U.S. Department of Health and Human Services
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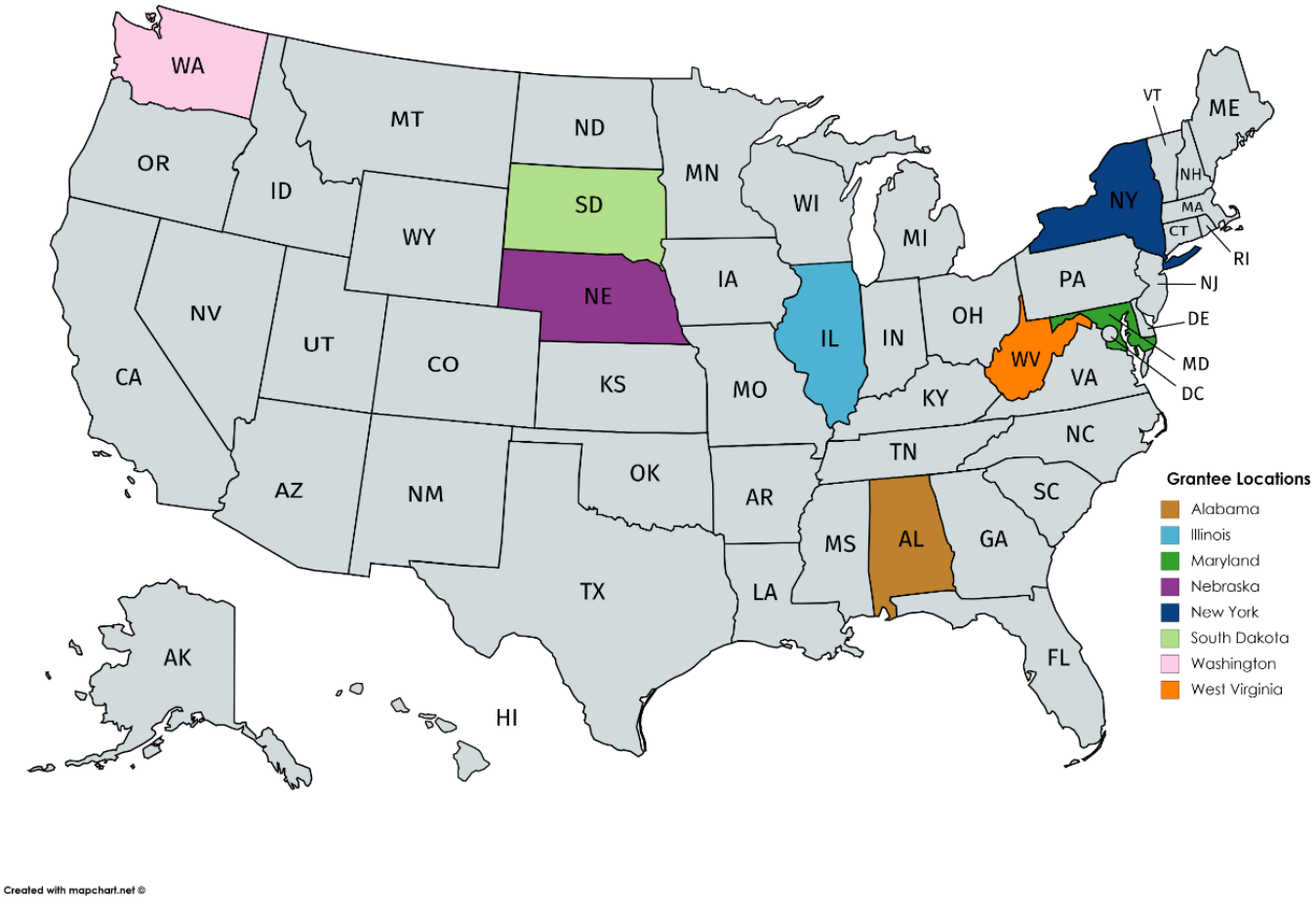
Sourcebook

Rural Health Care Coordination Network Partnership Grant Recipients

2015 - 2018



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2015 - 2018

The Rural Health Care Coordination Network Partnership Grant Program was authorized under Section 330A(f) of the Public Health Service (PHS) Act (42 U.S.C. 254(c)(f)), as amended. Communities were awarded up to $200,000 annually for three years to support the development of formal, mature rural health networks that focused on care coordination activities for the following chronic conditions: type 2 diabetes, congestive heart failure (CHF), and chronic obstructive pulmonary disease (COPD). Care coordination in the primary care practice involves deliberately organizing patient care activities and sharing information among all of the participants concerned with a patient's care to achieve safer and more effective care. Coordination of health services and other supports for people living with chronic conditions is vital to providing high quality care, especially in rural areas where access to health care is an issue.

One of the aims of this grant program was to meet patients' needs and preferences in the delivery of high-quality, high-value health care. Care coordination is identified by the Institute of Medicine as a key strategy that has the potential to improve the effectiveness, safety, and efficiency of the American health care system. Well-designed, targeted care coordination that is delivered to the right people can improve outcomes for everyone: patients, providers, and payers. Care coordination is especially important in the changing health care landscape where payments increasingly focus on value. The ultimate goal of the program was to promote the delivery of coordinated care in the primary care setting. Grantees were required to develop innovative approaches, demonstrate improved outcomes, and employ evidenced-based models in the application of care coordination strategies to address the prevalence and management of diabetes, CHF, and COPD.

This Sourcebook provides a description of the eight initiatives funded under the Rural Health Care Coordination Network Partnership Grant Program[1] from 2015 – 2018. Each grantee profile includes the following information: Organizational Information; Network Partners; Community Characteristics; Program Services; Outcomes; Challenges and Innovative Solutions; Sustainability, and Implications for Other Communities.

[1] Two of the eight communities received additional philanthropic funding through a public-private partnership between the Federal Office of Rural Health Policy (FORHP) and foundations.

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Rural Health Care Coordination Network Partnership Grant Recipients

2015 - 2018

(Listed by State)

* Received supplemental funding through FORHP-philanthropy partnership

Alabama

Part I: Organizational Information	
Grant Number	G07RH28866
Lead Grantee Organization	The Tombigbee Healthcare Authority
Lead Organization Type	Hospital
Address	105 Highway 80 East, Demopolis, AL 36732-3605
Grantee Organization Website	www.bwwmh.org
Care Coordination Grant Project Title	Rural Health Care Coordination Network Partnership
Project Director	Name: Michael Shawn Allen
	Title: Program Director
	Phone number: 334-287-2674
	Fax number: 334-287-2439
	Email address: msallen@bwwmh.com

Part II: Network Partners

*** Indicates consortium partners that signed a Memorandum of Understanding/Agreement**

Partner Organization	Location (town/county/state)	Organizational Type
Bryan W. Whitfield Memorial Hospital and Home Health*	Demopolis, Marengo County, AL	Hospital/Home Health
Travis Clinic*	Demopolis, Marengo County, AL	Clinic
Fitz-Gerald & Perret, Inc.*	Demopolis, Marengo County, AL	Clinic

Part III: Community Characteristics

A. Area

Four west Alabama counties - Greene, Hale, Marengo and Sumter.

B. Community Description

Across four rural west Alabama counties—Greene, Hale, Marengo and Sumter—chronic illnesses and social determinants of health plague the impoverished area. Described as "Alabama's third world", residents within the Alabama Black Belt region have higher rates of co-morbidities—such as diabetes, congestive heart failure and chronic obstructive pulmonary disease—due to environmental, sociodemographic, and behavioral factors such as smoking, physical inactivity, and poor nutrition. According to the original grant needs assessment compiled in 2015, a high percentage of the estimated 60,000 target population lives below the poverty level and also have high instances of unmet health needs. In addition, the supply of healthcare providers across rural Alabama is alarming. According to the Alabama Office of Primary Care and Rural Health in 2017, 62 of Alabama's 67 counties are designated as Primary Care Health Profession Shortage Areas either by geographic or low-income qualifiers. This is an increase in need from the original needs assessment conducted for the Rural Health Care Services Outreach, Rural Health Network Development and Small Health Care Provider Quality Improvement Grant Program in 2015, where only 59 of Alabama's 67 counties were considered Primary Care Health Profession Shortage Areas. All of the four counties targeted in this program have a Health Profession Shortage Area score of at least 17 on a scale of 1 to 25, which is above the national average of need.

C. Need

As a product of collaborative efforts by the Director of Nursing, local primary care providers and hospital administrative staff from the four-county service area, the program was designed to address the social, economic and environmental disparities which have caused the rates of chronic conditions, such as diabetes, Congestive Heart Failure (CHF) and Chronic Obstructive Pulmonary Disease (COPD), to rise in rural west Alabama. On a national scale, treating those individuals with chronic illnesses contributes the largest portion of healthcare spending within the market--most notably because those individuals have complex health needs—and in rural Alabama social deterrents of health create additional barriers to achieving better health.

In the project's service area of Greene, Hale, Marengo and Sumter Counties, the poverty rates are often more than double that of the national average of 15.1% and the Alabama state average of 18.4%—30.8%, 24.6%, 22.7% and 34.8% respectively, according to United States Census Bureau estimates (2015). The average income in the four-county project area--$27,445—is drastically lower than the national average of $55,322 and the Alabama average of $42,934. In addition, the racial makeup of the area is predominantly African American—averaged at 66% for all four participating counties. The availability of healthcare providers for the project service area—average of 2,863 individuals for each primary care physician—is at an alarmingly low rate in comparison with the state average of 1,530 individuals to each primary care physician. The region's population has also faced barriers in relation to transportation, food availability, health insurance coverage, education and employment.

These social determinants of health have had a devastating impact on the regions' population, increasing the prevalence and severity of chronic conditions and reducing both length and quality of life. In the project service area, an estimated 11% of the population have a current diagnosis of diabetes, 36% have a current diagnosis of hypertension and 5% have a diagnosis of coronary heart disease (Alabama Department of Public Health, 2010; County Health Rankings and Roadmaps, 2011; Chronic Disease in Alabama, 2004). An average of 45% of the project area's population has a BMI score of over 30, and approximately 32.75% of the area's population reports no leisure-time physical activity (County Health Rankings and Roadmaps, 2018).

As a response to this increasing epidemic, the Tombigbee Healthcare Authority, in partnership with local healthcare providers in the region, created the HealthStart Comprehensive Wellness Program (HCWP) in 2015. The HealthStart Comprehensive Wellness Program (HCWP) is a multi-faceted wellness program for patients with a primary diagnosis of Diabetes, Congestive Heart Failure and/or Chronic Obstructive Pulmonary Disease. Care Coordination services, administered through the Grants, Research and Outreach of West Alabama (GROWestAL) Department at Bryan W. Whitfield Memorial Hospital, have reached over 149 unique individuals during the less than three years of program operation. Serving patients from four west Alabama counties—Greene, Hale, Marengo and Sumter—HCWP works to reduce the impact of chronic conditions by implementing Care Coordination services to help reduce the fragmentation of services for patients while providing support mechanisms for local primary care providers in an aim to improve overall care for rural west Alabama.

Part IV: Program Services

A. Evidence-based and/or Promising Practice Model(s)

Using the Chronic Care Model, first developed by the MacColl Center for Health Care Innovation at Group Health Research Institute in the mid-1990s, the HealthStart Comprehensive Wellness Program (HCWP) has worked to identify, incorporate and improve the following elements of a health system: 1) the community; 2) the health system; 3) self-management support; 4) delivery system design; and 5) decision support (Improving Chronic Illness Care, 2018). Through the Chronic Care Model, quality improvement mechanisms—such as Care Coordination—are utilized. The Chronic Care Model looks at Care Coordination from the perspective of a Patient-Centered Medical Home (PCMH) in which it considers the major external providers and organizations with which a PCMH must interact—medical specialists, community service agencies, and hospital and emergency facilities—and summarizes the elements that appear to contribute to successful referrals and transitions (Improving Chronic Illness Care, 2018). By applying evidence-based research to a community-based approach based on local need, HCWP has used Care Coordination services to improve outcomes for patients with a diagnosis of hypertension, CHF and COPD.

In addition, HCWP has utilized the Diabetes Empowerment Education Program (DEEP) curriculum, administered by the Midwest Latino Health Research, Training and Policy Center, for diabetic education classes administered in six-week sessions. This evidence-based curriculum--which meets Standard 6 of the American Diabetes Association DSME Site Certification requirement—is comprised of the following modules taught by the RN Care Coordinator: 1) Beginning Sessions and Understanding the Human Body; 2) Understanding Risk Factors for Diabetes; 3) Monitoring Your Body; 4) Get Up and Move! Diabetes and Physical Activity; 5) Management of Diabetes through Meal Planning; 6) Diabetes Complications: Identification and Prevention; 7) Learning about Medications and Medical Care; and 8) Living with Diabetes: Mobilizing Your Family and Friends. This curriculum has been incredibly useful for our rural population as it was developed for use in low-income, racial and ethnic minority populations.

B. Description of Activities

Since the beginning of the Care Coordination Program, the HealthStart Comprehensive Wellness Program (HCWP) has served patients from four different provider clinics in the project service area: Hale County Hospital Clinic, Greene County Physicians Clinic, Travis Clinic and Fitzgerald Clinic. These four clinics serve patients from Marengo, Greene, Hale, and Sumter counties.

Through the original narrative, HCWP was designed and has worked to implement the following activities:

1. Improve accountability to decrease ambiguity in patient care;
2. Assist Primary Care Physicians (PCP) with communication and follow-up appointments;
3. Provide more effective referrals and transitions;
4. Help PCP practices to coordinate care;
5. Build relationships with all members of the patients' primary treatment team;
6. Improve connectivity by connecting treatment team providers in a holistic approach;
7. Improve tracking and referrals.

Operated through the West Alabama Rural Health Network (WARHN), a collaborative network of healthcare providers in the project's service area, the HealthStart Comprehensive Wellness Program has worked to implement the activities above during the three-year project funded by the Health Resources and Services Administration (HRSA) from 2015-2018. The program has operated through a mixture of one-on-one patient education through individualized and group settings as well as in working with providers to streamline operations for quality improvement of disease management for patients with the following diagnoses: diabetes, congestive heart failure (CHF) and chronic obstructive pulmonary disease (COPD).

One-on-one Patient Education

Care Coordination services have been offered and implemented by a Registered Nurse who is employed through the Tombigbee Healthcare Authority. The Care Coordinator devotes 1.0 FTE to the program and serves as a liaison between the patient and the primary care providers. Patients are referred to the program through their primary care provider and the program is at no cost to both patients and providers. Patients must live within the four-county service area and have a diagnosis of diabetes, CHF and/or COPD.

