the hospital and each outpatient clinic.

5. We’ve found that multiple avenues leading to PHP’s and health behavior change may be the most effective strategy. We’ve included PHP’s in the last session of CDSMP workshops and in the first session of weight management classes.

6. Scott has coordinated a PHP shared medical appointment with 1 of the PHP pilot teams with great success. There’s a possibility of including health coaching support in population health groups for Oral Hygiene, Cognitive Behavior Therapy for Insomnia, and New Patient Orientation.

SETTING

VA Central Office initiated the patient-centered medical home journey in 2010, establishing Patient Aligned Care Teams (PACT) in Primary Care. One component of PACT is patient-driven care and a general concept of whole person care. PACT teams received training in health coaching and Motivational Interviewing.

In 2013, the Chief of Primary Care, Chief Nurse of Primary Care, and Dr. Altum, a clinical psychologist, applied for and received a VA sponsored grant from the Office of Patient-Centered Care and Cultural Transformation (OPPC-CT) to implement a Personalized Health Plan (PHP) pilot. Dr. Altum worked with 3 PACT teams. Two positive outcomes from the project were (1) the development of a feasible tool that combines the best of two VA National tools (“My Health Choices” from the National Center for Prevention [NCP] and the “Personal Health Inventory” [OPPC-CT]), and (2) the discovery of an experiential training that portrays the values and spirit of PHP-type communication, called the Therapeutic Relationship Workshop.

Another significant realization from the PHP pilot was that PACT teams felt challenged to incorporate the administration and follow-up support for the PHP into their visits. Most PHP’s took 15-45 minutes to complete. The Ohio Network of VA facilities (VISN 10 Regional Office) offered funding specifically for Peer Health Coaches at each facility to support PHP implementation. At the Cincinnati VA, Scott Page, a Peer Specialist with 5 years of experience in a mental health day treatment program and a residential substance dependence program, was selected. Scott came well prepared with training as a Certified Peer Specialist and had other trainings including Whole Health Action Management (WHAM), Motivational Interviewing, Mayo Clinic Tobacco Treatment and Stanford Chronic Disease Self-Management Program (CDSMP).

Through Scott’s early efforts to partner with the PACT teams, we identified some important strategies and concerns (next page).
Important Strategies and Concerns

The clinical staff was uncertain and leery about what a peer might do to help Veterans with health concerns. They could only conceptualize clinical interventions and education and peers would not be qualified to provide these interventions.

In a busy clinic with 10 providers, it was helpful to focus on only 1-3 teams to build a collaborative effort.

Teams found it difficult to initiate the PHP with Veterans on their own, so the warm hand-offs were slow to come.

Sometimes the best team building happens in the non-work-related conversations that happen in the lunch room.

It was challenging to track when and how often to follow-up with Veterans who had a PHP.

If Veterans had some advanced notice about the availability of the health coach, they were more open to staying after the provider visit to complete the PHP.

Veterans seem most open to a more intensive resource when several options are presented. It was challenging for staff and peer health coaches to learn and share all the many options.

It's best if we don't try to predict who might be open to doing a PHP because we were often wrong.

Once Veterans become engaged in a more intensive health improvement program, they build momentum and confidence and are eager to take on the next challenge.

We used these discoveries to shape our integration efforts. In the meantime, Dr. Altum received a VA sponsored grant partnering with AmeriCorps and the local Council on Aging in Southwestern Ohio. The grant provided 8 Veterans or family members who serve as peer health promoters. The grant has 3 target outcomes:

1. Serve 200 Veterans and family members in the Stanford Chronic Disease Self-Management Program
2. Serve 100 Veterans and family members in health coaching
3. Assist 50 Veterans and family members with referrals to VA and community resources

To address the health coaching goal, 1 full-time and 1 half-time AmeriCorps member are dedicated to health coaching. In addition to training in health coaching, motivational interviewing, and Stanford CDSMP, they also read the book, “Changing for Good” by Prochaska, Norcross, and DiClemente. They later attended the 2 day Therapeutic Relationship Training with PACT teams as well. They shadowed Scott or Dr. Altum to observe PHP visits, then demonstrated PHP’s while they were observed. Once they felt confident and demonstrated competence, they started seeing Veterans independently. The orientation period lasted about 2 months.
**HOW PEER SUPPORT IS INTEGRATED WITH CLINICAL TEAMS**

From our lessons learned, we took several steps to improve coordination with clinical teams.

