Community Health Advocates: Enhancing Use of Primary Care by Employing Community Health Workers in a Safety Net Setting

(The Blue Cross Complete Pilot:
A Project of the Washtenaw Health Initiative)

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Table of Contents

Enhancing Use of Primary Care by Employing Community Health Workers in a Safety Net Setting

Executive Summary

Description

Literature has shown that implementing community health workers (CHWs) in the primary care setting can help improve access to care, health literacy, outcomes for chronic conditions like diabetes and hypertension, particularly among underserved communities.[1] The Blue Cross Complete (BCC) pilot program initially placed three Community Health Advocates (CHAs)[2] at Ypsilanti Health Center (YHC) but due to difficulties with implementation at YHC, the intervention site was changed to Packard Health Clinic (PHC)[3] (see Appendix A for additional details).

Intervention

From November 2013-October 2014[4], three CHAs aimed to contact newly enrolled BCC members and assist them in scheduling an appointment with a primary care physician (PCP) within 60 days of enrollment. The CHAs also contacted established patients with identified gaps in preventive care and encouraged them to schedule appointments to address those gaps. Prior to program implementation, the CHAs underwent an extensive four-week training program before shadowing PHC staff to become familiar with PHC's electronic system and other protocols used within the clinic. Once integrated into PHC, each month the CHA supervisor provided the CHAs with a list of new BCC members and members with gaps in preventive care. The CHAs then researched each member to determine whether the patient was eligible for a call. Members were ineligible for a call if:

1. They had previously established care at PHC or another location,
2. They had already scheduled an appointment to establish care or address the identified gap in care,
3. They were not yet due for the preventive service.

The CHAs called all eligible members and attempted to schedule an appointment with those they were able to contact. During the course of the call, the CHAs made referrals to human and social services such as food assistance and transportation services as appropriate.

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[1] Rosenthal, E. L., Brownstein, J. N., Rush, C. H., Hirsch, G. R., Willaert, A. M., Scott, J. R., … Fox, D. J. (2010). Community health workers: part of the solution. Health Affairs (Project Hope), 29(7), 1338–42.

[2] In this report the term Community Health Worker (CHW) and Community Health Advocate (CHA) are used interchangeably.

[3] Packard Health Clinic was recently certified as a Federally Qualified Health Center Look-Alike (FQHC-LAL) by the Centers for Medicare and Medicaid Services (CMS). Consistent with this designation, Packard Health Clinic serves a medically underserved population and provides services to patients regardless of their ability to pay for services.

[4] With the original project timeline, the program would have concluded prior to implementation of the Healthy Michigan Plan. However, because of various program delays the timeline overlapped with the rollout of the Healthy Michigan Plan.

Outcomes

Program results were analyzed through a mixed-methods evaluation which utilized claims data, program data collected by the CHAs, and qualitative interviews conducted with the CHAs and their supervisor. Results are outlined below:

Member Eligibility-PHC's provider portal identified 1479 members as potentially eligible for the intervention. Upon further research of the clinic records, the CHAs determined that 1052 (71%) of those members were eligible to receive a call. The remaining members identified through the provider portal had previously established care at PHC or another clinic, had already scheduled an appointment to establish care or complete a preventive care visit, or were not yet due for a preventive care service.

Demographics- The average age of members who had a visit during the program period or post-period[5] was 39; 53% of the members were female and 47% were male.

Appointments Scheduled- Of the 1,052 members the CHAs called, 34% (N=359) had an appointment within the program period or the post-period. Of those members, 74% (N=265) scheduled their appointments directly through the CHAs. Eighty-seven percent (N=314) of members who had appointments were new members with gaps in preventive care, while 13% (N=45) were solely new members. The most common gaps in care of the patients who scheduled appointments included: breast, cervical and colorectal cancer screenings; well child and adolescent care check-ups; and HbA1C testing**.**

Days Lag- The evaluation assessed the days lag[6] of new BCC members attributed to PHC during the program period. Members who were called by the CHAs had a median days lag of 34 days, compared to 24 days for members not contacted by CHAs and 45 days for all BCC patients who enrolled during the program period.

Provider Satisfaction-Qualitative program data showed that perceived value of the CHAs within PHC was high. PHC staff noted that incorporating the CHAs reduced their workload.

Patient Satisfaction- Qualitative data also indicated that the CHAs' ability to identify themselves as community members resonated with the members they called. Although the CHAs had difficulty contacting members, when contacted, members often expressed their appreciation for receiving a call.

Key Lessons Learned

CHA training on and direct access to electronic medical records was critical to their successful integration and the value-added by their work. Initial CHA implementation into YHC was hindered by the CHAs not having access to patient records and appointment scheduling software. As a result, the CHAs had to transfer patients to YHC's appointment scheduling line which led to increased wait times for patients and did not reduce the workload for YHC staff. The CHAs had access to scheduling software at PHC, and were able to perform outreach and schedule patient appointments on their own, which reduced the workload for PHC staff.