Office visits are made daily by the RN Care Coordinator to the physician offices for face-to-face encounters and patients are contacted at least monthly for continued support. The Care Coordinator offers assistance with regard to any aspect of health to provide a better quality of life for the participants, including being an empathetic listener concerning non-quantifiable aspects of patient care such as environmental and social factors that impact their health outside of the clinic. In addition, the Care Coordinator contacts patients at least once-per-month to follow up on coordination of care and helps explain their chronic conditions and answers any questions that they might have about their health or medications. In addition to the patient's coordination of care, educational mail outs are sent to each patient monthly. The Care Coordinator also makes referrals for patients to have the following services: eye exams, foot exams, echocardiograms, Meals on Wheels, public transportation services and insurance programs. Patients are also able to take part in group education classes specialized to their chronic condition. The largest of the classes has been for diabetic education and HCWP has utilized the DEEP curriculum to teach this six-week class.

Furthermore, the Care Coordination program has offered additional services for patients that participated in the program. Eligible patients—those who either cannot afford their medications or whose insurance does not cover their medication(s)—have worked with HCWP staff to receive Medication Assistance. Through the Medication Assistance facet of HCWP, eligible patients have been able to receive medications through the utilization of free or reduced-cost prescription assistance programs such as Outreach, needymeds.org and rxassist.com. The Care Coordinator helps the patient to find the right medication program, helps them to fill out or gather the required paperwork or materials, helps them keep up with refills, and answers any questions that they might have about the programs.

Provider Quality Improvement in Disease Management and Reporting

Since starting the Care Coordination program, we have helped the clinics to organize a better system to keep track of services for patients with chronic conditions. For example, since the program was initiated, it was realized that there was a need to be sure that examinations are kept current and available for providers to see for all patients. One participating provider decided to have exams scanned into patient charts. In response, the Care Coordinator makes referrals for eye or foot exam, echo, spirometry, etc. and retrieves records after patient visit is completed. She then shares this information with the Office Manager and information is scanned into each patient chart so that it is available for the provider to see next time they see the patient. The Care Coordinator keeps up with all patients enrolled to make sure that they all get exams done and reports these to office manager to double check for Physician Quality Reporting Measures (PQRS). In addition, materials have been distributed to participating providers about ICIC Care Coordination model implementation and patient outcomes are communicated to providers on a regular basis at clinic and de-identified data is communicated at monthly West Alabama Rural Health Network (WARHN) meetings.

The following PQRS metrics were tracked throughout the three-year program:

1. For Chronic Heart Failure:
    a. PQRS #5: ACE Inhibitor/ARB Therapy LVSD
    b. PQRS #8: Beta-Blocker Therapy for LVSD

c. PQRS #198: LVEF Assessment
d. PQRS #226: Tobacco Use Screening and Cessation Intervention

2. For Type 2 Diabetes:
   a. PQRS #1: Hemoglobin A1c Control in Diabetes Mellitus
   b. PQRS #2: LDL-C Control in Diabetes Mellitus
   c. PQRS #117: Dilated Eye Exam in Diabetic Patient
   d. PQRS #163: Foot exam for diabetic patient
3. For Chronic Obstructive Pulmonary Disease (COPD)
   a. PQRS #51: Spirometry Exam
   b. PQRS #52: COPD Bronchodilator Therapy
   c. PQRS #110: Influenza Immunization
   d. PQRS #111: Pneumonia Vaccination for Patients 65 and older
   e. PQRS #226: Tobacco Use Screening and Cessation Intervention

In addition, the following basic health indicators were also gathered and analyzed:

1. Systolic blood pressure
2. Diastolic blood pressure
3. BMI
4. Cholesterol

C. Role of Consortium Partners

Because of the nature of the program, the HealthStart Comprehensive Wellness Program has been run and administered through the West Alabama Rural Health Network (WARHN), which is composed of a network of healthcare providers across the program's service area. Although the network has experienced change throughout the three-year project, each member has brought invaluable experience to the group. The following network members are currently working with the program, and each network partner has been responsible for the following:

Bryan W. Whitfield Memorial Hospital and Home Health: Bryan W. Whitfield Memorial Hospital has been the lead consortium partner for the project. The HealthStart Comprehensive Wellness Program (HCWP) is housed out of the hospital, and all staff members associated with the project are employees of Bryan W. Whitfield Memorial Hospital. All West Alabama Rural Health Network (WARHN) meetings are hosted at the hospital and Bryan W. Whitfield Memorial Hospital is responsible for all program and grant-related reporting and provides administrative overhead for the program. In addition, the Bryan W. Whitfield Memorial Hospital Home Health Agency participates as a consortium partner.

Travis Clinic: Travis Clinic, a small primary care provider clinic located in Marengo County, serves patients from a seven-county service area across west Alabama. The clinic consists of one physician and two nurse practitioners and has a high patient census with a predominant diabetic population. The clinic serves as a consortium partner for the West Alabama Rural Health Network (WARHN) and provides referrals to the Care Coordination program for patients with a diagnosis of diabetes, CHF and COPD. The Office Manager of Travis Clinic serves as the Board Chair for the West Alabama Rural Health Network (WARHN).

Fitz-Gerald and Perret, Inc.: Fitz-Gerald and Perret, Inc., is a small primary care provider clinic located in Marengo County, serves patients from a seven-county service area across west Alabama. The clinic consists of two physicians and two nurse practitioners and has a high patient census. The clinic serves as a consortium partner for the West Alabama Rural Health Network (WARHN) and provides referrals to the Care Coordination program for patients with a diagnosis of diabetes, CHF and COPD.

The network will continue to build relationships with these partners to maintain a strong base. Future expansion of the network is possible once this base is strengthened.

Part V: Outcomes

A. Outcomes and Evaluation Findings

Since beginning of the Care Coordination Program, the HealthStart Comprehensive Wellness Program (HCWP) has received referrals from four different provider clinics in our service area: Hale County Hospital Clinic, Greene County Physicians Clinic, Travis Clinic and Fitz-Gerald and Perret, Inc. These four clinics serve patients from Marengo, Greene, Hale, and Sumter counties.

Of the 149 patients who received Care Coordination services as of June 2018, the following successes were shown: 1.1% decrease in average diastolic blood pressure from 82.8 mmHg to 81.7 mmHg; 4% decrease in average systolic blood pressure from 136.5 mmHg to 132.5 mmHg; 0.32% decrease in average HbA1C from 7.45% to 7.13%; 10.4 mg/dL decrease in total cholesterol levels from 179.8 mg/dL to 169.4 mg/dL; and finally, a 0.7 decrease in average BMI from 36.3 to 35.6. In addition, patients enrolled in the program have been able to fellowship with other community members who have similar chronic conditions, social, economic and/or environmental backgrounds, which has built sustainable support networks for these community members.

B. Recognition

The Care Coordinator for the HCWP Program was interviewed by the local newspaper in June 2018. The article, entitled, "BWWMH hosting diabetes course" was featured on the front page of the Demopolis Times newspaper and covered information regarding the Diabetic Education classes being held at Bryan W. Whitfield Memorial Hospital. The article included information on the purpose of the program, description of the classes and location and time of the classes. A phone number was also provided for people to call for questions and to sign up for the classes.

Part VI: Challenges & Innovative Solutions

Challenges with this program included the following: 1) transportation issues for patients; 2) health information technology platform; and 3) low participation from patients with CHF and COPD. The first challenge, patient transportation, has been a big barrier for patients to participate in programming. Because of the high rate of poverty in our area, many patients are limited in their transportation options. We have been holding diabetic, CHF and COPD classes at Bryan Whitfield Memorial Hospital since March 2018. Although this has been a hub for chronic condition education, we would like to expand our service options for patients with limited transportation through expanded partnerships with local primary care providers, local church groups and local community-based organizations. Health Information Technology (HIT) has also been a challenge during this program. The original scope of work included using a HIT platform, CareScope, which was implemented at the beginning of the program. This program was costly and the technical support capacity was not sufficient for the price of the service, and most importantly, the data was unable to be extracted for external evaluation. In July 2017, the Program Director and West Alabama Rural Health Network members decided to discontinue use of the CareScope program and a password-protected platform has been in use since that date as the primary data collection and evaluation method for program activities. In future program efforts, the Network would like to see more emphasis on cross-collaboration between electronic medical records to relieve the duplication of data entry between providers. Finally, the third obstacle encountered was low participation from patients with CHF and COPD. As stated in the original narrative, the HealthStart Comprehensive Wellness Program was intended to serve patients with a diagnosis of Diabetes, CHF and/or COPD. Recruitment among the last two diagnoses was more difficult than expected, and although individual education was given to those with those diagnoses, we did not meet the expected number because of low patient involvement. Overall, the HealthStart Comprehensive Wellness Program has served primarily diabetic patients and will aim to work with primarily diabetic patients after the program year has ended. In addition, to better serve those patients, the Tombigbee Healthcare Authority will—if funding allows—will contract with a Registered Dietician to provide Medical Nutrition Therapy to participating patients through the diabetic program.

Part VII: Sustainability

A. Structure

To adequately sustain program efforts after Year 3 funding has ended, the West Alabama Rural Health Network, on behalf of the HealthStart Comprehensive Wellness Program, has been looking into spreading Care Coordination services to additional providers in the Marengo County service area beyond the two providers who are currently network members. Because the program has experienced administrative and provider transitions over the last two years, provider buy-in has been limited outside of Marengo County and network members have taken this into consideration when building this sustainability plan. The network has gained considerable strength during Year 3, and the network would like to see programming gain support and strength within Marengo County before expanding services outside of the service area again. In addition, Diabetic Self-Management Education (DSME) designation will be pursued by one of the clinics who is a member of the network. The DSME site certification would allow the clinic to potentially expand the program to new sites around Marengo County and to surrounding counties, as there are seven counties within the catchment area that do not have an existing DSME program.

Finally, the DSME site certification would also allow the clinic to offer Medical Nutrition Therapy (MNT) to patients who participate in the program, an aspect which was not offered during this current program cycle. If funding allows, clinic will also contract with a Registered Dietician to provide MNT to participating patients in the program. As nutrition advice and counseling has been one of the most requested services during the diabetes education program and directly through Care Coordination services, the clinic

would like to offer this program to patients while also bringing another sustainable component to the existing program by billing for services.

The partners that will continue to be a part of the network are Bryan W. Whitfield Memorial Hospital, Travis Clinic and Fitz-Gerald and Perret, Inc. The network will continue to build relationships with these partners to maintain a strong base. Future expansion of the network is possible once this base is strengthened. The reason for including possible future partners in the surrounding area is to meet the need for care coordination and diabetic education.

B. On-going Projects and Activities/Services To Be Provided

i) Will all, some or none of the elements of the program be sustainable once Care Coordination grant funding has ended? Please check the appropriate selection.

☐ All elements of the program will be sustained
☒ Some parts of the program will be sustained
☐ None of the elements of the program will be sustained (i.e. the program will completely end after the grant period)

ii) Identify the projects and activities that will be sustained beyond the Care Coordination grant period.

In order for the program to continue to be sustainable, it is important to establish secure resources. Some examples that the program will continue in its next steps include: maintaining consistent leadership, maintaining a strong network, continued communication of the value of the program and securing stable funding.

The current Program Director, M. Shawn Allen, will lead the Network efforts to ensure the continuing efforts are maintained to keep the program moving forward. The Program Director—through the leadership of the West Alabama Rural Health Network--will continually evaluate and conduct regular reviews of project performance.

Currently, the West Alabama Rural Health Network meets monthly to review project performance as maintaining a strong network is vital to support the program and its advancement. The network plans to expand its membership as the program continues to progress to include members of the community, pharmacists and others in the healthcare field. The expansion of the membership will ensure a continued strong network as project performance is reviewed, including best practices, challenges and data evaluation.

Communication of the value of the program to members and others in the community is also important in establishing secure resources. The diabetic education classes and outreach components of the program are key in communicating the importance of this program as the Network will be continuing outreach and networking within the communities of Marengo County and further outreach in the surrounding counties.

Another step to securing resources includes secure and stable funding. The following funding strategies have been initiated: 1) Diabetic Self-Management Education (DSME) Site Certification through the American Diabetes Association (ADA); 2) Certified Diabetes Educator (CDE) certification for current Care Coordinator Leigh Autery; and 3) offering Medical Nutrition Therapy as a component of the future Care Coordination plan.

C. Sustained Impact

Providers have been working more cooperatively together through involvement in the Care Coordination program and through the West Alabama Rural Health Network (WARHN). The West Alabama Rural Health Network has monthly meetings to discuss program updates, Care Coordination updates, challenges, successes and the Sustainability Formative Assessment Plan, including Evaluation, Communication and Efficiency and Effectiveness. Providers learn valuable information from the Care Coordination reports and evaluation through these meetings and learn the impacts that the program has on patient health outcomes. A meeting book was developed for WARHN members and is discussed in all monthly meetings. The book contains all ICIC information, Special Reports and other information and is updated each month with all information that is readily accessible.

Several new working relationships have been established throughout the period of this project including relationships with local clinics, network members, program staff and local organizations. These new working relationships have proven to be very valuable in helping the program move forward. The relationships that have been established with local area clinics include: Hale County Clinic; Greene County Physician's Clinic; Travis Clinic; and finally, Fitz-Gerald and Perret, Inc. Although participation from two of the clinics was shortened, relationships with the remaining clinics are strong. Personnel at each of the clinics—including the

nurses and providers—go above and beyond to help the program move forward. The Care Coordination efforts have shown to be instrumental in impacting the way providers engage with their patients through collaboration between the Care Coordinator and the providers. In addition, providers have been able to improve their quality measures for the Medicare Access and CHIP Reauthorization Act (MACRA) and have been able to bill for more expanded chronic condition services as a result of the program.

Another relationship that has been established is the hiring of a new program evaluator, Dr. Lisle Hites, who was hired in March of 2018 to conduct the evaluation of program data. This decision to hire a new evaluator was based on the continued assessment of the program and was made to continue the ongoing successes of the program. He has joined the monthly WARHN Meetings and provided insight and suggestions, developed questionnaires for the program and regularly communicates with the program operating staff. In addition, the West Central Alabama AHEC is another relationship that has been established during the program period. AHEC has been a valuable networking partner for the program as it has provided resource guides for Marengo and Hale Counties. These resource guides offer information on food assistance, clothing, dental services, healthcare facilities and services, transportation and more. Through grant partnerships—most notably through our diabetic education and outreach components—we have mobilized community members across our four-county service area to become more involved in the program and more aware of the need for chronic condition management. Along with the outreach component, the participants in the diabetic education classes have been sharing the information about the classes among others in the community. Word of mouth has been proven to be a great way to let others in the community know about the program and the classes that are being offered.