1. Once the health coaches were trained, we gave a presentation at the Primary Care staff meeting that outlined what peer health coaches do. This included a slide show reviewing the book, “Changing for Good” and a skit that demonstrated the stages of change and the health coaches’ role in conjunction with the PACT Team and follow-up support of the Veteran. It also demonstrated the peer sharing their story and recommending VA self-management programs. PACT Staff were given a handout with a script for introducing health coaches and how to contact the health coaches.

2. Health coaches were assigned to 1-3 teams. They were encouraged to attend daily huddles and weekly team meetings to help connect with the team.

3. We created a simple template for the PHP to document the action plan in the Veteran’s words. The template is connected to a database that pulls A1c, blood pressure, LDL, BMI, and tobacco status from the medical record every 6 months.

**DISSEMINATION AND SUSTAINABILITY**

Next Steps to move health coaching efforts forward:

1. With regard to mentoring and supporting health coaches, our next step is to set-up audio-taped health coaching sessions for group supervision.

2. We also continue to formulate our guidelines for frequency of contacts and criteria for “graduating” or discontinuing.

3. We are in the process of getting set-up to use secure messaging (email) as a means for follow-up support.

4. We continue to brainstorm resource tools that will most effectively inform Veterans and staff about all the VA and community resources to choose from to support PHPs.

5. We are planning a new strategy to welcome new patients to the VA and to inform them about the patient centered medical home approach, personalized health plans, and VA services including health coaching.

Next Steps to spread Personalized Health Plans among VA staff:

1. Meeting with specialty services (Clinical Pharmacy, Home Telehealth, Specialty Clinics) to share about PHP and develop disease-specific PHPs.

2. Meet with all services across the hospital to help them identify Vets who have PHP’s, to reference them, check on progress when Vets are seen, and note progress in the record.

3. Use aggregated PHP clinical outcomes to entice staff to use PHP template and engage Vets in PHP’s.
PEER SUPPORT PROGRAM

Clinicas CHWs are usually employed part-time and paid a living wage with benefits. They are supervised by a full-time Coordinator and Director of Programs. They offer the peer support services via telephone calls, home visits, clinic visits, group presentations and health fairs. The modality in which the services are offered will depend on several factors: health issue, patient prior knowledge or needs, and patient preference. The modality may also be determined by special projects or curricula being used by the clinic.

HOW PEER SUPPORT IS INTEGRATED WITH CLINICAL TEAMS

The primary way in which peer support services are linked with our primary care, chronic care and/or patient-centered medical home model is through the provider referral system. Basically, a primary or chronic care health care provider will identify a patient who needs services and refer them to the CHWs. The referral is made through Clinicas electronic health record system. The peer support services coordinator also known as the CHW Coordinator will get the referral then assign the patient to a CHW specially trained to address the patient’s need. The CHW will make the first contact within one month of getting the assignment and offer the peer support as needed. Since most of the referrals are for diabetes, asthma or obesity, these usually involve at least 4 home visits using standard curricula.

The CHW will document each contact within one business day into the clinic’s electronic health record system. The CHW will document the date, time and duration of the contact, the topics covered, the patient’s disposition or engagement, the patient’s demonstrated skills gained or enhanced, any referrals made and anything else the provider may need to know. If a certain patient situation is especially sensitive, either the provider or the CHW may seek each other out to discuss it in person.
The primary means of communication between the health care team and the CHWs is through the electronic health record system. The primary care providers and CHWs meet at least once a year to review progress and lessons learned. The CHW Coordinator and Director of Programs serve as intermediaries as they meet with the CHWs on a bi-monthly basis and with the primary care providers on a quarterly basis.

A secondary way in which peer support services are integrated into primary care is by having primary care providers and CHWs train each other at least once a year and more often if needed. In other words, the CHWs, CHW Coordinator and Director of Programs will train providers on the cultural norms, needs and assets of the community to help them stay culturally competent while providers will train or approve the training of CHWs in the key health issues being addressed, the most common treatments and the importance of treatment adherence. This helps ensure that each set of team members knows each other and knows the work that the other is doing, which in turn builds trust.