Program results suggest that utilizing CHAs to perform outreach to a large number of patients by telephone was not an effective application of the CHA model. Employing CHAs to perform general outreach to a large number of members prevented the CHAs from interacting significantly with the members they contacted, and in retrospect may have diminished the effect of the CHAs. However,

[5] The post-period is defined at November 2014-January 2015
[6] Days lag is defined as the number of days between new BCC member enrollment and their first visit to a PCP

qualitative data does highlight the value of the CHAs and their ability to support clinic staff, reduce administrative staff workloads, and generate positive perceptions among patients who were contacted. Successful CHA implementations employ CHAs to perform targeted outreach to an assigned group of patients over an extended period of time. Assigning CHAs a discrete patient group provides a greater opportunity to develop a meaningful relationship between the patient and the CHA.

Conclusion

The Institute for Healthcare Improvement has identified the Triple Aim as being essential to maximizing the performance of the US health system.[7] The Triple Aim is defined as improving the patient experience, improving the health of the population, and reducing the cost of health care.[8] Programs utilizing CHWs can help clinics and hospitals achieve the Triple Aim, however, to maximize the benefit of CHAs, their work should build on the lessons learned in this project. Implementing CHAs to perform more general outreach is not the most effective use of CHAs. Future CHA implementations should allow CHAs to performed concentrated outreach to a selected group of patients for an extended period of time. For example, a Spanish speaking CHA might follow-up with a newly diagnosed, Spanish speaking diabetic patient in the weeks after diagnosis to support the patient in improving measurable health outcomes. The program's effectiveness should then be evaluated by assessing the member's progress toward achieving identified goals.

[7] Institute for Healthcare Improvement: Triple Aim for Populations http://www.ihi.org/Topics/TripleAim/Pages/default.aspx.
[8] Ibid.

Detailed Evaluation Report

Project Description

The Blue Cross Complete (BCC) Pilot program was developed based on the assumption that a large number of new BCC enrollees do not have a first visit to their PCP within 60 days of enrollment.[9] Additionally, program history indicated that many new Medicaid (including BCC) enrollees do not keep their initial appointments with their PCP.[10] As a result, many Medicaid enrollees do not establish a medical home and instead seek costly medical treatment in the emergency department (ED) or urgent care facilities. High ED use not only increases healthcare costs, but also prevents the patient from receiving continuous medical care and complicates disease management, particularly for patients with chronic diseases and co-morbid conditions. Furthermore, establishing a medical home allows the patient care team to assess social service needs and make referrals as necessary.

Literature has established the effectiveness of incorporating CHWs as part of the primary care team. Past programs have shown that implementing CHWs in the primary care setting can help improve access to care, health literacy, and outcomes for chronic conditions like diabetes and hypertension—particularly among underserved communities.[11] The BCC pilot program aimed to leverage the benefit of CHWs by integrating them into a safety net clinic to encourage new patients to establish care, and encourage established patients with identified gaps in preventive care to make appointments to address those gaps.

Intervention

Three CHAs were integrated into Packard Health Clinic (PHC) from November 2013-October 2014. CHA training was completed in two phases, prior to program implementation the CHAs underwent an extensive four-week training program where they were oriented to the electronic systems they would be working with, and given background information on health care coverage, protocols for handling sensitive patient information, and local options to remedy human and social service needs. Once integrated into PHC, the CHAs then shadowed PHC staff and were trained in using the EMR system used within the clinic (additional training details included in Appendix A). Throughout the program, each month the CHA supervisor provided the CHAs with a list of new BCC members and members with gaps in preventive care.

The CHAs then researched each member to determine whether the patient was eligible for a call. Members were ineligible if they had previously established care at PHC or another location, they had already scheduled an appointment to address the identified gap in care, or they were not yet due for the preventive service. The CHAs called all eligible members, and attempted to schedule an appointment with those they were able to contact. During the course of the call, the CHAs made

[9] Community Health Advocates: Enhancing Use of Primary Care and Addressing Social Determinants of Health (The Blue Cross Complete Pilot, a Project of the Washtenaw Health Initiative).
[10] Ibid.
[11] Rosenthal, E. L., Brownstein, J. N., Rush, C. H., Hirsch, G. R., Willaert, A. M., Scott, J. R., … Fox, D. J. (2010). Community health workers: part of the solution. Health Affairs (Project Hope), 29(7), 1338–42. http://doi.org/10.1377/hlthaff.2010.0081

referrals to human and social services such as food assistance, and transportation services as appropriate.

As enrollment for the Healthy Michigan Plan began on April 1, 2014, the BCC pilot program was implemented during a significant time of change for the healthcare system in Michigan. Although program data is not able to analyze the precise effect this had on program implementation, it is reasonable to assume that the additional volumes of newly insured Medicaid patients added to the overall workloads of clinic staff and the CHWs.