The Healthstart Comprehensive Wellness Program (HCWP) has impacted the patient population's understanding of and ability to manage their chronic conditions through a combination of one-on-one care coordination efforts, chronic condition classes tailored to their diagnoses and also through provider care. The diabetic education classes have been an integral part of the patients understanding of what diabetes is, healthy eating, being active, monitoring their blood sugar, taking medication, reducing risks and learning how to cope through a diabetic support group that was established by the program. The evaluation results have shown improvement in the patient's health outcomes, including lower A1C's, weight loss and decrease in blood pressure. Surveys and questionnaires given to the patients during the diabetic education classes reveal that they understand how to manage their chronic condition in a more substantial way than before our education efforts.

The program has changed the perception in the community about what coordinated care is and how to access it. This has been accomplished through the face to face interactions, chronic condition education classes, provider care and outreach tactics. Communication and collaboration through these components have been an integral part in understanding the impact of coordinated care in rural Alabama, which is evidenced by the feedback from the patients enrolled in the program. Many patients have indicated verbally and through surveys and questionnaires how the program has helped improve their physical and mental health. For example, patients have stated how they enjoy participating in the weekly diabetic education classes and are able to engage in conversation with other participants. As the program moves forward, more patients have inquired about the program through the clinics and their providers to receive a referral to participate in the program.

Part VIII: Implications for Other Communities

Through it's less than three years in operation, the HealthStart Comprehensive Wellness Program has been able to make strides in care and outcomes for patients with chronic conditions. The experiences gained during this program are most likely not unique to west Alabama, however, there have been lessons learned throughout the course of the project that may help or inform other communities to successfully implement a similar program.

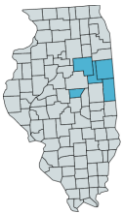
Overall, we have experienced common obstacles that are often associated with rural health care. First, community buy-in is incredibly important during this process. Because of the rural attributes of west Alabama, the HealthStart Comprehensive Wellness Program took almost three years to gain provider and community buy-in. Second, with limited resources and trying to create a sustainable program, HCWP staff had to be creative with advertising the program and hosting education classes. Support from the local community made it possible to host the classes at a very low cost. Advertising was done through email and Facebook and flyers were taken in conjunction with marketing efforts on behalf of other programs, which saved travel costs and staff time. Success for classes came mainly from provider referrals as well as word of mouth, which also helped with recruitment of patients into the program.

In addition, there are several qualitative measures/indicators that may be beneficial for other programs to consider when creating their programs as patient satisfaction has been an important component of this program. In addition, after working with patients and seeing the incredible successes they have had that may not all be represented in their clinical data, HCWP staff consulted with the independent evaluator to compose a patient satisfaction survey to give staff and stakeholders a more qualitative look at program

success. In response, a patient satisfaction survey was developed in 2018 to provide information and data on furthering the improvement efforts of the program.

Furthermore, a “Current” and “Past” questionnaire was developed which included topics covering general health, limitations of activities, social activities, pain and energy and emotions. The “Current” questionnaire was to be given monthly or quarterly to the active participants currently in the program. The “Past” questionnaire was to be given to the participants who had completed the program.

These qualitative surveys will be an integral component of the continued planning for the next program cycle and HCWP staff hope these ideas may be of use to future programs.



Illinois

Part I: Organizational Information	
Grant Number	G07RH28864
Lead Grantee Organization	Gibson Area Hospital and Health Services (GAHHS)
Lead Organization Type	Hospital
Address	1120 N. Melvin St Gibson City IL 60936
Grantee Organization Website	www.communitycarecoordination.org www.gibsonhospital.org
Care Coordination Grant Project Title	East Central Illinois Rural Care Coordination Program
Project Director	Name: Amanda McKeon
	Title: Director
	Phone number: 217-727-1054
	Fax number: 217-784-2044
	Email address: amanda_mckeon@gibsonhospital.org

Part II: Network Partners * Indicates consortium partners that signed a Memorandum of Understanding/Agreement		
Partner Organization	**Location** (town/county/state)	**Organizational Type**
*Gibson Area Hospital and Health Services (GAHHS)	Gibson City, Ford County, IL	Hospital
*Ford County Public Health Department	Paxton, Ford County, IL	Health Department
* Community Resource & Counseling Center (CRCC)	Paxton, Ford County, IL	Behavioral Wellness Center
*Board of Health, Ford County	Paxton, Ford County, IL	Board of Health
*County Board, Ford County	Paxton, Ford County, IL	County Board
Gibson City Melvin Sibley School	Gibson City, Ford County, IL	School
Iroquois West Community Unit School	Gilman, Iroquois County, IL	School
Paxton Buckley Loda School	Paxton, Ford County, IL	School
Blue Ridge School	Farmer City, Dewitt County, IL	School
Scott's Family Pharmacy	Gibson City, Ford County, IL	Pharmacy
Heritage Health Hoopeston	Hoopeston, Vermillion County, IL	Nursing Home
The Medicine Shoppe	Gibson City, Ford County, IL	Pharmacy

Part III: Community Characteristics

A. Area

The service area for the grant was rural Ford, Livingston, Dewitt, Iroquois, and Vermillion counties. These counties include the towns of Gibson City, Paxton, Elliott, Melvin, Piper City, Roberts, Sibley, Onarga, Buckley, Cissna Park, Gilman, Loda, Thawville, Fairbury, Forrest, Chatsworth, Strawn, Anchor, Arrowsmith, Bellflower, Colfax, Cropsey, Saybrook, Farmer City, Fisher, Ludlow, Foosland, Mahomet, Hoopeston, Potomac, Rossville, Armstrong, Rankin and Clarence

B. Community Description

The project has involved five rural counties in Central Illinois. Ford County has a 26 mile north-south chimney or panhandle shape that is 6 miles wide. The service area of Gibson Area Hospital and Health Services has clinics located in Livingston (clinics in Forrest and Fairbury) and Iroquois (clinic in Onarga) Counties on either side of the chimney/panhandle. The southern section of the county is adjacent to McLean, Champaign (clinic in Fisher) and Vermilion Counties (clinics in Hoopeston and Potomac). Ford County's clinics are located in Gibson City and Paxton. DeWitt County (clinic in Farmer City) is to the southwest of Ford County.

Gibson City and Paxton are primary population hubs for Ford County. There are four Gibson Area Hospital and Health Services (GAHHS) clinics in Gibson City and one in Paxton.

Railroads were an integral form of transportation to this area, as trains were for most in the westward expansion, building new communities, and to move people, supplies, and products. Areas identified in this service area were no different. Multiple railroad systems crisscross the area (north-south and east-west) and systems merged into others. Many rural communities and stations were formed to supply the fuel for the engines and flourished as transportation hubs. GAHHS clinics are located along these highways.

Public transportation, like in most rural areas, is limited. SHOWBUS has limited operational hours and is not a viable option for travel to employment, recreation or for basic needs. Gibson City Telecare is a transportation and social service provider in the southern section of the county. Ford County's population centers are located in southern section of the County. GAHHS, located in Gibson City, is the largest employer in the county employing over 650 people. Farmland and agriculturally based businesses are prevalent in this area. There are senior housing and long term care facilities located in Gibson City, Paxton, and Piper City. This area's senior population is higher than the state average.

C. Need

The need for this project was first identified by the Chief Executive Officer (CEO) and providers from Gibson Area Hospital. Barriers to services generally include: lack of availability; high cost; and, lack of insurance coverage. In the defined service area, an added challenge includes transportation. These barriers to accessing health services lead to: unmet health needs delays in receiving appropriate care, inability to receive preventive services, and hospitalizations that could have been prevented.

Disparities in access to health services affect individuals and society. Ultimately these barriers to care can have an impact on:

- Overall physical, social, and mental health status;
- Prevention of disease and disability
- Detection and treatment of health conditions
- Quality of life
- Preventable death; and
- Life expectancy.

Health care delivery improvement programs require partnerships among providers, local health care organizations, and the State. This project brought together all the elements needed to be successful and impact the barriers to care for residents in the defined services area. There was a commitment to pursue transformation to PCMH by primary care practices, a strong Consortium of community partners, and the establishment of a Referral Center to serve as a hub for care coordination services and activities. To impact change for the communities served requires long-term commitment. The partners in the Consortium all represent long-term members of the community and were committed to addressing these needs in the community.

Part IV: Program Services

A. Evidence-based and/or Promising Practice Model(s)

The following evidence-based models were used and served as foundations for the Care Coordination Program:

1. Patient Centered Medical Home
2. Partnerships Model
3. Health Information Technology Model
4. Community Health Worker: Care Coordinator/Manager Model
5. Community Organizer and Capacity Builder Model

B. Description of Activities

The focus of this project was to develop and formalize a program that delivered high-quality, high-value care coordination activities for patients with Type 2 Diabetes, Congestive Heart Failure (CHF), and Chronic Obstructive Pulmonary Disease (COPD). Gibson Area Hospital and Health Services (GAHHS) a Critical Access Hospital; Community Resource & Counseling Center (CRCC), a Behavioral Health Provider; and Ford County Public Health Department (FCPHD), a Public Health Provider, came together as members of the *East Central Illinois Rural Consortium*. These organizations continue to partner on projects that strengthen the Health Eco System for communities within the defined service area.

The goals and primary strategies of this Care Coordination Program were:

- Identify patients with Type 2 Diabetes, CHF and COPD and provide Care Coordination services facilitated by Community Health Workers (CHWs) within the Referral Center; Care coordination activities were determined by the care plan developed by the Personal Care Provider in conjunction with the patient.
- GAHHS's hospital-owned and hospital affiliated primary care practices (17 practices) served as locations for initiating care coordination activities; In an effort to support adoption of the Care Coordination Program, the practices became patient-centered medical homes (PCMHs) utilizing the NCQA PCMH 2014 Recognition Program
- "Whole-person" care is a concept that is a leading component of changes to healthcare delivery in the United States; thus, as a progressive organization, GAHHS's primary care practices through co-location arrangements partnered with CRCC to integrate behavioral health services. Patients with Type 2 Diabetes, CHF and COPD were provided enhanced opportunities and resources in order to meet the psychological and mental health needs associated with patients with chronic illnesses;
- Continue to build membership for the East Central Illinois Rural Consortium, a group of healthcare and health-related community resource organizations that patients will be referred to for health services, educational classes, support groups, and other resources and needed services (e.g., smoking cessation, nutrition classes, exercise programs; food pantry, transportation, etc.);
- Grow the "Referral Center" in order to better facilitate referrals to Care Coordination services utilizing Consortium members', both healthcare and health-related, to provide expanded and enhanced care coordination services and activities for the target population;
- The Referral Center was staffed with Community Health Workers (CHWs) that facilitated care coordination services for patients;
- Establish Electronic Health Record (EHR) sharing through interoperability among Consortium members, to the degree possible;
- Develop a Care Coordination program, utilizing the foundational concepts of the Centers for Medicare and Medicaid (CMS) Chronic Care Management program.

An adjunct goal of this project was to identify individuals that needed primary care services and through the Referral Center assist in locating a primary care provider (PCP). Through PCMH practices, there was enhanced and increased access to primary care, therefore ensuring individuals of all ages had the ability to select and visit on a routine basis a primary care provider (PCP). The PCP also had the opportunity to identify patients with Type 2 Diabetes, CHF, and COPD and refer them to the Referral Center in order to receive assistance with care coordination services.

C. Role of Consortium Partners

The East Central Illinois Consortium was formed in October 2014 and is comprised of members from Gibson Area Hospital and Health Services (GAHHS), the Ford County Public Health Department (FCPHD), and the Community Resource Counseling Center (CRCC). The Consortium was built on a Partnerships Model of care coordination (RHI Hub, Rural Care Coordination Toolkit) with the Referral Center serving as the hub for referrals, care coordination, resources, support, and education to meet the target populations' needs.

The Consortium included different agencies with unique strengths and resources that play a role in the care coordination program. A memorandum of understanding (MOU) was signed to formalize each organization's roles and responsibilities in the Consortium. Key roles and responsibilities of each Consortium member included:

- Providing staffing necessary to execute and oversee grant activities
- Providing training and technical assistance to collaborating organizations
- Serving as a steward of project funds
- Participating in a Consortium board of directors
- Protecting proprietary data
- Coordinating and addressing social service needs of program participants (e.g., patients), which includes housing, medication assistance, insurance, and transportation services
- Improving coordination of care transitions across organizations through protocols and agreements
- Utilizing the Referral Center to facilitate referrals for patients/clients to primary care and other services available to meet the needs of the patient/client; and, receive referrals from the Referral Center for services the Consortium member provides
- Developing reports of activities and participating in evaluation efforts
- Participating in sustainability activities

All members of the Consortium met quarterly. There were special sub-committees, such as the Care Coordination Program Sub-Committee for this project that met monthly. Due to travel distances and time availability, members sometimes attended meetings virtually utilizing electronic means such as GoToMeeting and/or Skype. Once a quarter, a meeting was conducted with members attending in person. The Community Health Workers also met with individual Consortium members on a regular basis.

Part V: Outcomes

A. Outcomes and Evaluation Findings

As a result of our efforts, four broad outcomes were evident: 1) a rural community became more aware of chronic diseases and the positive steps they could take to address them; 2) clinics were better able to serve their patients through the Referral Center and enhanced community resources; 3) 17 Family Medicine clinics were awarded Level 3 PCMH recognition from NCQA; and 4) interoperability was achieved between Consortium partners allowing for data sharing in support of program efforts.

The Care Coordination program delivered high-quality, high-value care coordination activities for patients with Type 2 Diabetes, Congestive Heart Failure (CHF), and Chronic Obstructive Pulmonary Disease (COPD). Patients of the Care Coordination program had the opportunity to benefit from receiving patient-centered, comprehensive, whole-person, evidence-based, coordinated care from their primary care provider; and, through the Consortium, had access to comprehensive, quality services, support, education, and resources from their community organizations. A Referral Center staffed by a Registered Nurse and Community Health Workers (CHWs) began accepting referrals for primary care and Care Coordination services and activities on January 1, 2016. A 24 hour referral telephone line was established, giving patients, physicians, and consortium members the opportunity to gain access to the Care Coordination program at their convenience. The Referral Center received over 500 calls ranging in needs from transportation to Chronic Care Management services. The Referral Center continues to grow and is looking to expand by hiring 3 more nurses to cover the large number of patients. The Care Coordination nurse and Community Health Workers have formed a workflow that encompasses all of the patient's needs. The first initial visit with the patient is a home visit. The CHWs have found this to be very eye opening and it helps them identify issues that would not be brought to their attention on an office visit. After the office visit the nurse works on a care plan for the patient and these goals are what the CHWs focus on. If the patient has two or more chronic conditions they are referred to Chronic Care Management. Regardless if the patient qualifies for CCM or not, the patients are still contacted on a monthly basis to discuss their goals and answer any questions they might have.