The reasons for the creation of this type of integration or linkage were because of time and space challenges. Each staff member is usually not available consistently for daily or even weekly huddles where the entire care team (provider, patient, nurse, medical assistants, CHW, etc.) can discuss patient cases and decide together on the best course of action. There also is not enough office or meeting space for everyone to see a patient as a team on-site. Plus, the Clinicas management team found that patients respond better to self-management education done while they are at home. Whether it is done by phone or in-person, they can more readily associate guidance and instructions with their home environment or relationships if they are at home. Additionally, the clinic staff get a better understanding of the patient’s home environment and relationships if a home visit is done or a phone call is made in the evening.

OUTCOMES

Benefits for patients and their families from the integration of peer support or CHWs with clinical services were observed. Pre-and-post studies and systematic cross-sectional evaluations indicated statistically significant improvements in patient A1c levels, cholesterol levels, blood pressures, health behaviors such as eating more fruits and vegetables and drinking less sugary beverages, teen pregnancy rates and enrollment in health coverage programs. Patients and their families also feel empowered to advocate for themselves in the clinical appointment, seek the support they need from others and offer support and information to others.

Benefits for Clinicas as an organization were also reported. Integrating peer support and CHWs has helped the clinic prove that Clinicas team is patient-centered and aiming to meet patients where they are, in the language that they prefer and in a caring and respectful manner. Most patients with a chronic condition spend approximately 1 hour with a provider per year (during 4, 15 minute visits). By offering the instrumental and emotional support services of trained CHWs to the most needy and/or health challenged patients, Clinicas team is able to offer as much as 16 hours of additional care. That is what it takes for an organization like Clinicas to make a lasting and meaningful impact on a patient population.
DISSEMINATION AND SUSTAINABILITY

Clinicas de Salud del Pueblo has had the honor and privilege of sharing the methods, results and lessons learned from their peer support and integration work with others via various publications and presentations. The program has published in the *Journal of Health Communication, Salud Pública de México, Cancer Disparities: Causes and Evidence-Based Solutions, The Diabetes Educator and Ethnic and Racial Studies*. The Clinicas team members have presented at the Peers for Progress annual meetings in San Francisco, Kuala Lumpur and Cambridge as well as at the National Council of La Raza annual conference, the California Wellness Foundation Border Health and Teen Pregnancy Prevention roundtables, the Centers for Disease Control and Prevention-immunization conferences, and the American Public Health Association annual meetings. Lastly, Clinicas has made sure that they share their work with local communities via presentations at local HIV, Immunization and migrant health center update meetings and self-hosted Community Forums.

Clinicas’ main avenues for sustainability are grant writing and collaborations. The team constantly submits grants and collaborates with local, regional, state and national partners to secure the funds and materials they need to sustain peer support services. They have recently also been active in advocating for reimbursement programs for community health worker-facilitated education, where insurance companies or federal health coverage programs may one day reimburse for the education, especially home-based education, provided by CHWs.
East Carolina University’s COMRADE Trial

SETTING

While diabetes mellitus occurs in 25.8 million people in the United States and the prevalence of the disease continues to increase, the highest prevalence rates are seen in the southeastern United States (the “diabetes belt”) and specifically in communities with large minority populations and limited socioeconomic status. 2011 data from the NC State Center for Health Statistics shows profound geographic and racial disparities: whites (both genders) with diabetes had an age-adjusted death rate of 17.5/100,000 compared to 44.8/100,000 for African Americans (disparity rate ratio = 2.6). The Behavioral Risk Factor Surveillance System (BRFSS) data reveals that the prevalence of diabetes in eastern NC (ENC) is higher than in the state overall (11.3% vs. 9.8% respectively), and is higher in African Americans than in whites (16.7% vs. 10.2%). Those most at risk are rural, poor, and minority diabetics.

While there have been many initiatives to improve diabetes control, a major limiting factor has been the co-morbid depression/distress in this population, which is often unidentified and/or untreated. The rate of major depression in patients with Type 2 diabetes mellitus (T2DM) is twice as high as those without T2DM and depression is associated with poorer adherence to treatment regimen, worse glycemic control, and neuroendocrine changes, as well as a significantly higher risk of severe hypoglycemic episodes resulting in emergency department visit or hospitalization. However, with intervention focused on the distress and depression, along with other support, patients show significant improvements in physical and mental health across time. Based on local data from medical records and from a recently completed project in the same region (EMPOWER) we estimate that at least 50% of diabetic patients in our region have co-morbid depression or distress that limits improvement in health outcomes.