Project Goals

The BCC pilot project aimed to achieve positive health outcomes and cost-efficient provisions of care through:

1. The appropriate and effective use of primary health care, by increasing the number of patients who have their first visit to a PCP within 60 days of enrollment, and
2. The use of preventive services, by reducing the number of gaps in preventive care among established patients.

Evaluation Methodology

The evaluation of this program was a mixed-methods evaluation of both process and outcome measures. Particular attention was paid to how the program was implemented in order to generate a set of lessons learned for future programs.

The evaluation aimed to answer the following questions:

1. Does outreach from a community health advocate (CHA) to new BCC enrollees increase the likelihood of those enrollees seeing their PCP within 60 days, compared to those enrollees that do not receive outreach?
2. Is the use of CHAs for outreach to new enrollees an effective way to reduce the number of gaps in preventive care among established patients?
3. Does the CHW model add value within the primary care setting?

To answer these questions, the evaluation utilized three comparison groups:

1. Packard BCC members contacted by CHAs
2. Packard BCC members not contacted by CHAs
3. All BCC members

Three data sources were used in the evaluation:

1. Program data collected by the CHAs which tracked all the patients that were identified through NaviNet[12] as being new members and/or having gaps in care.
2. Insurance claims data obtained through BCC which identified new members and tracked the days lag between the enrollment date and the data of first service.
3. Qualitative data from interviews with the CHA supervisor and CHAs.

[12] NaviNet is PHC's provider portal.

Program Outcomes

Member Demographics

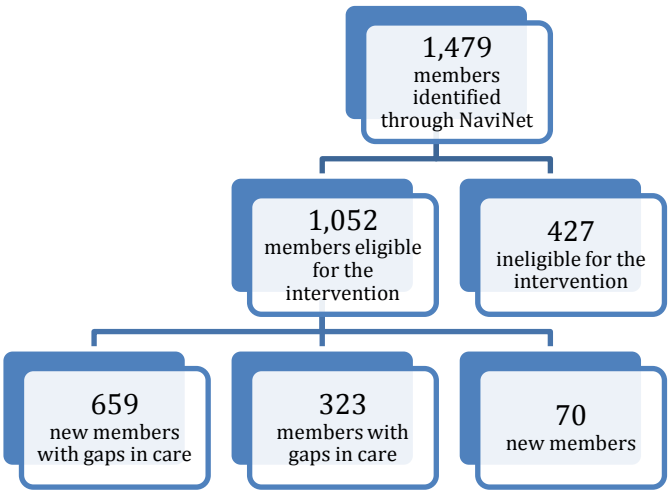
The evaluation tracked member demographics throughout the intervention. There was a significant difference in the average age of members who scheduled appointments (39) and the average age of those who did not schedule appointments (32). However, there were no significant differences in the gender of the members who scheduled appointments and those who did not schedule appointments.

- **Members pulled through NaviNet (N=1,479)**
  - Average Age: 34
  - 55% (N=812) Female
  - 45% (N=667) Male
- **Members who scheduled appointments during program period or post-period (N=531)**
  - Average age: 39
  - 53% (N=284) Female
  - 47% (N=247) Male
- **Members who did not schedule appointments (N=517)**
  - Average Age: 32
  - 54% (N=280) Female
  - 46% (N=237) Male

Member Eligibility

Members were considered eligible for the intervention if they were newly enrolled in BCC, and/or were due for a preventive service or screening. NaviNet initially identified 1,479 members as eligible for the intervention. Upon further research of the clinic records, the CHAs determined that only 1,052 (71%) members were eligible to receive a call from the CHAs **(Figure 1)**. The remaining members identified through the provider portal had previously established care at PHC or another clinic, were not yet due for a preventive service, or had already scheduled an appointment to establish care or complete a preventive service or screening.