Gibson Area Hospital has also joined a MSSP Track 1 ACO. This ACO ties in very closely with the Care Coordination program and has helped to strengthen our relationship with our patients even more. Through the GPRO monthly abstractions, CHWs are able to identify Medicare Beneficiaries and really focus on getting their Medicare Wellness Visits scheduled. The Care Coordination Program uses Population Health to help identify pools of patients CHWs would like to start campaigns for. By identifying our sickest populations, we can help them by educating them on their disease process and connect them with any other needs they may have.

GAHHS hospital-owned and hospital affiliated primary care practices (17) achieved level 3 NCQA PCMH recognition from July 2016 to December 2017. These primary care practices began offering same day appointments, scheduling appointments outside typical daytime schedules, and providing clinical advice 24 hours a day. The patients have been extremely satisfied with the changes that took place over this transformation.

In efforts to ensure patients and community members were gaining access to services and means necessary to enhance their health, consortium members collaborated and communicated amongst each other to share information, resources, educational opportunities, health services, support groups, and other necessary services. Consortium members continue to identify patients and community members that could benefit from Care Coordination services at GAHHS, while the Care Coordination team continues to utilize and refer those in need of services to the resources offered by the CRCC and FCPHD. Interoperability was achieved in 2017 amongst the Consortium members and helped strengthen communication and data sharing between the Consortium members. It was achieved by training our Consortium members on the electronic health record (HER) used by GAHHS and having them sign a confidentiality agreement.

B. Recognition

Seventeen of our Family Medicine clinics were able to achieve level 3 NCQA PCMH Recognition.

All members of the Care Coordination team became Certified Case Managers through Indiana State University in March of 2017.

Part VI: Challenges & Innovative Solutions

The Care Coordination grant brought a lot of changes to GAHHS by introducing a lot of new concepts for patients, providers and staff. PCMH transformation within the clinics was a struggle in the beginning. The changes made within the clinic caused a lot of workflow challenges as well as issues with reporting in our EHR (i.e. discovering what boxes give credit for certain PCMH elements). While the education component of PCMH is still an ongoing challenge, it is becoming easier as staff began to difference this makes in patients' lives.

Provider and staff engagement in the Care Coordination Program was another struggle faced by the Care Coordination team on a daily basis. The way the Care Coordination team approached this problem was to lead by example and show staff and providers how Care Coordination was a great benefit to their patients.

Part VII: Sustainability

A. Structure

The East Central Illinois Rural Consortium will continue to exist as well as the Care Coordination Program. The Grant has given us the foundation to work upon. The Consortium is very beneficial to the patients and members as it gives everyone the ability to come together and discuss patients and come up with solutions. The Consortium members that will remain are the Ford County Public Health Department, Community Resource Counseling Center, and Gibson Area Hospital and Health Services.

B. On-going Projects and Activities/Services To Be Provided

i) Will all, some or none of the elements of the program be sustainable once Care Coordination grant funding has ended? Please check the appropriate selection.

☒ All elements of the program will be sustained
☐ Some parts of the program will be sustained
☐ None of the elements of the program will be sustained (i.e. the program will completely end after the grant period)

ii) Identify the projects and activities that will be sustained beyond the Care Coordination grant period.

The Care Coordination team will continue to market the Care Coordination program through health fairs, flyers, doctor office referrals and involvement in our Accountable Care Organization. Chronic Care Management was implemented as a result of the Care Coordination grant and will continue to grow as awareness increases. Transitional Care Management has also been implemented and has helped the growth of the Referral Center. Patient Center Medical Home has been the largest success of the Care Coordination grant. Seventeen clinics were given the recognition of a Level 3 PCMH and this transformation has increased patient satisfaction as evidenced by survey feedback. PCMH is an ongoing change and the clinics continue to adjust to standard changes and understand this is for the benefit of their patients. One of the biggest changes with PCMH was availability of appointments for already established patients. This gave patients the ability to call their doctor when they were sick and prevented them from having to go to another clinic or the emergency department to be seen by a doctor. PCMH has also led to more accurate charting that in turn has helped our group practice reporting option (GPRO) abstractions for our Accountable Care Organization, resulting in a 1.2% payment increase for 2019. Huddles have played a huge role in the communication among clinic staff since they meet every morning and discuss each patient that will be coming in. The Referral Center will be growing in the next few months by hiring three additional nurses to help meet the needs of patients and to take some of the work off the office nurses.

C. Sustained Impact

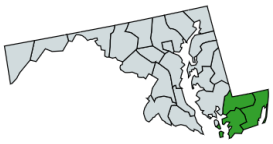
Consortium membership has remained stable with four (4) consistently active members including: Gibson Area Hospital and Health Services, Community Care Resource Center (also known as the Referral Center), Community Resource Counseling Center, Ford County Public Health Department, and Ford County Health Board. This Consortium has formed a strong alliance and works together to make a difference in the communities within the defined service areas. The Consortium meets every quarter, if not more, and discusses current patients that could benefit from services. This has helped to keep the lines of communication open and also identifies patients that may need more assistance. Currently the Consortium is focusing on social determinants of health and looking for impacts the Consortium can make around the community. The Consortium is constantly looking and applying for new grants as a way to improve the communities we serve. Interoperability has also helped the communication between the consortium members by allowing FCPHD and CRCC to have access to GAHHS' electronic health record (EHR). This

has allowed consortium members to find information they need as well as chart under “Community Resources” when they have been involved in a case.

The Patient Center Medical Home recognition work with the clinics will remain the largest sustained impact from the Care Coordination Grant. The transformation within the clinics workflow has helped the clinics remain a PCMH. The office staff have come together to better understand what everyone needs to do to make the office run smoothly. By everyone working to the top of their education level, it has positively impacted our patient population as staff are now able to spend more time with patients to understand and help them manage their chronic conditions. Population Health Management was also implemented as a result of the Care Coordination Grant. This has given the Care Coordination team the ability to run lists of patients that need screenings or are due for visits/follow-ups.

Part VIII: Implications for Other Communities

The Care Coordination grant was extremely challenging, but brought a whole new level of teamwork we didn’t know existed. Before this grant our hospital and clinics were divided. This grant has helped everyone come together to better support patients. One of the largest reasons for PCMH success was the strong leadership of the PCMH team. Without the dedication of office managers and staff dedication this would not have been possible. After several years of a grant it is very apparent one of the largest ways to make a grant succeed is the dedication and buy-in from providers and administration. Without a strong physician lead it is hard to sell programs to other providers. A solid workflow and identifying the need for Care Coordination services is key to the success of any program. If providers have the “It’s my patient” mentality it is difficult to make Care Coordination a success. Open-mindedness and a willingness to charge are key components to make Care Coordination a success.



Maryland

Part I: Organizational Information	
Grant Number	G07RH28862
Lead Grantee Organization	Worcester County Health Department
Lead Organization Type	Local Health Department
Address	6040 Public Landing Rd. Snow Hill, MD 21863
Grantee Organization Website	www.worcesterhealth.org
Care Coordination Grant Project Title	Community Based Chronic Disease Care Coordination
Project Director	Name: Tracey Age
	Title: Nurse Program Manager
	Phone number: 410-632-9915
	Fax number: 410-632-9902
	Email address: traceya.age@maryland.gov

Part II: Network Partners * Indicates consortium partners that signed a Memorandum of Understanding/Agreement		
Partner Organization	**Location** (town/county/state)	**Organizational Type**
Atlantic General Hospital	Berlin, Worcester County, MD	Hospital
Peninsula Regional Medical Center	Salisbury, Wicomico County, MD	Hospital
Chesapeake Health Center	Salisbury, Maryland (Offices in Somerset, Wicomico, & Worcester Counties)	FQHC
McCready Hospital	Crisfield, Somerset County, MD	Hospital
Wicomico County Health Department	Salisbury, Wicomico County, MD	Local Health Department
Somerset County Health Department	Westover, Somerset County, MD	Local Health Department

Part III: Community Characteristics

A. Area

The Community Based Chronic Disease Care Coordination program served Worcester County, Maryland

B. Community Description

Worcester County is a rural county nestled on the Lower Eastern Shore of Maryland, along the coast of the Atlantic Ocean. Although mostly rural with a population of 51,451 (2010 U.S. Census), the county's population fluctuates seasonally as it is home to a beach resort town. Worcester County's average household income of $57,227 is lower than the state average of $76,067. Worcester County's median population age (49.4 years) is higher than that of the statewide median population age (38.3 years). Worcester County is a retirement destination for many Marylanders, contributing to the rising aging population within the county. Approximately, 27.3% of Worcester County's population is 65 years or older, compared to 14.9% for Maryland. Therefore, when assessing the health needs of Worcester County residents, it is expected to find a greater incidence of chronic illness among this aging population.

Worcester County Health Department (WCHD), comprised of nine sites, provides a large portion of medical care and case management services to the local community. WCHD is the largest behavioral health provider in the county, working closely with local community providers to provide comprehensive care. WCHD's Community Health-Adult Services Division is home to Maryland Access Point (MAP), an aging and disability resource center. MAP of Worcester County provides community resources and linkage assistance to aging adults and caregivers to help them remain healthy and in the community.

C. Need

Chronic disease is the leading cause of death, disability, and health care cost in Maryland. Chronic disease prevalence, poor health outcomes and the economic impacts of chronic disease are greater in the rural Lower Eastern Shore counties (including Worcester County) compared to Maryland as a whole. Residents in the three lower counties are older, have lower incomes, and are more likely to be uninsured than the Maryland population overall. Additionally, the region includes health professional shortage areas and medically underserved areas and populations. Navigating the healthcare system and inability to afford adequate insurance coverage are barriers that many older Worcester County residents face.

The target population for this program were adult residents in Worcester County, with a diagnosis of diabetes, chronic obstructive pulmonary disease (COPD), and/or congestive heart failure (CHF), and who were identified as in need of care coordination activities extending beyond that offered by traditional or existing models of discharge planning or office/phone based care coordination from the Patient Centered Medical Home (PCMH) providers. These individuals were identified by our hospital and primary care partners due to a pattern of frequent emergency department (ED) use, frequent hospital readmissions and lack of consistent and appropriate use of primary care. Prior to this program's effort, these clients continued to cycle through hospital EDs because they were not receiving adequate support after discharge to self-manage their diabetes and medication regimen. The traditional healthcare delivery methods were not sufficient in managing the needs of these high cost chronic disease clients.

Part IV: Program Services

A. Evidence-based and/or Promising Practice Model(s)

The Community Based Chronic Disease Care Coordination (CBCDCC) program utilized an adapted version of the Johns Hopkins' Guided Care Model for Chronic Disease to provide care coordination services. This model has proven to improve the quality and access to health care services and to improve disease self-care, thus improving clients' overall health and ability to manage their chronic illness. Utilizing an interdisciplinary team consisting of a Registered Nurse, Licensed Social Worker, and Community Health Outreach Worker, a majority of the care coordination services are provided in the clients' home. The care coordination components include the following: assessments, care plan development, chronic disease self-management education, communication with primary care providers and specialists, educating and supporting caregivers, facilitating access to community resources, transportation to medical appointments, and continued monitoring of clients' progress in meeting established health goals. By providing these services within the clients' home, the team was able to assess the barriers and challenges faced by the client while attempting to manage their healthcare needs. This model increases the clients' knowledge of their disease and symptoms, helps to set health related goals, and utilize the health care system more appropriately.

B. Description of Activities

The main goal of the program was to provide care coordination services for clients diagnosed with Diabetes (DM), Congestive Heart Failure (CHF), and/or Chronic Obstructive Pulmonary Disease (COPD), including comprehensive in-home assessment and linkage to resources to address medical and social determinants of health. Working in collaboration with community medical providers, the Community Based Chronic Disease Care Coordination (CBCDCC) team worked to improve enrolled clients' overall health, reduce Emergency Department visits and hospital admissions, and to improve the client's ability to self-manage their chronic illness.

The CBCDCC team implemented an interdisciplinary approach to care coordination to facilitate increased access to health care services and utilization through preventive interventions. A care coordination team composed of a Registered Nurse, Licensed Social Worker, and Community Health Outreach Worker provided services in the clients' home to facilitate improved comfort for the client, to assess the home environment, and to better address actual social determinants of need. The interventions included a comprehensive assessment/plan of care, medication reconciliation, individual chronic disease education, referral to primary care and specific chronic disease care, social support resources, transportation to medical appointments, and linkage to financial and social supports.

C. Role of Consortium Partners

Worcester County Health Department (WCHD) was the lead agency, responsible for the provision of services for the Community Based Chronic Disease Care Coordination (CBCDCC) program. Network partners supporting this program included Atlantic General Hospital, Peninsula Regional Medical Center, McCready Memorial Hospital, Chesapeake Health Care, Wicomico County Health Department, and Somerset County Health Department. In addition to leading the program, WCHD coordinated bi-annual meetings with the network partners to share program outcomes, discuss challenges, and explore potential collaborative efforts to improve the health of Worcester County residents. Although network partners, representing community medical agencies were

unable to provide financial support, they were integral in the planning of the program, and provided CBCDCC program referrals, feedback and assistance to increase accessibility, and worked together to strengthen relationships between agencies.

Part V: Outcomes

A. Outcomes and Evaluation Findings

The overall goal of the Community Based Chronic Disease Care Coordination (CBCDCC) program was to reduce chronic disease related Emergency Department visits and acute care admissions by improving chronic disease self-management of enrolled clients. During Year One of this program, the CBCDCC team provided care coordination services for 125 clients and in Year Two provided services for 88 clients. Due to the efforts of this program, enrolled clients have:

- reduced A1C levels,
- decreased Emergency Department visits,
- increased preventive care visits, and
- decreased medical expenses for clients and the healthcare system.

These improvements in the use of the healthcare system provides savings to clients and the local community. Significant savings were captured by our local health information exchange system, Chesapeake Regional Information System for Our Patients (CRISP). Within a 3-month period after CBCDCC clients were enrolled in the CBCDCC program, CRISP's Pre/Post Analysis tool calculated a health care savings of $733,577. The overall improved health of these clients has enabled them to remain in their homes safely and better able to adequately manage their chronic disease.