The Collaborative Care Management for Distress and Depression in Rural Diabetes (COMRADE) is a randomized clinical trial being conducted in our department of Family Medicine primary care clinic at East Carolina University, nationally recognized as a community engaged university. In 2014, 25,268 patients were seen in our Family Medicine clinic at ECU. Approximately 4,254 of our patients have diabetes; approximately 63% of those are African American. Of those patients, 3,524 of those patients have co-morbid diabetes and hypertension (79%). But perhaps most striking is the 785 Emergency Room admissions from our Diabetic patients in the first three months of this year alone.

PEER SUPPORT PROGRAM

Our EMPOWER study was a randomized clinical trial examining the effectiveness of a CHW intervention in which 6 CHW’s delivered Diabetes Self-Care management in a phone-based program across 1 year with 100 women in the intervention arm. Overall, across 12 months, women decreased their HbA1c by 0.3; however, those that were receiving only oral medications (i.e., not on insulin) saw a much larger reduction in A1c from the intervention of 0.8. Patient feedback from that study was threefold.

First, they loved their interactions with their CHW and felt that they benefited greatly from their work with them. Second, they wished they would have also had a group-support component rather than all one-on-one. And third, they wished that this was integrated more with their medical care. CHW feedback mimicked similar feelings but also noted that they did not feel competent to treat depression/ distress in patients to the level needed. Therefore, we developed COMRADE with all of these factors in mind. COMRADE is an integrated behavioral health and medical/pharmacologic intervention focused on 1) individual therapy with a care provider receiving either small changes, problem-solving therapy, or cognitive behavioral therapy, based on their level of distress/depression provided by trained nursing and mental health professionals, 2) monthly group-based support meetings and associated outreach led by our CHW, and 3) coordinating medical/pharmacologic care with the PCP.
The CHW alongside our social work co-investigator coordinate monthly group meetings including the topics: a) group engagement, b) social support, c) healthy eating, and d) physical activity. The groups are held in the daytime and evenings in our family medicine center and are focused on these topics within the framework for CHW’s strengths and focus of treatment (social and emotional support, ongoing support, linkage to clinical and community resources and assistance in daily management). Following completion of these initial groups the CHW facilitates ongoing monthly support groups, conducts phone-follow-up and support, and can meet with patients needing extra support in community locations or to accompany them to medical visits as needed.

HOW PEER SUPPORT IS INTEGRATED WITH CLINICAL TEAMS

Currently, our CHW is integrated within our clinical team through monthly meetings with our entire treatment team. After each group support meeting, our CHW writes an individual note regarding patient attendance and any issues brought up that need to be followed up on/addressed further. Each year, the CHW will also train our treatment team and all of the primary care providers on the cultural norms, needs and skills that the CHW provides to the patients they are caring for. Also, the medical team will train the CHW yearly on the areas of particular need for both individual and group support that the CHW could provide.

DISSEMINATION AND SUSTAINABILITY

The group has published our methods and findings in several journals, including: Contemporary Clinical Trials, Ethnicity and Disease, Diabetes Care, and the Annals of Pharmacotherapy. We have also presented findings at the annual meetings for American Diabetes Association, Society of Behavioral Medicine, and Bristol Myers Squibb Foundation, and the Center for Diabetes Translational Research at UNC-Chapel Hill. While we plan to continue grant writing for continued funding, we are engaged with local partners regarding business plans as they evolve into accountable care organizations including leveraging resources from improved reimbursement for pay for performance/patient-centered medication home/chronic disease monitoring. Moreover, we have met with our Medicaid leadership, are looking into improving reimbursement from Medicare for CHW services, and are exploring reimbursement for Behavioral Health Services provided incident to a physician visit from co-morbid behavioral problems.
MHP Salud’s Salud y Vida
The Rio Grande Valley
Chronic Care Management Program

SETTING

- Launched in the fall 2014, Salud y Vida (Health and Life) program is a partnership (via a subcontract) between MHP Salud and the University of Texas (UT) at Houston School of Public Health dedicated to improving the health of community members diagnosed with type 2 diabetes. It is made possible by a Section1115 Medicaid waiver.

- The Salud y Vida program transforms the delivery of chronic care management for residents of Texas’ Rio Grande Valley who are either uninsured or covered by Medicaid.

- Its goal is to empower each participant, and their families, to understand their diagnosed chronic condition. The gap from living with uncontrolled diabetes to controlled diabetes is narrowed by providing participant-centered comprehensive care utilizing a multi-disciplinary delivery method and medical treatment coordinated with primary care.