Figure 1



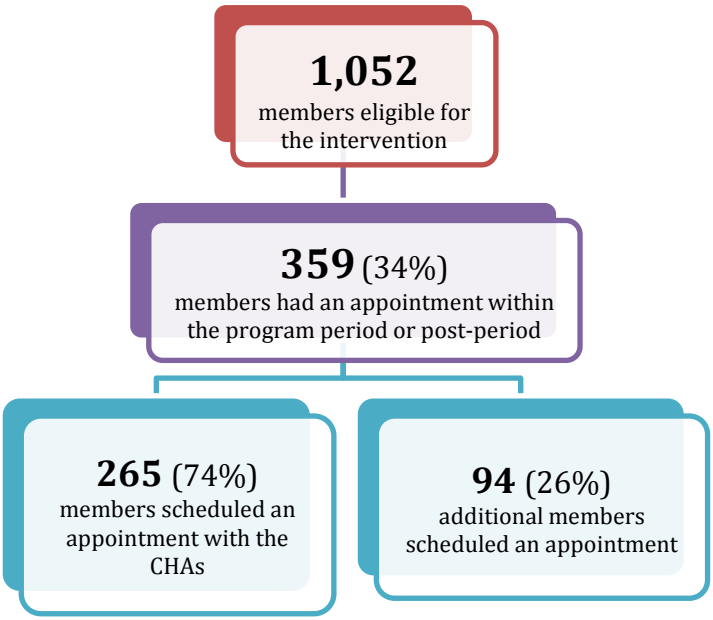
Appointments Scheduled

Thirty-four percent (N=359) of the patients called by the CHAs had their first visit during the program period[13] or during the post-period[14]. The CHAs scheduled appointments with 265 of those members (74% of members who had an appointment). An additional 94 members (26% of members who had an appointment) had their first visit within the program period or the post-period although those appointments were not scheduled by the CHAs (Figure 2). A limitation of this data is that the evaluation cannot confirm whether the additional 94 patients who had their first visit within the program period or during the post-period scheduled an appointment as a result of CHA outreach. However, it is possible that CHA outreach could have encouraged the members to schedule an appointment.

Although the CHAs were only able to schedule an appointment with 25% of total number of members they called, 74% of the appointments that were scheduled during the program period or the post-period were scheduled directly through the CHAs. This suggests that the CHAs were effective in scheduling appointments with the members they were able to contact, although their ability to effectively contact new members was limited by the amount of time and effort spent sorting through clinic records to identify members eligible for the intervention.

The majority of the members who had their first visit during the program period or post-period were new members who also had gaps in preventive services (N=314). The most common gaps in care of the patients who scheduled appointments included: breast, cervical and colorectal cancer screenings; well child and adolescent care check-ups; and HbA1C testing**.** The remaining members who had appointments were solely new members.

Figure 2



[13] The program period is November 2013-October 2014.
[14] The post-period is November 2014-January 2015.

Days Lag

The evaluation assessed the days lag[15] of new BCC members attributed to PHC during the program period. Members who were called by the CHAs had a median and average days lag of 34 and 55 days, respectively, compared to median and average days lag of 24 and 40 days, respectively, for members not contacted by CHAs **(Figure 3)**. All newly enrolled BCC members who enrolled during the program period had a median and average days lag of 45 and 80 days respectively. Both members who were called by CHAs and those who were not called by CHAs had a median and average days lag of less than 60 days. However, members who were called by the CHAs did have a higher median days lag than members who were not called by the CHAs.

It is possible that selection bias is affecting the days lag among the members who were called by CHAs. Members called by CHAs were those that had not established care or scheduled an appointment to address a gap in preventive care on their own. Therefore, the members contacted by CHAs were those who inherently faced more challenges in receiving care. As a result, the limited interaction between the member and the CHA may not have been enough to overcome the barriers to care faced by the member.

Additionally, the average days lag of all PHC patients (both those contacted by CHAs and those not contacted by CHAs) was significantly less when compared to that of all BCC patients. This suggests that PHC was already a high functioning clinic that was doing sufficient outreach to its new members.

Figure 3

	Median Days Lag	Average Days Lag
Packard patients contacted by CHAs	**34**	**55**
Packard patients NOT contacted by CHAs	**24**	**40**
All BCC patients	**45**	**80**

Provider Satisfaction

Qualitative program data shows that perceived value of the CHAs within the clinic was high. PHC staff noted that incorporating the CHAs reduced their workload, and that clinic patients identified with the CHAs because of their status as community members. Initially, due to the requirements of training and answering questions from the CHA supervisor felt that her workload increased. However, over time, clinic staff felt that the presence of the CHAs significantly reduced their workload,

"The best way to put it is that if the CHAs weren't here doing outreach to these people it would be me doing outreach to these people…so that made a pretty big impact."

[15] Days lag is defined as the number of days between new BCC member enrollment and their first visit to a PCP

Patient Satisfaction

Despite difficulty in contacting members, the CHAs and PHC clinic staff felt that the CHAs status as community members helped the CHAs to connect with clients and encourage them to schedule appointments. She attributed this to their ability to identify themselves as community members when talking with clients,

"*I think the reason that they get the calls back… is the fact that they identify themselves as a Community Health Advocate. That title is so important and it speaks to the patient… I don't identify myself as that I'm just somebody calling from Packard. Even if I do say I'm a patient care assistant that doesn't make a difference because some people might not know... I think that that is just so welcoming to the person who is listening to that message because just the title right there says so much.*"

Barriers and Facilitators to Program Implementation

Facilitators to Program Implementation

Communication- Qualitative data showed that communication among the CHAs was critical to the successful integration of the CHAs into PHC. Because the CHAs worked in shifts that did not always overlap, there was often confusion about notations made by the CHA from the previous shift. After observing this, the CHA supervisor established monthly meetings with herself and all three CHAs. Both the CHAs and their supervisor felt that these meetings increased communication and improved efficiency of the program.