B. Recognition

Nothing to report

Part VI: Challenges & Innovative Solutions

Prior to this grant, Worcester County Health Department (WCHD), in partnership with Somerset County Health Department and Wicomico County Health Department led a pilot program providing care coordination services to clients with diabetes in Somerset, Wicomico, and Worcester Counties. WCHD's initial grant application proposed to continue to provide care coordination services in Worcester, Wicomico and Somerset Counties, expanding program eligibility to include clients with chronic obstructive pulmonary disease (COPD) and congestive heart failure (CHF). This proposal was contingent on supplemental monetary support from network partners to support the salaries of an additional interdisciplinary team. Although the program was highly valued by the network partners, additional support was not available to continue the original project, therefore WCHD reduced the program's service area to Worcester County only.

The advent of this program also coincided with WCHD's adoption of a new electronic health record (EHR) system. The EHR selected provided multiple challenges related to monitoring grant goals/outcomes, adequate reporting system, and limited options for case management documentation. The EHR was designed to primarily support clinical and behavioral health documentation. Through intensive IT support, the CBCDCC program made modifications within the new EHR for effective documentation.

Discussions within the partner network prompted the CBCDCC program to use the local health information exchange system, Chesapeake Regional Information System for Our Patients (CRISP) to enhance client related communication between healthcare partners. CRISP provides the ability to access hospital admission data, receive notifications when a client is admitted to the hospital, monitor prescription drugs, and capture healthcare savings data. WCHD's IT department embraced the challenge of getting the new EHR and CRISP to communicate successfully, thus improving communication and setting a program standard for other WCHD programs. Due to the diligence of WCHD teams, supportive network partners, and a knowledgeable HRSA grant support team, the technical challenges initially faced by the CBCDCC program resulted in an enhanced system that greatly improved healthcare communication.

Part VII: Sustainability

A. Structure

The network of partners contributing to this program are participants of the Local Health Improvement Coalition (LHIC). These partners will continue to meet to review community health statistics, share program information, and develop collaborative efforts to address the community's health needs. The network partners recognize the importance of long term, expanded care coordination services and each partner is committed to embracing any feasible opportunity that may support the provision of expanded care coordination services.

B. On-going Projects and Activities/Services To Be Provided

i) Will all, some or none of the elements of the program be sustainable once Care Coordination grant funding has ended? Please check the appropriate selection.

☐ All elements of the program will be sustained
☒ Some parts of the program will be sustained
☐ None of the elements of the program will be sustained (i.e. the program will completely end after the grant period)

ii) Identify the projects and activities that will be sustained beyond the Care Coordination grant period.

The full, comprehensive services provided by the CBCDCC program's interdisciplinary team will not be sustained beyond the grant period. Our network partners will support clients within a hospital or FQHC network by providing Patient Centered Medical Home (PCMH) care coordination services. Worcester County Health Department (WCHD) is able to provide support for a 0.5 FTE Registered Nurse to provide short-term care coordination and resource linkage to clients identified in WCHD's Community Health Adult Services program. The nurse will provide disease self-management education, referral to primary and specialty care, and linkage to social support resources. The Community Health Outreach Worker, also funded by WCHD, will continue to provide transportation to medical appointments, thus increasing access to care for this population.

C. Sustained Impact

The most significant impact produced by this program was reducing ED utilization and improving the self-care management of clients with diabetes, congestive heart failure, and chronic obstructive pulmonary disease. Worcester County Health Department (WCHD)'s partners also identified the impacts seen by their respective agencies including: decreased ED utilization, increased access and compliance to preventative medical care, improved relationships with community providers, and improved knowledge of resources provided by WCHD.

Improved communication between agency providers developed as a by-product of the Community Based Chronic Disease Care Coordination (CBCDCC) program. Since the advent of the CBCDCC program, the two local hospitals, Atlantic General Hospital and Peninsula Regional Medical Center, and Chesapeake Health Care (FQHC) have initiated/expanded their Patient Centered Medical Home (PCMH) programs. These programs are now providing office-based nurse care coordination services. Although not directly responsible, the CBCDCC program was a large contributor of health information and resources within this web of intra-agency communication. Both at an agency leadership level and care provider level, these agencies communicate on a regular basis, either through routine community meetings and client coordination.

The CBCDCC program embraced the use of the regional Health Information Exchange (HIE), Chesapeake Regional Information System for our Patients (CRISP). This program was the first program within Worcester County Health Department to upload client care coordination information to the exchange network. Sharing client information enabled health partners to identify specific clients receiving CBCDCC care coordination services. The CBCDCC program also utilized CRISP's Pre/Post Analysis of health care dollars spent before and after client enrollment with a specific program. WCHD's agency partners are also initiating enrollment and further development within the CRISP system. This expansion of shared medical information will further our community's efforts to avoid duplication of health care services and improve communication to enhance the delivery of health care.

Also, partially attributed to the CBCDCC program, the network partners have a better understanding of the services provided by Worcester County Health Department and other community agencies. While providing resource education for clients, the CBCDCC simultaneously educated healthcare partners who were unaware of available community resources. WCHD has also taken the lead in the community by propelling support for the "Network of Care" system that provides online resource access for community members and providers.

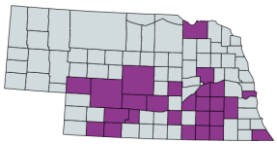
Specific components of the CBCDCC program have made a significant influence on our partners' view of full service health care. Partially due to the CBCDCC program, our hospital partners have an increased value of an "in-home" assessment. The CBCDCC team has been able to capture a realistic understanding of the challenges within the home environment that potentially impact the health of the enrolled clients. The multi-disciplinary team links clients to resources in effort to reduce or eliminate the "in-home" challenges. The local hospital care coordination teams are limited to "in-office" care coordination and report a greater appreciation of the services that reach into the clients' homes. Atlantic General Hospital (AGH), valuing the "community-based" team approach has invested financial resources to enhance their own Patient Centered Medical Home program. AGH contracts with Worcester County Health Department to provide a multi-disciplinary team (nurse, social worker, community health outreach worker) to expand PCMH's reach beyond the hospital system's walls.

Discussion with agency partners also identified transportation to medical appointments as a significant contributor to the success of CBCDCC clients' improved health status. In the future, WCHD's Maryland Access Point (MAP) program has the ability to support access to medical care by providing limited transportation services, however this grant's end will greatly deplete this service. Unfortunately, our rural area offers few affordable options for transportation. Clients with Medical Assistance will utilize the MA Transit system for transportation to medical appointments, however could spend an entire day on the transit system for one appointment. This is not feasible for some clients with chronic diseases. Worcester County Commission on Aging has recognized this barrier and is currently assessing the needs and potential options for improvement. This obstacle will remain the focus of Worcester County Health Department's Adult Services programs as well as agency partners.

Part VIII: Implications for Other Communities

The evidence-based Guided Care Model proved to provide successful results for the Community Based Chronic Disease Care Coordination (CBCDCC) program. The combination of a Nurse, Social Worker, and Community Health Outreach Worker provides a multi-disciplinary team that has the ability to address a wide array of medical, financial, social, and environmental issues that prevent clients from accessing medical care. The individual talents and expertise that each discipline brings to the team, provide a comprehensive approach to reduce barriers to health care access. Due to the success of this model, WCHD has replicated this team strategy in several other health department programs.

An important consideration when developing a care coordination program, is the lead agency's billing capabilities. In order to adequately and independently sustain care coordination services, the agency needs to be able to bill Medicare for care coordination services. WCHD faced several obstacles due to local health departments in Maryland being unable to bill case management CPT codes.



Nebraska

Part I: Organizational Information	
Grant Number	G07RH28865
Lead Grantee Organization	Southeast Rural Physician Alliance
Lead Organization Type	Rural Physician Network
Address	995 E. Hwy 33, Ste. 2, Crete, Nebraska 68333
Grantee Organization Website	www.SERPA-NE.org
Care Coordination Grant Project Title	Rural Health Care Coordination Network Partnership Program
Project Director	Name: Janet Steffen
	Title: Director of Clinical Care Coordinator
	Phone number: 402-826-3737
	Fax number: 402-826-3746
	Email address: jsteffen@serpa-aco.org

Part II: Network Partners * Indicates consortium partners that signed a Memorandum of Understanding/Agreement		
Partner Organization	**Location** (town/county/state)	**Organizational Type**
Bloomfield Medical Clinic, P.C.*	Bloomfield, Knox County, Nebraska	Rural Clinic
Butler County Clinic, P.C.*	David City, Butler County, Nebraska	Rural Clinic
Central Nebraska Medical Clinic*	Broken Bow, Custer County, Nebraska	Rural Clinic
Columbus Family Practice *	Columbus, Platte County, Nebraska	Rural Clinic
Columbus Medical Center*	Columbus, Platte County, Nebraska	Rural Clinic
Falls City Family Practice, P, C.*	Falls City, Richardson County, Nebraska	Rural Clinic
Family Medical Center of Hastings *	Hastings, Adams County, Nebraska	Rural Clinic
Fillmore County Medical Center*	Geneva, Fillmore County, Nebraska	Rural Clinic
McCook Clinic, P.C.*	McCook, Red Willow County, Nebraska	Rural Clinic
Midlands Family Medicine*	North Platte, Lincoln County, Nebraska	Rural Clinic
Plum Creek Medical Group, P.C*.	Lexington, Dawson County, Nebraska	Rural Clinic
York Medical Clinic, P.C.	York, York County, Nebraska	Rural Clinic
Family Practice Associates P.C.*	Kearney, Buffalo County, Nebraska	Rural Clinic

Part III: Community Characteristics

A. Area

SERPA-ACO started with 11 rural clinics and increased to 13 during the grant period. The counties in Nebraska that were part of the network consisted of: Adams, Buffalo, Butler, Custer, Dawson, Fillmore, Frontier, Gosper, Hamilton, Hitchcock, Howard, Jefferson, Keith, Knox, Lancaster, Lincoln, Nuckolls, Platte, Polk, Red Willow, Richardson, Saline, Sarpy, Seward, Thayer, and York.

B. Community Description

Our communities are in rural Nebraska, representing many of the counties in the southern part of the state. Rural areas in Nebraska are experiencing an aging population due to the increase in the number of youth that are migrating to urban areas. The population 65 and older in the service area is 19.45%, significantly higher than the state rate of 13.9%. As these citizens age, their healthcare needs become both more prevalent and more critical and the rate of diagnosis of both diabetes and cardiovascular disease increases dramatically. Due to fewer young people staying in the communities and an older population of health care

providers, the availability of healthcare providers is also decreasing. The average age of rural practitioners is older compared with urban areas, and with many expected to retire in the coming years, communities are struggling to recruit and retain younger providers to replace them. Nebraska has a rapidly growing minority population increasingly comprised of persons of Hispanic/Latino origin. In certain pockets of the service area, namely Dawson and Saline counties, Hispanic populations make up 32.3% and 21.9% of the total population respectively. Many of the clinics in the network have meat packing plants that employee large numbers of Hispanics/Latinos. This population has a high incidence of diabetes. The growth of this population brings unique challenges to the rural areas for related to socioeconomic issues and language barriers. This has created a burden on the rural clinics by creating a need that is difficult to meet as there is a severe shortage of healthcare workers with the cultural and linguistic skills needed to provide to this population. Nebraska ranks 46th out of the 50 states with a disparity value of 36.1 as compared to the number one state of 15.5. Residents of rural areas typically have a lower education level and lower income than their urban counters, an independent risk factor that increases the burden of disease both on the population and on the already fragile rural healthcare system.

C. Need

This program was designed to address the needs of rural Nebraska to reach patients that have a diagnosis of diabetes and/or congestive heart failure. Due to Nebraska being primarily a rural state, the need for a care coordination program became evident. Rural areas are experiencing an aging population, and the accompanying increased disease burden that comes with it. One in 6 adults have a diagnosis of diabetes, and heart disease is the second leading cause of death.

The increasing population of Hispanics/Latinos in rural areas bring unique health challenges and socioeconomic needs. Many people in this population do not have a primary provider. English is a second language for this population and that creates a burden for the rural healthcare clinics. Rural clinics struggle to find trained healthcare translators and bilingual/bicultural health care providers.

Part IV: Program Services

A. Evidence-based and/or Promising Practice Model(s)

SERPA-ACO adopted the North Carolina Coordinated Care model. This model did not work as well with the clinic setting, as it was more hospital based and more structured than we wanted for our program. SERPA-ACO adapted this model to fit our needs. We worked with each clinic within the network to create a team-based care model, where the clinic staff understood the role they played in the PCMH. Care Coordinators became the point of contact for patients/family members. They followed their patients with diabetes and CHF on regular basis. The care coordinators reached out to other services/agencies within their communities to improve patient care, including hospitals and specialists to improve communication. The clinics worked to develop long-term continuous relationships with their patients to help them understand their disease process and to encourage participation in their care, with the hope of intervening with evidence-based care to prevent complications.

B. Description of Activities

The grant allowed SERPA-ACO to help the clinics in the network develop and grow their care coordination programs. SERPA-ACO accomplished this by providing training to the care coordinators at meetings and on an individual basis. Training consisted of helping the clinics develop protocols and workflows for their diabetes and congestive heart failure programs. Methods of training included:

- Providing speakers for care coordinator meetings to cover topics related to:
  - Diabetes: How to Create a Diabetic Meal and Understanding Carbs
  - Understanding Diabetes
  - Developing relationships with your diabetic and CHF patient/family members
  - Transition of Care workflow and policies
  - Chronic Care Management workflows and policies
  - Decreasing ER visits and Hospital Readmissions
  - Understanding CHF and intervening in their disease process to prevent hospitalization
  - Motivational Interviewing for the High-Risk Patient/Diabetes
  - Representatives from community programs/agency to connect their high-risk patients to
  - Cultural competency training
  - How to track the high-risk diabetic or CHF patient
  - Monitor and reviewing of the project's qualities measures

- Using care coordinators from clinics within the network to train other care coordinators and provide shadowing opportunities with those clinics that have developed a good workflow and more unified program.
- Webinars were used to educate professional staff members at the clinics on the role of care coordination, importance of proper risk coding, and a variety of other topics.

C. Role of Consortium Partners

SERPA-ACO clinics involved in the PCMH initiative made up the care coordination Network for this grant. SERPA-ACO was the lead grantee for the Rural Care Coordination grant and the fiscal administrator. SERPA-ACO worked with each clinic in developing a Care Coordination Program. Each clinic was responsible for hiring care coordinators to meet the needs of their patient population. The clinics developed their policies and procedures for the program with the help of SERPA-ACO. SERPA-ACO provided different methods of training and resources for the clinics as they built their care coordination programs.