- The Rio Grande Valley Program identifies participants with uncontrolled diabetes, and invites them to participate in a structured multi-disciplinary program to promote control and/or improvement in the participants’ diabetes and overall health status, leading to decreased acute care utilization.

- Through Promotores(as) de Salud, the program offers free services to community members at least 18 years of age with a diagnosis of diabetes type 2 and a HbA1c of at least 8%.

- It focuses on providing coordinated care services to every participant, surrounding the following six pillars of chronic care management (CCM) based on the Wagner model, including (1) Delivery system redesign, (2) Self-management support strategies, (3) Decision support, (4) Information systems, (5) Community linkages, and (6) Health system support.

ROLE OF PEER SUPPORT IN THE RIO GRANDE VALLEY PROGRAM

MHP Salud’s role is to hire and manage promotores(as) specially trained on diabetes self-management to provide participants with health education, navigation, and other related services.

Promotores(as) de Salud work closely with assigned participants to develop an individualized plan of action, identify additional specific behavioral objectives to achieve this goal, and empower participants to choose appropriate healthy habits. In their role, the promotores(as) ensure that every participant has a medical home and actively seeks health care. A range of services may be recommended based on participant needs, including quarterly visits, case management, medical services, behavioral health education, lifestyle changes, medication management, social services, participant advocacy, and connection to ancillary services. In order to improve healthcare access, if it is requested, they can accompany participants to their primary care provider visits. In addition, the promotores(as) also help participants with using glucometer to improve monitoring of their glucose levels and track their progress.

The promotores(as) are also responsible for collecting information on the participants’ chronic care management progress. The information collected will be reviewed by the CCM team to ensure that all participants have access to community resources in order to meet their goal for controlling their diabetes.

The Program offers a follow up for up to 12 months to ensure diabetes remains under control. During the first 6 months, the follow up is most intensive, and includes home visits, diabetes self-management classes and phone calls. A regular routine of follow-up on glucose levels is offered for the duration of the program (12 months).
Peer support and clinical teams are integrated through regular bi-weekly CCM team meetings that include a physician, a pharmacist, CHW supervisors and transition specialist from team organizations. During the meetings, the team discusses participant cases that need attention, such as a rise of 1 point in A1c level. The team will review medications, situations at home, stress, and work based on information provided by CHWs, and will then suggest action items for the CHW to implement and follow up on. Referral information is made through a system named Chronicle diabetes (ScoreMD) where partner organizations are alerted to cases that are “red flagged” for attention. MHP Salud and UT Houston School of Public Health each have a team of CHWs and a coordinator for the CHWs, who is an active participant in the CCM meetings and other initiatives project-wide. The role of the CHW is to gain a “from the ground” perspective on the barriers or challenges a participant faces in controlling their diabetes, and then reports through ScoreMD and her/his supervisor. This information is communicated and received by clinical leaders for discussion during CCM team meetings.
ORGANIZATIONAL ISSUES

The Salud y Vida Chronic Care Management team consists of representatives from partner organizations – representing the clinic, academic, and nonprofit sectors – working together to provide comprehensive services for participants enrolled in the program. The members of the team have diverse health care service orientation to more effectively address the care plan for achieving HbA1c under 8.0%.

Challenges
The barriers the Salud y Vida CCM team have encountered in the integration or linkage of peer support services with primary care have stemmed mostly from economic origins, such as the affordability of medications. Participants may skip doses of their medications to make it “stretch”, or miss appointments with their primary care physician because they do not have transportation or can’t afford to miss work to visit the doctor.

Solutions
During DSME classes and home visits, the *promotoras* have helped address these challenges by emphasizing with participants the importance of taking medications correctly and the risks of the non-adherence. One session of DSME series also focuses on medication, what they are for, and the importance of not skipping or reducing doses.

As part of Salud y Vida’s “Raise the Floor” initiative, CCM members organized a biannual meeting to brainstorm improvements for the program. One improvement to be implemented is peer support groups or meetings where a *promotora* will assist in facilitating at the beginning, and then let the group take control over meeting days and time. The purpose of the support groups is to have participants plan their own lifestyle changes and stick with the changes they worked so hard to implement. The goal is to have participants help and support each other in the lifestyle changes, which are key to maintaining diabetes under control.
Rhode Island’s Pediatric Practice Enhancement Program (PPEP)

SETTING

- Pediatric Practice Enhancement Project (PPEP) was developed in 2003 by Rhode Island Department of Health, Office of Special Health Care Needs (OSHCN) in collaboration with Medicaid State Agency, the American Academy of Pediatrics (RI), and Rhode Island Parent Information Network.