Clearly defined roles and expectations for the CHAs- Qualitative data also indicated that the CHAs were able to effectively perform the roles they were assigned. As a result of their extensive training both by the Washtenaw County Public Health Department as well as by PHC, the CHAs discussed that they felt comfortable either referring a patient to their supervisor or simply stating "*I don't know"* if a patient asked them medical questions that were beyond the scope of their position.

Capabilities of the implementation site- PHC has several attributes that made the clinic an ideal implementation site for the BCC pilot program. First, the CHA supervisor was available to spend a considerable amount of time training and providing guidance to the CHAs throughout the program. Having a staff person available to respond to CHA questions allowed for the smooth integration of the CHAs into the clinic. Secondly, when implemented into PHC, the CHAs had access to electronic patient records and PHC's appointment scheduling software, this increased CHA efficiency and helped them to better accomplish their assigned roles. Lastly, the implementation site should be involved in the development of the program and have substantial input into what value a CHA might provide. Doing so could improve the fit of the program into the clinic's particular workflow and capacity needs. It would also lessen the likelihood to change sites or scope of work mid-course because the program would be grounded from its very inception in the needs of the clinic.

Barriers

Data Collection- The evaluation utilized program data collected by CHAs, data obtained through PHC's provider portal, and claims data obtained through BCC. Utilizing data from varying sources presented a significant barrier due to difficulties in reconciling the data. The data discrepancies required the evaluation team to spend a significant amount of time working to resolve the inconsistencies. As a result, the evaluation team shifted the focus of the quantitative analysis.

Administrative role of CHAs- Due to difficulties with the claims data (additional details in Appendix A), the CHAs spent a significant amount of time researching clinic records to determine whether the patients were eligible for the intervention. Once the patient was determined to be eligible for a call, the CHAs then spent a substantial amount of time calling patients. The amount of time spent performing administrative functions limited the time the CHAs were able to spent interacting and building relationships with patients. Additionally, because the CHAs performed outreach during the work day, members they were able to contact often rushed to end the phone call due to time. Researching patient

records was made more difficult by PHC transitioning their electronic medical record (EMR) system during the intervention period.

Language barriers- The CHAs also regularly encountered language barriers while attempting to contact patients. After a number of calls where the CHAs experienced language barriers, the CHAs began using a language translation service.

Communication- Although communication was high among the CHAs and between the CHA and their supervisor, communication between the CHAs and the evaluation team could have been improved. The evaluation team implemented data collection and reporting methods during the program that the CHAs found difficult to understand. Increased communication between the CHAs and their supervisor and the program evaluation team would have helped to improve program efficiency.

Lessons Learned

I. CHA outreach should focus on a targeted condition or a behavior specific patient population.

A. Utilizing CHAs to perform outreach to a large number of patients by telephone was not an effective application of the CHA model. The main barrier the CHAs experienced was the significant amount of time spent first researching clinic records to determine eligibility, then making multiple calls to members who were unable to be reached due to incorrect phone numbers, or numbers that were no longer in service. Using CHAs to perform general outreach to a large number of members prevented the CHAs from interacting significantly with the members they contacted, and in retrospect may have diminished their effect. However, qualitative data does highlight positive provider and patient satisfaction.

Literature has shown that successful CHAs implementations employ CHAs to perform targeted outreach to an assigned group of patients over an extended period of time. Assigning CHAs a discrete patient group provides a greater opportunity to develop a meaningful relationship between the patient and the CHA, which allows CHAs to have more significant impacts on the patient's health. As this relationship builds, the CHAs will also have a better opportunity to inquire about other human and social service needs. Because the CHAs performed outreach during the work day, members they were able to contact often rushed to end the phone call due to time constraints. As a result, the CHAs often did not have time to inquire and identify human and social service needs and were only able to identify eight members in need of a referral.

B. Therefore, future programs should allow the CHAs to focus on a condition or a behavior specific patient population, rather than performing more general outreach. For example, a future program could assign a Spanish speaking CHA to follow-up with a newly diagnosed Spanish-speaking diabetic patient in the weeks after diagnosis. The CHA could support the patient in improving measurable health outcomes, and the program's effectiveness should then be evaluated by assessing the members' progress toward achieving identified goals.

II. CHA training should include preparation on working with patients who speak a different language.

After regularly encountering language barriers when making calls, the CHAs in the BCC program began utilizing a language translation service. However, at least one CHA found the service difficult to use. The CHAs may have benefitted by being trained to use the language translation service at the start of the program. **Therefore, to the extent possible, CHA programs should aim to recruit and hire CHAs that speak languages that are common in the implementation area. Additionally, initial CHA orientation should include training on working with patients who speak a different language.**

III. CHAs should have clearly defined roles and expectations.

The CHA supervisor indicated that CHAs successfully operated within their established role. The CHAs affirmed this, elaborating that if patients asked them medical questions that were beyond the scope of their position they felt comfortable handing the case over to their supervisor, or just stating *"I don't know."* Accordingly, prior research[16] indicates that overly high expectations can hinder community health workers, suggesting that clarifying roles and expectations at the outset is important to avoid stress and misunderstanding.