Part V: Outcomes

A. Outcomes and Evaluation Findings

Outcomes that we have seen from the results of our Care Coordination grant are numerous. Each clinic in the network started with either no care coordinator at all or a staff member working part time in this role. Since the beginning of the grant, clinics have added at least one to three full time care coordinators. Some of the clinics have also added social workers, CHW's, diabetic educators, and clinic data specialists. The clinics report that they are seeing an improvement in relationships between the provider's team and patients/families with patients being more willing to participate in their care. Patients are responding to phone calls and letters that are sent out by the clinics for reminders of missed routine visits and follow up visits on their disease related issues, particularly diabetes. The Network clinics have approximately 6523 diabetic and CHF patients. Due to the inability to collect accurate data it is estimated that approximately 80% of these patients are touched by the care coordinators.

The clinics have developed new ways of organizing and delivering care, improving quality processes, assessing patient needs, developing referral systems, and goal settings. Some of have clinics have worked with their local hospital and developed a working relationship with them that was not there before the start of the care coordination program.

The Network clinics have achieved shared savings by being part of a PCMH with a private insurer. This savings are due mainly to the work that the Care Coordinators are doing to prevent re-hospitalizations and ER visits. Also, the care coordinators work with their diabetic patients and CHF patients to meet quality measures to improve their disease state.

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B. Recognition

One of the clinics worked with their local hospital to create a better relationship that would benefit their patients. A video was created to educate their patients that the hospital and clinics are working together to create a smooth transition of care from the hospital to home. This clinic still meets with the hospital on a quarterly basis to discuss workflow and any problems that may arise. Another clinic received newspaper recognition for working with a local dietician at their HyVee store to develop programs for diabetics. These programs covered topics like *Holiday Cooking for the Diabetic Patient* and *Learning how to buy low carb food*. This same clinic also received an article in their local newspaper about their Care Coordination Program/Patient Centered Medical Home.

Part VI: Challenges & Innovative Solutions

Data Collection was a big challenge for the Network. A data base to collect aggravated data has been a challenge to the Network due to having eight different EHR's within the network. Collecting data from the care coordinators on the patients that they touch daily was met with resistance. The time involved with tracking ethnicity, race, age, and type of insurance has added an increase burden on their time spent with patients. SERPA-ACO developed an excel spreadsheet to try to help the care coordinators by spending less time collecting data.

Communication between the network clinics was a challenge. We used Basecamp as a means of sending out information, a place for clinics to ask questions of others, schedules for meetings, webinar presentations, etc. It also has a function allowing us to upload information about evidence-based care, power points, and other resources. We found that several of the clinics were not using this, so we increased training on the use of Basecamp.

Getting providers to come on board with all the changes that they needed to make to create a valuable working care coordinator program was difficult. We convened physician meetings to discuss issues that we are having, review evidence-base practices, look at quality measures and discuss workflow to improve what we are doing.

Staffing issues and turnover rate of care coordinators were challenges to the network. We encouraged the clinics to look at their care coordinator team as an entity separate from the nursing staff and encouraged them not to pull the care coordinators away from their positions. We also tried to increase training at the SERPA-ACO to encourage staff retention.

Part VII: Sustainability

A. Structure

SERPA-ACO and the 13 network clinics will continue to engage with each other in the Care Coordination Program after the grant has ended. There are also 3 urban clinics that are not included in the grant but are part of SERPA-ACO. The Network clinics and SERPA-ACO are dedicated to continuing with a care coordination program. The Network clinics feel that this has been a valuable program that has improved the health of all the patients, decreased health costs, and engaged the patient and/or family members in their healthcare.

B. On-going Projects and Activities/Services To Be Provided

i) Will all, some or none of the elements of the program be sustainable once Care Coordination grant funding has ended? Please check the appropriate selection.

☒ All elements of the program will be sustained
☐ Some parts of the program will be sustained
☐ None of the elements of the program will be sustained (i.e. the program will completely end after the grant period)

ii) Identify the projects and activities that will be sustained beyond the Care Coordination grant period.

All the clinics within the network have developed work flows, policies and programs that they have committed to continue after the grant has ended. The staff at SERPA-ACO has added a clinical data specialist this past year to work with the clinics in pulling their own data, creating templates and shortlist in their EHR. The network has eight different EHR's that create difficulty in pulling data. This position also helps the clinics understand their quality measures. This position has been very valuable to all of those in the network and to the SERPA staff.

Programs that have been created as listed in the "Sustained Impacts" section will continue. Clinics and SERPA-ACO will continue to work on new activities and services that the clinics identify would be helpful in maintaining the care coordinator program. We will continue to also work with developing referrals with specialty care and community services. We feel that educating our patients about community services that are available to them is very beneficial to their disease state. All the clinics are looking to expand their staff to include more care coordinators, diabetic educators, social works/CHW, and clinical data specialist.

SERPA-ACO works continuously with clinics to improve their quality processes, assessing patient needs and goal setting. One aspect of the PMCH that we have found push back in is developing care plans. This is because the thought is that care plans do not really improve patient care. The provider creates a plan of care in their office note and care plans are difficult to keep up-to-date. We are continuing to work with the clinics on this.

The clinics in the network believes that the development of a care coordination program/PCMH has been very beneficial to patient care by keeping the patient and providers involved in their care regularly, instead of just when the patient has a problem or needs to be seen for a medication follow up.

SERPA-ACO and the Network clinics created workflows and policies for billable codes such as Transition of Care, End of Life discussion, and Chronic Care Management. SERPA-ACO worked with government and private insurers to provide coordination fees to manage their patients. These fees help sustain the care coordination program in the clinics. SERPA-ACO will continue to look for grants to help fund the Care Coordination programs in the Network Clinics.

C. Sustained Impact

The sustained impacts from the Care Coordination grant will have a long-term effect on the SERPA-ACO network clinics. These clinics have created care coordinator programs and have added positions in their clinics to meet the needs of their program. Positions that have been added include more care coordinators, diabetes educators, social workers/CHW, and clinical data specialists.

The clinics feel that because of the Care Coordinator program they are seeing a better working relationship between the nurses and the providers, patients, families and the provider, and the nurse/care coordinators. Providers are spending more time with their patients and putting emphases on wellness and preventive health. Care coordinators are reaching out to the patients to follow up on their high-risk conditions, triaging patients that have either been to the ER or discharged from the hospital. Because of these engagements with the patient and/or family, the patients are noticing that their doctor is becoming more interested in their personal health issues, and what the impact of their provider being part of a patient center medical home has on their relationship. This has also impacted the whole clinic in the way that they are providing better health care.

Some of the clinics have added diabetic classes or pre-diabetic classes as another means of meeting their patients' needs with diabetes. These classes have been a positive addition to the clinics that are providing these programs. Patients have been happy to attend meetings that are in their provider's clinic with the provider available to them. One of our clinics has started a weight loss program. They are seeing good participation in this program. Many of the clinics in the network also attend health fairs or have booths at their local fair to promote the awareness of diabetes and their patient center medical home (PCMH). Clinics are reaching out to community services/agencies to engage them with their patient. We are seeing that through these efforts that the community is becoming more aware of the changes in their doctor's clinic by becoming more engaged in their health care.

All the clinics in the network have created new policies on diabetes. We have found that our population of CHF patients is very low since most of our patients with this diagnosis see a specialist. For most of the clinics, they have found that working with a specialist is difficult to get them to change the way that they practice medicine. Workflows have been created to develop a more seamless and integrated program for their patients by involving all staff members in this program. Many of the providers meet daily with their staff to discuss their patients for the day. Some of the clinics have all staff meetings monthly to discuss their coordination efforts to provide a better care coordination/PCMH program.

SERPA-ACO has worked with all the network clinics to provide infrastructure for data collection. We have worked with individual clinics to help them create their own collection of data from their EHR and to created templates and workflows in their EHR. We have created Excel log sheets for the care coordinators to collect information on touches that they have had with their patients and Excel log sheet for them to use for tracking their Chronic Care Management (CCM) program.

Clinics have developed new ways of organizing and delivering care, improving quality processes, assessing patient needs, developing referral systems, and goal setting. We believe that these are accomplishments have been possible because of the grant.

Part VIII: Implications for Other Communities

SERPA-ACO is recognized throughout the medical community of PCMH's and ACO's in Nebraska. We feel that the care coordination program has developed into a very successful vehicle for providing quality health care. Our diabetic program went through many changes over the period of the grant. Initially, the care coordinators tried to provide diabetic education but many of them were not well educated in diabetes or had the time. This lead to frustration with many of the coordinators and consequently a high turnover rate. In order to develop a program, some clinics hired Diabetic educators, started diabetic classes, pre-diabetic classes, and worked with their local hospitals that had diabetes programs. We feel that these programs and staff positions were very valuable in increasing the community's awareness of diabetes and PCMH.

SERPA-ACO believes that, with the clinics working so closely together to meet quality measures, creating new workflows, improving patient care, and decreasing the cost of health care, these efforts have made a difference in our communities. Our patients are aware of these changes that we are making to help them with their disease processes.

SERPA-ACO feels that working on quality measures that monitor diabetes are beneficial for patients and a good place to start when starting a PCMH/care coordinator program. This helped the care coordinators focus on one disease process first and to get to know their patients. We also believe that working on decreasing ER visits and decreasing re-hospitalization quality measure are also an important area to focus on. These represent high cost areas to the healthcare systems.

Congestive Heart Failure is another disease process that we were to focus on, but we do not seem to have many patients that were managed at a family medical practice level. The thought for this is that family medical practitioners were not diagnosing these patients, and that they were being seen by a specialist. This is why an effort to work with specialists has been important to the success of this program.

New York

Part I: Organizational Information	
Grant Number	GO7RH28861
Lead Grantee Organization	Chautauqua County Health Network (CCHN)
Lead Organization Type	Rural Health Network
Address	200 Harrison St., Suite 200, Jamestown, NY 14701
Grantee Organization Website	www.cchn.net
Care Coordination Grant Project Title	Chautauqua Health Connects
Project Director	Name: Ann Morse Abdella
	Title: Executive Director
	Phone number: 716-338-0010 x1202
	Fax number: 716-338-9740
	Email address: abdella@cchn.net

Part II: Network Partners * Indicates consortium partners that signed a Memorandum of Understanding/Agreement		
Partner Organization	**Location** (town/county/state)	**Organizational Type**
Brooks-TLC Hospital *	Dunkirk/Chautauqua/NY	Hospital
UPMC Chautauqua *	Jamestown/Chautauqua/NY	Hospital
Westfield Memorial Hospital *	Westfield/Chautauqua/NY	Hospital
Chautauqua Hospice and Palliative Care *	Lakewood/Chautauqua/NY	Hospice
Jamestown Primary Care *	Jamestown/Chautauqua/NY	Primary Care
The Chautauqua Center *	Jamestown & Dunkirk/Chautauqua/NY	FQHC
The Resource Center *	Jamestown/Chautauqua/NY	Primary Care Clinic
TLC Healthcare *	Forestville/Chautauqua/NY	Primary Care Clinic
Tri-County Family Medicine *	Gowanda/Cattaraugus/NY	Primary Care
Chautauqua County Health Network *	Jamestown/Chautauqua/NY	Rural Health Network

Part III: Community Characteristics

A. Area

Chautauqua, Cattaraugus, and southern Erie Counties, New York

B. Community Description

Chautauqua County, the western-most county in New York State, is home to a strong agricultural base, abundant natural resource amenities, and small-town charm. Located in the northern tier of Appalachia, the economy is specialized in agriculture, forestry, fishing, hunting; manufacturing, and educational services. The population has continued to decline over the last 50 years while the poverty rate has steadily increased. There are approximately 129,000 residents, 18.9% of whom are 65 years or older, 15.2% are disabled, and 7.5% are veterans. The population is somewhat more diverse than many similar sized rural communities with minority populations constituting 12.4% of the makeup of the county. Additionally, there are two nearby Seneca Nation Indian reservations and three thriving Amish communities. The median income is $43,211, with unemployment averaging 6.1% and 19% living below the poverty line. The region is challenged by the high incidence of chronic diseases such as diabetes, cardiovascular and pulmonary diseases, and depression, which as the population ages continues to increase. Access to health care remains an issue as Chautauqua holds three county-wide health professional shortage area (HPSA) designations: Primary Care Medicaid Eligible Population, Dental Care for the low-income population, and Mental Health Medicaid Eligible Population. According to the *2017 County Health Rankings and Roadmaps*, Chautauqua ranked 58 out of 62 counties in New York State for Health Outcomes, 56 for Length of Life, 62 for Health Behaviors, and 19 for Clinical Care.

C. Need

The Chautauqua Health Connects (CHC) Care Coordination Project was designed to enhance care coordination for individuals with Diabetes (DM), Congestive Heart Failure (CHF), and Chronic Obstructive Pulmonary Disease (COPD). Poor behaviors, personal choices, and select occupations have contributed to the problem of chronic disease in Chautauqua County relative to tobacco use, food choices, physical inactivity, and environmental exposure. Hospital use data suggest that these diseases could be better managed with providers and patients working together to plan for and proactively coordinate care. For example: the age adjusted hospital admission rates for diabetes is 12 per 10,000 population with overall emergency department (ED) rates of 28.5/10,000 and long-term complications of diabetes of 13.5/10,000, both of which are the highest in Western New York (WNY). Similarly, the age-adjusted hospitalization rate for heart failure is 22.2/10,000 with age-adjusted adult ED rates due to CHF of 12.7/10,000, which is almost triple the NY state average of 4.8/10,000. (NYS SPARCS 2012-14). Chautauqua County has a high percentage of adults who smoke (27.8%), much higher than the state average (16%). The age-adjusted hospitalization rate for adult COPD is 14.4/10,000 with ED rates of 40.2/10,000, more than double the NY state average of 16.2/10,000. (NYS SPARCS 2014-16).

Part IV: Program Services

A. Evidence-based and/or Promising Practice Model(s)

The goals of the program include relationship and capacity building among the 11 partners, integrating Health Managers in the 6 practices, and creating a Community Health Team to support the practices and their patients. To achieve this, a blend of evidence-based models related to care coordination were chosen by the Network for development and implementation. The following models were used by the CHC initiative:

ProvenHealth Navigator (PHN): The PHN model trained Health Managers (HM) through xG Health Solutions to provide care coordination services to moderate risk patients in an effort to provide earlier interventions that might prevent or delay patients from becoming complex ill. Developed by Geisinger, the goal of PHN is to provide care across the member's lifespan and health care needs using integrated population management. The HM training curriculum includes modules on patient populations and stratifications, workflow redesign, identifying and managing targeted conditions including DM, CHF, COPD, and managing referrals to services that make up the medical neighborhood. The model involves population risk stratification and segmentation using predictive modeling, with an emphasis on preventive care, and focusing on those most at risk. Based on this risk segmentation, different level interventions are deployed including preventive care, disease management, and case management. CCHN focused on applying PHN program principles to train HMs to serve moderate risk patients.