- PPEP assists and supports pediatric primary and specialty care practices in providing a “medical home” for Children and Youth with Special Health Care Needs (CYSHCN) and their families to improve short and long-term health outcomes.

- PPEP aims to enhance provision of coordinated/comprehensive care, recognize families as critical decision makers, and increase family understanding of the health care delivery system/community resource access.

- The integration of peer support through Family Resource Specialists fills gaps in the medical home that were previously cited by providers (e.g., lack of time to address non-clinical issues, program eligibility, knowledge about community resources).

ROLE OF PEER SUPPORT IN PPEP

The Family Resource Specialist is a parent or family member that has navigated the system of care for their child/youth with special health care needs and assists families going through similar situations. Linking families to pediatric services and community resources, the Family Resource Specialist assists physicians and families in accessing specialty services and identifies systems barriers to coordinated care. The Family Resource Specialist provides non-clinical support and assistance to the nurse care manager or the primary care provider. Through a subcontract with HEALTH, the Rhode Island Parent Information Network (RIPIN), a non-profit family advocacy organization, conducts the recruitment, hiring, training and supervision of Family Resource Specialists.

HOW PEER SUPPORT IS INTEGRATED WITH CLINICAL TEAMS

Although services provided by the Family Resource Specialist are non-clinical in nature, they provide the link between the clinical component of the practice and community services including those that are clinical (i.e., evaluations, home/school –based treatment, therapy services, etc.). The Family Resource Specialists can also assist practices in expediting clinical services through their peer network located in clinical sites in the community. Many clinical services require eligibility guideline compliance for insurance coverage which Family Resource Specialist have extensive knowledge regarding.
Since Family Resource Specialists are placed on site in the practices, physicians/clinicians can directly refer to the Family Resource Specialists to address patient/family needs. As Family Resource Specialists are not on-site on a full-time basis, practices have their own unique systems for how referrals flow to the Family Resource Specialist. Most sites have electronic medical records and utilize that system to communicate. The Family Resource Specialists are supervised on a bi-weekly basis by the sub-contractor (RIPIN) Project Manager who physically conducts site visits to provide supervision. The physician and/or nurse care manager in the site manages the workflow in the practices for the Family Resource Specialist. The Department of Health, OSHCN supervises the project from an administrative level, including practices (site visits) and sub-contracting agency.

OUTCOMES
Since implementation in 2004 in eight (8) selected pediatric primary care practices, the PPEP has expanded to over twenty-four (24) sites across the state including hospital-based primary care clinics, health centers, private physician offices, and group practices. The PPEP has demonstrated that utilizing a paraprofessional to reinforce healthcare messages, perform care coordination, and provide patient education provides a very cost effective and outcome driven model for the provision of “medical homes” for CYSHCN and their families.

DISSEMINATION AND SUSTAINABILITY
During the course of the project, the PPEP has been awarded several national recognitions, and provided technical assistance to several states interested in replicating the model. The success of the model has spawned the development of similar peer models for other programs within the state to address frequent emergency use, substance abuse, and mental health. The PPEP has been funded by HEALTH’s OSHCN through grants, state Medicaid Agency funding, and Title V. In addition, since 2009, some limited funding has been provided by the practices themselves. In recent years, as HEALTH has worked to pursue systems reimbursement mechanisms for the project, it has continued to be the primary financial supporter of the PPEP through Title V Maternal and Child Health Services federal block grant funding.

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ORGANIZATIONAL ISSUES
The PPEP is administered by HEALTH’s OSHCN who is responsible for the project’s financial management, practice oversight, and systems development. The PPEP model includes a data component to provide administrators and practices with information regarding patients/families served, needs addressed, resources provided etc. Most importantly, the PPEP database serves to identify system wide barriers facing families trying to access appropriate services for their child/youth. A project steering committee consisting of state agency and community stakeholder representatives (Family Voices Leadership Team) meets monthly to address barriers identified through the PPEP database.
San Diego’s LUNA-D
San Ysidro Health Center, Inc. and
South Bay Latino Research Center

ROLE OF PEER SUPPORT IN LUNA-D

The LUNA-D (Latinos Understanding the Need for Adherence in Diabetes) peer support services occur in the context of group health promotion and are part of a highly integrated system of care consistent with the Chronic Care Model and the PCMH. The promotoras are employees of SYHC Department of Research and Health promotion with many years of health promotion experience. The peer support services are delivered through a curriculum-driven group health education program focusing on skills development, social support and self-management goals. The content was adapted from several evidence-based programs for the local community and is tailored to the patient's needs.