IV. Selecting the appropriate implementation site is key to successful CHA integration.

Integrating CHAs into the appropriate clinic is essential to the success of future programs. Some lessons learned about selecting the appropriate implementation site are detailed below:

A. The implementation site should be able to provide on-site supervision of the CHAs. The work of the CHAs was fairly smooth, in large part due to the (uncompensated) on-site supervision of administrative support staff at both YHC and Packard Health. The CHA supervisor played an integral role in the work of the CHAs by facilitating training and providing guidance throughout the program.

B. CHAs should receive training on and direct access to patient histories and appointment scheduling software. Due to confidentiality requirements at YHC, the CHAs did not have access to scheduling software and had to refer patients to YHC's appointment scheduling line, which only created additional work for YHC staff. At PHC the CHAs had access to patient records and scheduling software which streamlined their work by allowing the CHAs to schedule appointments on their own.

C. The implementation site should be involved in developing the program and have substantial input into what value a CHA might provide. Doing so could improve the fit of the program into the clinic's particular workflow and capacity needs. It would also lessen the likelihood to change sites or scope of work mid-course because of unanticipated the program would be grounded from its very inception in the needs of the clinic (see Appendix A for additional details).

V. Communication and coordination should be maintained throughout the program.

A. The CHA supervisor should hold regular meetings with all program CHAs. Establishing regular program meetings at the onset of the program will increase the efficiency of the CHAs by allowing them to discuss and resolve any issues or concerns.

B. Program evaluation team should meet regularly with the CHAs and their supervisor. Having frequent check-ins between the evaluation team and the CHAs ensures mutual understanding and fidelity of data collection methods and reporting. The will ensure that parameters for data collection are consistently monitoring and maintained.

VI. Program data collection strategies should be aligned at the start of the program.

A. Programs implementing CHWs should ensure that the different data sources included in the evaluation are aligned at the start of the program. Additionally, the program team should run data checks at regular intervals throughout the program to ensure fidelity of the data.

[16] SM Swider (2002). "Outcome effectiveness of community health workers: an integrative literature review. Public Health Nursing 19(1):11-20.

Conclusions and Recommendations

Conclusion

During the implementation of the BCC pilot program, Michigan's health care system underwent significant changes. From the implementation of the Healthy Michigan Plan, to the launch of the State Innovation Model funded by the Center for Medicare and Medicaid Innovation (CMMI), Michigan's healthcare landscape will continue to evolve and an increasing number of individuals will continue to enter the health care system in need of medical, behavioral, and social care. As the number of individuals in the healthcare system continues to increase, efficient management of these patient and their health priorities will become more critical. The implementation of CHWs in the primary care setting can help Michigan work towards this goal.

All PHC patients, both those called by CHAs and those not called had median and average days lag of less than 60 days, while BCC patients had an average days lag of more than 60 days. This suggests that prior to implementation, PHC was a high functioning clinic who performed sufficient outreach to their members and may not have needed the assistance of CHAs. Additionally, 34% of members contacted by CHAs had an appointment during the program period or post-period. Seventy-four percent of these members scheduled their appointments directly with the CHAs.

Overall, program results suggest that utilizing CHAs to perform outreach to a large number of patients by telephone was not an effective application of the CHA model. However, qualitative data does highlight the value of the CHAs and their ability to provide support to clinic staff, create a reduction in administrative staff workloads, and generate positive perceptions among patients who were contacted.

Previous literature suggests that the CHW model can have a substantial impact on patient outcomes.[17] However, successful implementations have used CHAs to perform targeted outreach to an assigned group of patients over an extended period of time. Utilizing CHAs in this manner allows for the development of peer relationships between the patient and the CHA and empowers the CHA to act as an advocate for the patient and a liaison between the patient and their primary care team.

The BCC pilot implementation required three CHAs to perform extensive outreach to a large number of patients by telephone. As a result, the CHAs estimated that they only interacted with each patient for only 2-5 minutes, while they spent closer to ten minutes researching each patient to determine eligibility. This prevented the CHAs from establishing peer relationships with the patients they contacted and in retrospect may have diminished their effect.

Programs utilizing CHWs can help clinics and hospitals achieve the Triple Aim, simultaneously working to improve the patient experience, improve the health of the population and reduce the cost of healthcare[18]. To maximize the benefit of CHAs, their work should build on the lessons learned in this project.

[17] Adair, R., Wholey, D. R., Christianson, J., White, K. M., Britt, H., & Lee, S. (2015). Improving Chronic Disease Care by Adding Laypersons to the Primary Care Team, (July 2010).
[18] http://www.michwa.org/wp-content/uploads/MiCHWA_CHW-ROI.pdf

Appendix A: Detailed Program History

Program History

The program was initially developed to increase the number of new Medicaid enrollees who establish care within 60 days with their assigned PCPs. The primary care outreach/care management workgroup of the Washtenaw Health Initiative believed that Community Health Advocates (CHAs) could assist newly enrolled patients in accessing primary care and also offer referrals to social services such as housing, food and transportation.