Vermont Blueprint for Health (VBH): VBH offered a promising practice in the form of a Community Health Team (CHT), a multidisciplinary team that partners with primary care offices, hospitals, and existing health and social service organizations with the goal of providing citizens with the support they need for well-coordinated preventive health services and coordinated linkages to available social and economic support services. CHT provides primary care patients with more direct and unhindered access to diverse staff such as nurse care coordinators, social workers, counselors, dieticians, health educators, and others. The CHT functions as extenders of the primary care practices they support and their services are available to all patients. There was no CHT training for VBH available, so the team structure emerged out of the needs of each hospital community. Using background materials on VBH, the Network conducted some informational interviews and "tutored" itself in the team design.

Choices for Life (CFL): CFL is one component of the High Desert Medical Group's Connection for Life Program that yields a multidisciplinary, continuum-based approach to health care delivery that proactively identifies populations with, or at risk for, chronic medical conditions. The mission and vision of CFL is to empower patients and their families to make choices related to their disease processes, to support them as they experience the reality of a progressive life-limiting disease, and to provide comfort and support to patients and their loved ones with the help of a dedicated team of healthcare professionals trained in the delivery of Palliative and Hospice care. Patients and their families are encouraged to discuss and make decisions in advance about their preferences for treatment when an illness begins to affect their quality of life. While many elements of CFL were already in place, they were not organized or deployed in the same manner as the CFL model. The expectation was that existing services could be deployed in a more systemized and structured way that can yield better results for patients and their families. Working from the existing MacColl Institute Care Coordination Framework, the project added the three parallel steps of the Connections for Life program as they relate to advance care planning: Communication for Life, Caring for Life, and Choices for Life.

B. Description of Activities

Activities for the CHC project supported goals targeted at 1.) Partnership development, 2.) Capacity building to coordinate care, and 3.) Creation of a countywide Community Health Team (CHT). Partnership development has included: quarterly meetings; development of Business Associates Agreements; collaborative planning-evaluation, strategy, and sustainability plan developed; adoption of clinical measures by the Clinical Integration Committee and Integrated Delivery System Board; and expansion of chronic disease registries. Capacity building has included: training Health Managers and supporting them through collaborative learning; enrollment and coordination of care for 400-500 moderately ill patients diagnosed with DM, CHF, and/or COPD; administration of patient and provider satisfaction surveys, as well a Care Coordination Capacity Survey; assessment of patients for risk; creation of referral forms and definition of new workflows; and establishment and use of secure messaging and referral utilities. CHT creation included the formation of the group; development and dissemination of a services Resource Guide; development of new outpatient support services based on primary care recommendations; and evaluation of reimbursement options for sustainability based on return on investment.

C. Role of Consortium Partners

Each Consortium member signed a joint Memorandum of Agreement to assist in building and implementing the *Chautauqua Health Connects* (CHC) integrated system of care coordination service delivery. Each agency appointed a liaison; participated in project development and dissemination; contributed to data collection and tracking; and assisted with assessment, strategic, and sustainability planning. Each organization signed an individual Agreement of Service with CCHN to implement specific clinical and operational strategies to promote care coordination as part of their quality improvement program. In general, they all agreed to participate in collaborative system development, clinical transformation of service delivery, staff and organization capacity building, continuous quality improvement, enhanced internal and external communication, consumer engagement, and partnership networking.

PCP responsibilities included but were not limited to: establishment of Business Associates Agreements (BAA) with Consortium members; designation and training of a RN Health Manager; outreach, enrollment, and coordination of care for at least 75-100 moderate risk to complex ill DM, CHF, and COPD patients; construction of a care coordination framework; redesign of work flows; development and insertion of Disease State Action Plans and billing templates in EHR; development and insertion of structured clinical data entry referral reports; documentation of electronic referral process workflow; sharing of advance care plans across the Network; attendance at Consortium planning and Community Health Team meetings; facilitation of internal staff meetings; and participation in survey/data collection and evaluation.

Hospital responsibilities included but were not limited to: establishment of BAA's with Consortium members; identification, development, and implementation of at least 1 new, non-reimbursed hospital delivered disease management service based on a gaps in care analysis (target delivery of 40 units of each service); creation of a fee structure for the new service; development and implementation of a referral process for the new service; management, tracking, and reporting of referrals from primary care partners; sharing of advance care plans across the Network; provision of semi-annual updates for the Resource Directory; designating and training two RN's each to complete Care Coordination and Transition Management program through the American Academy of Ambulatory Care Nursing; attendance at Consortium planning and Community Health Team meetings; facilitation of internal staff meetings; and participation in survey/data collection and evaluation.

Hospice responsibilities included but were not limited to: establishment of BAA's; designating and training one RN to complete Care Coordination and Transition Management program through the American Academy of Ambulatory Care Nursing; identification and development of one support service to aid in care coordination for the targeted population; promotion of that new service; use of PDSA to improve service implementation; provision of reports on enrollment and tracking of project participants; provision of semi-annual updates for the Resource Directory; sharing of advance care plans across the Network; attendance at Consortium planning and Community Health Team meetings; facilitation of internal staff meetings; and participation in survey/data collection and evaluation.

CCHN responsibilities included but were not limited to: establishment of BAA's with Consortium members; provision of leadership for planning, design, implementation, evaluation, and sustainability; business and financial agreements; project administration and oversight; coordination of trainings; development of IT and referral linkages; assistance in training on the use of the local Health Information Exchange (Direct); compilation, dissemination and maintenance of the Care Coordination Resource Guide; training in use of the Health Care Proxy Registry; facilitation of meetings, such as Network Partnership, Community Health Team (CHT), Health Managers (HM), Learning Collaboratives, Clinical Integration Committee, and HIT Committee; and analysis and summaries of data collected to network organizations.

Part V: Outcomes

A. Outcomes and Evaluation Findings

The outcomes that *Chautauqua Health Connects* (CHC) was hoping to achieve included improving relationships and understanding of partner roles, services, and value across the network, improved care delivered by primary care providers, and improved patient access to community based services including disease management programs. CHC's evaluation strategy was based on the Care Coordination Measurement Framework from *AHRQ's Care Coordination Atlas* using a two-pronged process to assess changes to the system (Mechanisms) and perceptions about the changes (Coordination Effects). The following evaluation tools were developed and applied to monitor and assess changes where possible.

Assessing Mechanisms for Achieving Care Coordination: This was to be measured using two tools. CCHN adapted the *Value Based Health Care Strategic Planning Tool* from the University of Iowa (Rural Health Value Learning Action Network) into a Care Coordination Capacity Survey to measure changes in interrelated and co-dependent organizational capacities to deliver coordinated care. And second, a Health Managers Program Evaluation was used to look at changes in the patient care delivery process (work flow) –baseline to current state. Unfortunately, the baseline workflow mapping did not occur in Year 1due to capacity limitations within the network. There are assessments slated to take place as part of building the Care Coordination Framework during the extension year following the original grant funding period.

Highlights of positive changes to date include movement toward population health management process improvements in the areas of referral, communication, quality improvement, visit planning, and patient satisfaction.

Mechanisms for Achieving Care Coordination	**Shift toward Fully Developed and Deployed**	
Capacity Survey	**Year 1 (Baseline)**	**Year 3**
Defined CC policies and mapped CC referral network	16%	63%
Defined transition process between patient and specialists	33%	88%
Use of PDSA's	25%	75%
Patient Satisfaction Assessments	33%	75%
Pre-visit planning for Complex Patients	8%	63%

Assessing Coordination Effects: Here system coordination change has measured experience from three perspectives - satisfaction surveys from patients and providers, as well as comparing clinical outcome and service utilization data.
Measures of success were to include improved Patient Activation Measure (PAM) scores and clinical outcome measures in PIMS, reduced hospital use, increased numbers of health care proxies and referrals to palliative care, and increased internal agency capacity (self-reported) to coordinate care. There is evidence that the system of care has changed over the last three years with increased awareness, growth in care coordination capacity, and better collaboration and communication. The data show that there have been improvements on some clinical quality measures and overall satisfaction where data has been available.

Highlights of positive changes to date include an increasing awareness by both patient and provider that they are a team in managing chronic disease and that when working together, they are starting to see improvement on key clinical measures.

Assessing Care Coordination Effects	**Year 1 (Baseline)**	**Year 3**
Satisfaction Surveys	**Average Total Points Earned-higher is better**	
Patient	Average 48.6 out of 80	Pending
Provider	Average 39.7 out of 151	Pending
Clinical Data	**Aggregate Measure Scores**	
Diabetic Eye Exams	33.9%	43.1%
Diabetic Foot Exams	50.7%	60.9%
Nephropathy	39.9%	74.3%
CHF: Tobacco Assessment and Cessation	76.5%	87.5%
COPD: Tobacco Assessment and Cessation	68.7%	74%
Inhaled Bronchodilator	79%	93.7%
Advance Care Plans	26.9%	30.4%

In addition to the above data points, other activity highlights that were realized during the grant period include:

- the training of 7 Health Managers;

- the startup of a Physician Champion Workgroup focused on improving Advance Care Planning and Shared Decision-Making;
- decreased mortality as part of the local Million Hearts®, CHQ 250 initiative, and Cardiac Strategy population health improvement initiatives (resulting in decreases of 10/100,000 for all coronary heart disease and 5/100,000 for stroke deaths);
- meetings with eye care specialists and PCP's to improve screening and reporting that resulted in a grant for retinal imaging cameras;
- formation of a countywide Care Coordination coalition;
- new services including Cardiac and Diabetes Navigation, Diabetes Prevention Program, and Hospice intake services for referred patients;
- 8 clinical performance measures aligned with payer contracts; and
- readmission rates are down for both Medicare and Medicaid enrollees.

B. Recognition

CCHN was honored to receive recognition as one of seven Rural Health Champions nationally at the HRSA/FORHP Community Based Division All Programs Meeting in February 2018. CCHN won in the category of *Impact* for adoption of the Collective Impact Model as a framework for multi-sector planning, alignment, and change that is showing positive impacts on heart disease outcomes. CCHN also received honorable mention in the category of *Innovation in Health Care Delivery*.

Part VI: Challenges & Innovative Solutions

Identify challenges experienced during your Care Coordination program's development and implementation and describe how these challenges were addressed.

Due to a variety of circumstances beyond the Consortium's control, portions of the *Chautauqua Health Connects* (CHC) project were stalled for several months, and in some cases, for the duration of the project. These issues included: two hospital mergers, one hospital bankruptcy, and one practice acquisition; competing federal and state system transformation activities such as MIPS, State Innovations Model, DSRIP and Health Homes; incompatible or limited technology platform; and constant staff issues- illness, retirement, and turnover within CCHN as well as the Consortium.. Because of the integrated design of this project, each challenge had a ripple effect on the whole care coordination process that resulted in suspension of hospital care management service delivery development and deployment, as well as causing a slowdown in patient engagement and enrollment.

Mergers, Acquisitions, and Organizational Changes: At the time of this grant application submission, 4 local community hospitals were signed onto the CHC Consortium; now there are three. All but one hospital was in a state of flux throughout the entire contract period. One hospital was embroiled in Chapter 11 bankruptcy proceedings from 2014 – 2017, dissolved its partnership with another community hospital in 2015, and then merged back under a new name in 2018. There is an additional merger planned with a large regional system in the near future.

During the same time, another hospital announced its plans to integrate with another large, out of state hospital system in December 2015, completed a full asset merger in December 2016, and staffing and programs have been in transition since that time.

The significance of the organizational changes and leadership coming from out of the area has had an impact on the local facilities' abilities and interests to continue to work on developing their respective new care coordination service that was part of the grant. CCHN had several group and one on one meetings with facility staff and leadership in late 2016 through much of 2017 to update and re-engage; administrators and staff have continued to change over time and CCHN staff have continued the re-orientation process.

Concurrent with the hospital mergers, several PCP's in the county were being acquired by hospital systems starting in 2014. One of the CHC Consortium PCP's is in the acquisition process and will complete its ownership change to a subsidiary on August 1; this is a process that began over a year ago. And three other Consortium members changed administrative leadership during the course of the grant. CCHN has remained supportive and diligent in reorientation as staff have been working through and acclimating to their respective organizational changes.

Competing Transformation Initiatives: Simultaneous to business affiliation changes, there were massive transition initiatives underway at the state and federal levels related to clinical transformation and payment reform. In April 2015, MACRA was approved and New York State Department of Health (NYSDOH) launched Year 1 of the Medicaid Delivery System Redesign Incentive Payment (DSRIP) Program, a CMS initiative. In 2016, NYSDOH launched the four year State Innovations Model (SIM), another CMS initiative, to reform

payment in the commercial and self-insured markets. There has been a heavy focus on primary care population health management to reduce hospital use and improve clinical outcomes. This subjected all Consortium members to a variety of competing priorities that were programmatically and temporally misaligned. To compound the situation, our 11 Consortium members were split between two different regional DSRIP systems. Throughout the project, CCHN has advocated for and created as much alignment across measures and activities as possible, working with the Consortium to try to leverage common goals with marginal success. Change fatigue became too much for many. One practice withdrew from the project in December 2016, four of the nurses who had been trained and several other members of the Consortium team either quit, fell ill, or had their positions eliminated during the course of the grant. As a result of all the change, operating budgets for PCP's were tight and not a single participant was able to make care coordination duties a routine practice in their facilities. Despite training and assistance with business planning, implementation of Chronic Care Management services, and use of the CCM billing code, providers have been very slow to adopt due to documentation requirements and patient reluctance to enroll due to the co-insurance requirement. Staff turnover made it a challenge to recruit and maintain patient engagement.

Data Systems and Aggregating Measurement: Challenges in this area included difficulty extracting data from multiple incompatible EHR systems, changes in all hospital EHR and Hospice systems, and major changes with the two contracted health information exchange vendors that were working on the grant. A cornerstone of the project was setting up an electronic system of secure messaging and referral for patient support and self-management services among Consortium members. The product application that was in use and targeted for further expansion during this grant ceased operations in 2016. As a less expensive and much more sustainable alternative, efforts focused on shifting use and building capacity to Direct Secure Messaging which was integrated into most certified EHR softwares on the market. The providers in the CHC Consortium used 7 different EHR systems -3 hospital, 3 physician, and 1 Hospice; each product was, and remains, at different levels of Direct Messaging deployment and ability to integrate. The Regional Health Information Organization was able to provide access to Mirth mail accounts for CCHN and Hospice to connect with the PCPs to partially solve the issue; the hospitals were all unable to participate due to EHR limitations and/or "lighting up" this capability as a new workflow that was a low priority for administration.