SETTING

- NIH-funded randomized clinical trial that features a promotora-led group health education program targeting diabetes self-management care.
- Expertise of two organizations and 24 years of collaboration to achieve a highly integrated “partnership” to develop and evaluate a sustainable model of chronic care.
- Takes place at the “partnership clinic” supported by the Research Department of San Ysidro Health Center, Inc., (SYHC) and the South Bay Latino Research Center (SBLRC) at San Diego State University (SDSU).
- SYHC serves about 90,000 registered patients (mostly low-income Latino population) residing in the central and south regions of San Diego each year.
  - SYHC provides: services to children and adults; behavioral services for children, adolescents and adults; HIV/AIDS primary care and social services; WIC nutritional services; immunizations; social services; enabling services; community outreach; and patient transportation.
  - 8,700 patients are diagnosed with type 2 diabetes, with 50% having 2 or more comorbid chronic conditions or behavioral health issues.
- SBLRC represents a trans-disciplinary team of researchers located in a community-based setting seeking to promote and expedite research to improve chronic diseases (cardiovascular disease, diabetes and obesity) outcomes in Latinos living in the border region of San Diego.
- Together, these organizations are working to build on their 24 year relationship to conduct rigorous, community-based epidemiologic, behavioral, and genetic research in an effort to reduce disparities for disadvantaged populations.
HOW PEER SUPPORT IS INTEGRATED WITH CLINICAL TEAMS

In project LUNA-D peer educators are co-located with physical health (mid-level provider) and behavioral health (clinical psychologists or LCSWs) providers. The peer educators and the care coordinator enter and track patient self-management goals into the EHR and have the ability to dialogue directly with both the physical and behavioral providers because of the co-location. Conversely physical and behavioral providers have direct access to the peer educator to discuss clinical and behavioral goals. All activities of the team are coordinated by the use of a chronic disease registry overseen by the team’s care coordinator. All participants in LUNA-D are scheduled with the behavioral Health Consultant and thus there are no referrals per se.

ORGANIZATIONAL ISSUES

Challenges include: 1) developing the “right” curriculum content for different age groups, 2) recruiting busy patients who have jobs, 3) convincing participants that the group health education is worth their time, 4) attendance at the sessions, 5) acquiring space in the health center, and 6) buy-in from the clinicians.

We have addressed many of the challenges by the creative thinking and collaboration by SYHC and SDSU. The key feature which facilitates this and other programs is the “partnership clinic.” This is an intermittent specialty clinic allowed by HRSA for diabetes management and other CVD risk factors. The space and program are operated by SDSU and the infrastructure and clinical staff is operated by SYHC. This arrangement allows us to experiment with various configurations in the delivery of the Chronic Care Model.

DISSEMINATION AND SUSTAINABILITY

Based on the results of LUNA-1 San Ysidro Health Center is now training staff and providers to create patient panels for each provider and team, develop protocols for the PCMH and use evaluation methods from the LUNA projects.

OUTCOMES

About 56% of the total LUNA-1 participants had Type II diabetes. About 64% of those participants had uncontrolled diabetes (A1c >7%) at baseline. There was a significant time by treatment interaction for A1c from baseline to the 6-month (M6) follow-up assessment (n=107). Those individuals randomized to the usual care group had an increase in A1c from 7.9 at baseline to 8.2 at M6. The Special Intervention group had a decrease in A1c from 8.1 to 7.6.

About half of participants (45%) had no significant depression symptoms at baseline and only about 13% of the sample had moderate to severe depression symptoms. There was no significant interaction between time and treatment for depression. However, there was a trend in the right direction with those participants in the intervention group having lower depression at M6 (M=5.62) compared to baseline (M=6.99).
COMMUNITY HEALTH WORKER INTERVENTION

The Williamson Health and Wellness Center, Inc., working as the Mingo County Diabetes Coalition, employs a combination of clinical and neighborhood interventions to reduce healthcare costs and improve health outcomes for individuals with Type 2 Diabetes Mellitus. The Clinical Team includes three part-time mid-level providers and a consulting physician as well as a Clinical Team Leader, Licensed Clinical Social Worker and 3.5 full-time Community Health Workers (CHW). The CHW are the eyes and ears of more than 20 area providers, spending four-five days each week in the field working with a case load of roughly 33 individuals.