Ypsilanti Health Center (YHC), which has a high volume of new Medicaid enrollees, was chosen as the initial implementation site. YHC was an ideal site because as it was already part of the BCC provider network and serves the largest BCC population located at a single point of service in Washtenaw County. Funding was provided by Blue Cross Blue Shield of Michigan on behalf of BCC, the Washtenaw Health Plan offered funding and CHAs were selected from the CHA program at the Washtenaw County Public Health Department, evaluation services were provided by the Center for Healthcare Research and Transformation.

Program Timeline

November 2012-December 2012

A core leadership group including staff from the Washtenaw Health Plan, Washtenaw County Public Health Department, Blue Cross Shield of Michigan and Blue Care Network/Blue Cross Complete and the Center for Healthcare Research and Transformation began meeting in November 2012 to plan implementation of the Blue Cross Complete Pilot Program at YHC.

January 2013-June 2013

Initial program implementation began in late 2012 at YHC. Although YHC staff thought highly of the CHAs' work, several challenges arose immediately:

- **Low call volume:**
  - Many patients listed in BCC data as "new, never seen" may have been new to BCC, but had already established care at another clinic. Additionally, some patients were previously on the WHP or a private (non-BCBS) insurance and therefore did not need to schedule an appointment for first time care.
  - Several phone numbers were missing from the DHS records, and many phone numbers identified families (so 20 new members might actually mean only 7 phone calls).
- **Implementation site:**
  - At the time, YHC was transitioning their electronic records system to the EPEC platform which made integrating the CHAs difficult.
  - YHC also hired additional staff which resulted in limited space for the CHAs to work.
  - CHAs would transfer patients to the YHC appointment desk. The appointment desk was already overwhelmed with the change in EMR systems which would result in patients having to wait for several minutes to schedule appointment.

June 2013

In June 2013 YHC staff informed the core group that they would not have the capacity to host the CHAs for the duration of the program.

July 2013-September 2013
The core group then worked to identify another space for the project and determine what work would be most meaningful for the CHAs.

October 2013
In October 2013, the core group reached an agreement to place the CHAs at Packard Health Clinic. The CHAs began orientation at PHC at the end of October 2013.

November 2013-November2014
CHAs began work at Packard Health in November 2013 with the following revised goals:

- Perform outreach to new BCC enrollees to ensure a visit with a primary care physician within 60 days of enrollment
- Perform outreach to BCC enrollees who had identified gaps in care
- Provide referrals to human and social service needs such as food, transportation and housing as needed.

The revised BCC program launched at PHC in November 2013 and ran until October 2014.

CHA Selection and Training

CHA Selection
CHAs for the BCC Pilot program were selected from a group of CHAs that had been previously assembled by the Washtenaw County Public Health Department (WCPHD). CHAs that were selected to participate had personal experience that made them ideal for CHA work. For example, a few had worked for agencies that provided services to underserved populations and others had been recipients of the services that they would later be trained to provide.

In selecting CHAs specifically for the BCC program, WCPHD employees interviewed candidates from the CHA program, asking questions about providing quality service, technical and professional knowledge including working with computers and level of comfort working over the phone. Three CHAs were selected for the program.

CHA Training
Prior to beginning the BCC Pilot Program at the Ypsilanti Health Clinic, selected CHAs underwent an extensive four week training program. Twenty hours of training were devoted to background information about social services resources, Medicaid, HIPAA, and phone calling protocols. Another twenty hours were spent shadowing Ypsilanti Health Center staff, including schedulers and social workers, as well as the front desk, medical assistant, and nursing staff. After the transition to Packard, Julie Wood, the CHA supervisor spent and additional 3-4 days teaching the CHAs the EMR system used within the clinic, and had them shadowing all parts of the clinic, including sitting in the call center, walking around with the medical assistants, shadowing the front desk and check out procedures and talking with the referral specialist.

Appendix B: Detailed Qualitative Analysis

Methodology

A group of students from the University of Michigan Schools of Social Work and Public Health interviewed two program CHAs and the CHA supervisor. A customized interview tool was developed based on self-efficacy measurement tools and protocol found in peer-reviewed literature. The structured interviews were conducted at PHC in a small conference room with the door closed to eliminate distractions and protect confidentiality. Both sessions were voice recorded.

The CHAs were interviewed separately from their supervisor to ensure that CHAs did not feel the need to censor their responses due to the presence of a superior. Similarly, the CHA supervisor felt enabled to answer questions openly without creating potential tension between herself and the CHAs. The interviews were kept confidential. CHAs and their supervisor were asked to sign an informed consent form prior to the interviews.

Analysis

Two of the three community health advocates were able to attend the structured interview. The interview lasted approximately fifty minutes, while the supervisor interview lasted approximately forty five minutes. With permission of the participants, both sessions were audio recorded. To record results, team members debriefed after the sessions and recounted general answers to interview questions.

After the interviews were completed, each member was given a copy of the file and listened to it independently while recording different themes that were identified. Group members then came together and listened to the recordings. They compared previously found and newly emerging themes, and organized them into like categories or related topics. Differences in opinion were also taken into account and potential reasons for these differences were explored. This analysis formed the basis for the answers to the evaluation questions. The results were as follows:

I. Overall, incorporating CHAs into Packard Clinic was perceived to enhance clinic capacity

Julie Wood, the CHA supervisor, felt that her workload increased at the start of the program because of the need to both train and answer questions from the CHAs. Over time however, the CHAs were able to reduce the workload of both Julie and the front desk staff. Because of the previous training through the Washtenaw County Public Department, Packard staff was able to spend only 3-4 days training the CHAs prior to them beginning to work. During the training period, the CHAs observed every portion of the clinic, walked around the clinic with medical assistants, sat in the call center, observed front desk procedures etc. The CHA supervisor also spent time educating the CHAs on clinical terms like mammograms, colonoscopies and well-child visits.

Additionally, the supervisor prepared “cheat sheets” containing information about health screenings and procedures, when they are required and by whom, provider location and availability, and

appointment scheduling guidelines. CHAs relied on these documents to help them work more independently and communicate accurate information to clients. These cheat sheets also reduced the need to refer to the supervisor for these questions.

Beyond the training period, the CHA supervisor described the day-to-day interactions with the CHAs as having progress check-ins, providing the appropriate patient information, and disseminating relevant information and updates.

II. Communication emerged as a main theme from the structured interviews.

Communication among the CHAs was important to increase efficiency and maintain consistency within the program. Because the CHAs worked in shifts that did not always overlap, there was often confusion about notations made by the CHAs from the previous shift. After observing this, the CHA supervisor established monthly meetings with herself and all three CHAs. Both the CHAs and their supervisor felt that these meetings increased communication and improved efficiency.

Communication between the evaluation team and the CHAs around data collection could have been stronger throughout the program implementation. The evaluation team created monthly data report forms in attempt to extract data from the spreadsheet the CHAs used that the CHAs found difficult to understand. This confusion resulted in inefficiencies in data collection. Although the evaluation team met with the CHA supervisor to review the data report forms, it may have been more helpful to meet directly with the CHAs to review the forms and ensure mutual understanding of each measure. Literature shows that other implementations of community health worker programs face somewhat similar issues with data collection. Infante, Knudson, and Brown (2011) noted that one challenge to evaluating community health worker programs is reliance on CHWs to collect data, although they have little training in data collection.

III. Overall the CHAs were effective in completing their assigned tasks. The CHAs were aware of and worked within the boundaries of their position and were able to form strong connections with the members they contacted

Both the CHAs and their supervisor indicated that CHAs successfully operated within the boundaries of their established role. The CHAs noted that they felt comfortable handing the case over to their supervisor, or just stating "I don't know," if necessary. The entire team viewed this approach favorably, considering that CHAs are taught some clinical information, but are not allowed to provide medical advice or chronic disease management. Accordingly, prior research (Swider, 2002) indicates that overly high expectations can hinder community health workers, suggesting that clarifying roles and expectations at the outset is important to avoid stress and misunderstanding.

Additionally, the CHA supervisor viewed the CHAs' status as community members as a key factor in their ability to connect with clients and refer them to social services. She attributed this to their familiarity and ability to identify themselves as community members when talking with clients. The term "Community Health Advocate" seems to resonate with clients compared with a staff member at Packard Community Clinic. Identifying as an advocate for the community seems to warm clients to the initial phone call and possibly make them more receptive to receiving information and making an appointment.

"I think the reason that they get the calls back… is the fact that they identify themselves as a Community Health Advocate. That title is so important and it speaks to the patient… I don't identify myself as that I'm just somebody calling from Packard. Even if I do say I'm a patient care assistant that doesn't make a difference because some people might not know... I think that that is just so welcoming to the person who is listening to that message because just the title right there says so much."

IV. Barriers

The CHAs felt that they called a number of patients that spoke a different language, noting that Spanish and Arabic were most common languages that they ran into. Later on in the program, WCPHD employees instructed the CHAs on how to use the language line. The CHAs had differing opinions on the ease of using the language line. One reported that it was difficult to navigate.

The CHAs also felt that the schedules of the members they were attempting to contact presented a large barrier for the program. Because the CHAs were making their calls during normal business hours they encountered many patients who were at work or were in the middle of doing another activity and would ask to be called back. This created an additional step in the communication process and made it more difficult to ensure that all patients received a follow-up call. Additionally because many members were in a rush to get off the phone, the CHAs did not have many opportunities to explore the human and social service needs of the member, resulting in a low number of referrals made during the program.