The Clinical Team convenes weekly at a care conference to discuss individual progress addressing issues such as medication adherence, chronic disease self-management, lifestyle changes, complication prevention and socio-environmental factors that may impact patient outcomes. CHW link individuals to community resources including active living and healthy eating programs, health education and encourage referrals to physicians and specialized providers. Problems and medication adjustments are communicated by either the mid-level practitioner to the primary care provider regularly.

FORMALIZING A PROVIDER NETWORK

After witnessing the positive health impacts of community health worker interventions, several health sector entities within the tri-county region agreed to collaborate on a project of mutual concern to formalize and maintain an integrated health alliance for central Appalachia. The Central Appalachian Health Alliance was formalized in 2015 to guide patient-centered initiatives focused on community health improvement, sustainable economic development, and improved access to an integrated health care system. The alliance was formed to provide members with infrastructure, expertise, and program support to:

- Achieve Patient-Centered Medical Home (PCMH) transformation and recognition
- Develop capacity and infrastructure to maximize the positive impact of health care reform
- Strengthen data capacity and infrastructure for population health management
- Strengthen collaboration with health care delivery system stakeholders to support quality care initiatives and realize cost savings
- Promote a Culture of Health in Central Appalachia that results in measurable improvements in health outcome indicators
The organizations who form the Central Appalachian Health Alliance agreed to jointly concentrate on interventions to address chronic disease (Type 2 DM, COPD, CHF) in the tri-county region.

**OVERCOMING CHALLENGES**

As the Williamson Health and Wellness Center navigates the process of becoming recognized as a medical home, the value of creating systems that support communication between providers is apparent. The formation of the alliance enables each provider to identify common solutions to technological and people centered challenges as they arise.

**Electronic communication between providers.** Several providers in the alliance have not updated to electronic medical records and among those who have, many are still in transition. Barriers include a lack of skilled technological support, lack of funds to cover upfront equipment and training costs and unwillingness to pay ongoing cost incurred from third party companies. The alliance hired an information technology specialist to mitigate support problems for members.

**Communication with patients.** As evidenced in the CHW program, several providers are often treating one single patient, yet that patient may not always be forthright about treatment including medications and assessments. CHWs build trusting relationships with patients and report findings to the clinical team who communicates the information back to providers. Each provider has more accurate information about each individual patient based on CHW discovery.

**Fair distribution of services.** Providers refer individuals for CHW services and those individuals are evaluated before being enrolled into the program. Initially, providers were concerned about the fairness of the evaluation process. The risk assessment used to evaluate individuals was developed by a third party to ensure providers the fair distribution of CHW services to patients referred by more than twenty providers by using this risk assessment tool.

**Calculating cost savings.** While it is apparent that CHW services reduce hospitalization and emergency room visits, it remains a challenge to calculate the return on investment for prevention. This is true for the range of adverse events including mortality rates, amputation, stroke, micro-vascular disease and renal failure. To address this challenge, our organization partners with Marshall University as part of a Steering Committee to develop CHW Guidelines in West Virginia. Through this process, we are engaging with stakeholders to learn more about the payor perspective regarding adequate methods of calculating cost savings. Stakeholders include private and public insurance companies.

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<th>County</th>
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<tr>
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**IMPACT**

The Community Health Worker intervention has resulted in a range of successes from personal stories to systems change and significant cost savings. Referrals to nephrologist, podiatrist and other providers have increased as a result of physical exams and lab review. Over $50,000 has been leveraged via patient assistance programs for medications. Eighty-one individuals have lowered A1C more than one percentage point. In addition to lowering of A1C, participants have shown improvement in the following health outcomes:

- Lowering of blood pressure
- Lowering of LDL cholesterol
- Reduction of ER visits
- Reduction of inpatient admissions

**Changes in Hemoglobin A1c Among Individuals Enrolled in CHW Interventions**

- 81 - Reduced A1C > 1.0%
- 18 - Reduced A1C 0.5-1.0%
- 4  - Reduced A1C 0.1-0.4%
- 12 - No improvement
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## APPENDIX OF RESOURCES

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