Finally, there were four main issues related to data aggregation. First, the CHC Work Plan and Evaluation had been written based on an assumption that all patients within the integrated delivery system would be part of the project cohort. It was not until Year 2 in preparation for the first round of PIMS reporting, that it became evident that tracking and evaluation were driven solely by the much smaller subset of patients enrolled in the Care Coordination program. Second, it had been anticipated to use claims as part of reporting, however CCHN did not have claims for all of the population involved in the grant, so it has not been possible to calculate the the CMS Chronic Care Ambulatory Care Sensitive Composite score nor Medication Reconciliation Post Discharge measures measures. And, the CAD measures don't lend themselves to meaningful evaluation due to low denominators. Third, there is a natural "flux" in patient enrollment and attrition across the multiple practices that has made measurement of aggregated improvements difficult to ascertain on a population wide basis. Fourth, our data warehouse vendor re-wrote several software applications between mid-2016 and 2017 rendering the automated data reports anticipated for use in the work plan unusable until early 2018. As an interim solution, manual chart audits were conducted to produce performance reports.

Part VII: Sustainability

A. Structure

Moving forward, the consortium will continue to be led by CCHN. CCHN will continue to encourage creative and lasting collaborative relationships among health providers in Chautauqua County; ensure that CCHN receives regular input for continued research and development of evidenced-based strategies; and ensure that future projects address the care coordination framework of the network that has been developed during this grant period and previous grants.

It is expected that all of the remaining Consortium members (five PCP, three hospitals and Hospice) will continue to work together in addition to expanding care coordination integration efforts to include CCHN's sister organization, the Chautauqua Integrated Delivery System (IDS); seven (7) additional PCP's, 1 or more cardiology, pulmonary, and/or ophthalmology practices; and 2-4 new Community Based Organization (CBO) partners such as the Office for the Aging, Office of Mental Hygiene, Lung, and/or Blind Associations. Over the next 3 years, CHC will expand from 10 partners to 20 or more. Behavioral Health will be added as a chronic condition for management across the network. Activities are underway to leverage and align other clinical transformation efforts such as SIM and DSRIP to adopt the same constructs coming out of the CHC Care Coordination Project, i.e. every PCP will have a Care Coordination Framework upon which to build their unique internal workflows that can integrate with the rest of CHC.

The CHC Consortium will continue to operate using the Collective Impact framework and seek to ensure that the 5 conditions of success are met including common agenda, shared measurement systems, mutually reinforcing activities, continuous

communication and backbone support organization. As the backbone support organization, CCHN will plan, manage and support initiatives using the communication structure of Collective Impact described below. It nurtures relationship building through transparency, continuous communication, and collaborative learning.

The CHC Consortium partners will continue to meet with leadership representatives from each participating agency throughout the extension year, with activities and reporting gradually being folded into the CHC Collective Impact Meeting and Communication schedule starting in 2019, with complete integration into the larger network by 2020. Consortium partners will also continue participation in standing network committees and workgroups as described in the chart below. This will be crucial to staff buy-in, adoption of workflow changes, standardizing the clinical transformation process, and agency accountability for system responsibilities/operations.

Chautauqua Health Connects - Collective Impact Meeting and Communication Schedule	
Committees/Workgroups/Touch Points	***Meeting Schedule***
CCHN/IDS/AMP Boards	Quarterly
Physician CI Committee	Quarterly
Contracting and Finance Committee	Monthly/Quarterly
HIT Committee	Quarterly
Medical Management	Monthly
Practice Managers	Monthly
Care Coordinators	Every other month
Long Term Care Council	Quarterly
Citizen Advisory Board	Quarterly
Cares Coalition (Advance Care Planning)	Quarterly
Health Homes	2-3x annually
Medent and Allscripts User Groups	3-4 x annually
Partner In-servicing/Training	As needed
Data Feedback, Work lists, Performance Reports	Quarterly; ongoing
Staff Outreach	Ongoing; as needed

B. On-going Projects and Activities/Services To Be Provided

i) Will all, some or none of the elements of the program be sustainable once Care Coordination grant funding has ended? Please check the appropriate selection.

☐ All elements of the program will be sustained
☒ Some parts of the program will be sustained
☐ None of the elements of the program will be sustained (i.e. the program will completely end after the grant period)

ii) Identify the projects and activities that will be sustained beyond the Care Coordination grant period.

As part of the Sustainability Plan development process, the CHC Consortium identified a number of projects and activities that are targeted for continuation, mostly related to scaling out the PCP Care Coordination framework and Health Manager Model, along with broader use of secure messaging and referral to the larger IDS network. While work will continue to meaningfully engage hospitals, it seems unlikely in the short-run that the hospitals will be providing disease management support services. It is more likely that they will continue to focus on transitions after acute discharges and participate more in referring patients out to existing community based services rather than taking in referrals.

The most important work that will continue includes building the Care Coordination Framework, development of the standardized referral template, improving communication with the use of the Communication Matrix and Collective Impact Schedule, engaging CBO's in referral systems for support services, and monitoring transformation progress using the Care Coordination Capacity Survey. Activities identified from a value based perspective include creating appropriate workflows to code for new/additional services (Transitional Care Management Services, Chronic Care Management

Services and Intensive Behavioral Therapy among others) and analyzing data for Return On Investment (ROI) to justify allocations of FTE's to Care Coordination and clinical performance outcomes for payers.

Technical assistance will continue to be provided to support the adoption and use of Opt-to-Quit Tobacco Use Cessation policy and processes as well as Direct Secure Messaging among the hospitals, PCPs, and partnering CBO's. Embedded EHR templates for disease specific assessments and self-management action plans will continue to be used and extended to additional PCPs in the future.

CCHN has already begun and will continue to transition budget support to the Chautauqua Integrated Delivery System (IDS) for staff to provide ongoing technical assistance for data flow, HIT/Direct Messaging training, care coordination framework development, practice transformation, and workflow redesign. CCHN will continue to provide administrative support, program development, and evaluation, as well as vet future grant opportunities that support achievement of network goals. By way of example, CCHN is currently seeking opportunities to develop a consortium of CBO's, perhaps in the form of an Independent Practice Association or Management Services Organization, that can contract with payers to support clinical providers in more systemically addressing the Social Determinants of Health for patients; this is being led by the Citizen Advisory Board (CAB).

CAB is a committee of CCHN with broad representation from health serving CBO's and governmental agencies across the county. CAB is charged with making recommendations to the CCHN Board concerning policies, practices and program initiatives that will provide for quality, affordable, accessible health care while promoting optimum health and wellness for all the people of Chautauqua County. CAB is of particular importance to the extension of services into the community and meaningful engagement and integration of CBO's into the care delivery system.

The challenge everywhere is to generate enough resources to dedicate staff to support the delivery of education and coordination services. Efforts are underway with three different payers to determine how value based contracts might be structured to support these enabling services. Internal to the IDS, consideration is being given by both Committee and Board leadership to hold participating provider organizations accountable for delivering on a targeted Care Coordination capacity element (derived from the Capacity Survey referenced earlier in the Outcomes Section of this report). Meeting the target could be made a requirement for earning quality performance incentive payments starting in 2019 and beyond.

C. Sustained Impact

The CHC Care Coordination project has served as a catalyst for bringing an array of health, social and support services into a more cohesive care coordination model/framework. As a result, new capacity has been developed in a variety of areas to provide patient centered care coordination in new ways to adult patients. As outlined in the previous section, tangible results have been realized with improvement in clinical quality measures, focused disease specific care coordination and improved communication among organizations.

Connections between the various organizations were made for the first time as a result of the grant including those between primary care, key specialists, hospitals, and Hospice. Where possible Data Use, Business Associate Agreements, and/or Participating Provider Agreements will continue to permit data sharing in the future.

Most importantly, the project has created greater awareness about the capacity that organizations need individually and collectively to provide meaningful care coordination. The Care Coordination Capacity Survey was administered to measure self-reported system change over time, which is a strong indication of impact and sustainability. The survey has been used, and will continue to be used, to monitor the shift in responses to 66 capacity elements from "not applicable" or "not considered" to "fully developed and deployed". The results show that leadership and staff in every Consortium partnership organization have experienced individual changes and that collectively, there has been improvement in 63 out of the 66 elements over the last 2.5 years. There has been positive movement experienced pertaining to internal responsibilities for care coordination operations such as defined staff responsibilities, teamwork, policies, and data review. The coordination effects that have been made externally such as links to community resources, HIT enabled coordination, improved patient satisfaction, clinical outcomes, and reimbursements are all catalysts that have built momentum to predictably continue this work into the future.

Additional "halo effects" of the CHC project are seen in improved service model changes related to Patient Centered Medical Home, Care Planning and Management, and Transitions of Care. Residual impacts include:

- *Patients at the center of care* –pre-visit planning, expanded office hours, more team based care, completion and use of assessments

- *Operationally* – defined workflows, job descriptions, policies and procedures, embedded Health Manager model, care planning tools, quality improvement action plans, use of motivational interviewing techniques
- *Administratively* - enhanced coding practices, more defined and bi-directional referral patterns, business relationships with specialists initiated, referral tracking and follow-up, resource and performance measurement alignment, and overall better documentation and communication.

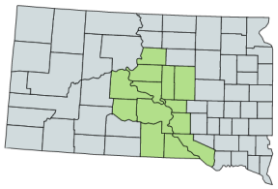
Additional highlights of some longer standing impacts of this CHC project include but are not limited to:

- Diabetic Eye Exam Capacity (Telemedicine): A total of 19 Retina Vue Eye retinal eye scan cameras will be distributed to 11 PCP's in the next 2 years to provide onsite DM eye exams. This was the result of grant from an insurance payer to help improve local eye exam rates. This grant will also facilitate the formal engagement of eye care specialists with each PCP and the IDS.
- Medicare Advantage Chronic Disease Special Needs Population Project (C-SNP): CCHN has been engaged as a consulting partner with a regional insurance company to help them improve care management for DM patients with CHF based upon the Million Hearts®/Cardiac Strategy Collective Impact Model that has been part of this grant. Chautauqua has a significantly lower medical loss ratio for this population (.86) when compared to the rest of the region (1.12). We hope to use some revenue from this project to test the introduction of key health risk assessment questions related to Social Determinants of Health and ACES to target service and referral development with CBO's.
- Cardiology Specialty Pool Participation: IDS is adding Cardiology as the first specialty pool to participate in quality performance metrics with the network. Personnel, IT, and reporting linkages are being built between the Cardiac Navigator, participating cardiology practice, and PCP's.
- Hospice Outreach to CHF patients: Hospice is beginning to align its work with the Cardiac Strategy. Hospice outreach had focused mostly on cancer patients and when CHC pointed them to the population data, they realized that more effort can be focused on increasing engagement of Stage 3 and 4 cardiac patients. The Consortium will be supporting their efforts to link with PCP's and cardiologists for referrals. CCHN and IDS will continue to track referral trends.
- Emerging COPD Strategy: The success of the Cardiac Strategy has sparked interest in designing a similar tiered clinical strategy based on the GOLD criterion. Plans are in the works to develop the algorithm and to partner with an insurance payer and/or the Lung Association on a pilot project.
- Direct Secure Messaging: CCHN will continue to advocate and provide technical assistance to CBO's to get them linked through Mirth mail for referrals. For example, plans are in the works to bring the Chautauqua Blind Association on-line in the fall for social work support for eligible patients.

Part VIII: Implications for Other Communities

As a result of this grant, new capacity has been created to serve older adults in new ways. Program outcomes indicate partners are working collectively to achieve positive results while also realizing there are still gaps that need to be addressed. Partners have acknowledged the continued need to work together systematically and collectively on clinical integration, care coordination, and the implementation of evidenced-based practices to serve patients. These activities have been a complex undertaking, involving fundamental changes in, not only how a facility operates as a unit, but how it operates within a larger system. A key area of focus that was identified with grant partners included the need to further strengthen communication within partner facilities so that staff members understand their role in the network and how they can impact outcomes.

A couple of qualitative measures/indicators that might be beneficial for other communities wishing to implement a similar program would be use of a Capacity Survey as a way of creating greater awareness among staff about the range of capabilities needed for successful service delivery by a system and as a means to measure changes in interrelated and co-dependent organizational capacities. Also the use of provider and patient satisfaction surveys to determine perceptions about whether the system has changed (e.g., does the physician report receiving reports following a referral).



South Dakota

Part I: Organizational Information	
Grant Number	G07RH28860
Lead Grantee Organization	Avera St. Mary's
Lead Organization Type	Hospital
Address	801 E. Sioux Ave, Pierre, SD 57501
Grantee Organization Website	www.Avera.org
Care Coordination Grant Project Title	Completing the Circle
Project Director	Name: Marnie Burke
	Title: Director of Quality, Safety & Risk Management
	Phone number: 605-224-3245
	Fax number: 605-224-3579
	Email address: Marnie.burke@avera.org

Part II: Network Partners * Indicates consortium partners that signed a Memorandum of Understanding/Agreement		
Partner Organization	**Location** (town/county/state)	**Organizational Type**
*Avera St. Mary's	Pierre, Hughes County, South Dakota	Hospital
*South Dakota Urban Indian Health	Pierre, Hughes County, South Dakota	Indian Health Services (IHS)/ Federally Qualified Health Center (FQHC)
*Vilas Pharmacy	Pierre, Hughes County, South Dakota	Pharmacy

Part III: Community Characteristics

A. Area

The Completing the Circle project served patients in 13 central SD counties: Brule, Buffalo, Charles Mix, Gregory, Hand, Hughes, Hyde, Jones, Lyman, Potter, Stanley, Sully, and Tripp.

B. Community Description

Eleven of the 13 counties served by this project are extremely rural and are designated as "frontier" by the US Census Bureau. Patients in this region have little to no immediate access to services such as healthcare, exercise facilities or grocery stores with fresh produce. The service area counties have an extremely high rate of death due to diabetes compared to the rate of diagnosis. These high rates in combination with the distance between health professionals in the area, limited transportation, and low income levels, all create a population that struggles to properly manage their diabetes.

C. Need

The Completing the Circle program was designed to address the health needs of Type-2 diabetic patients in central South Dakota through coordinated care and telehealth services addressing the physical, mental, emotional, and spiritual needs of each patient using the evidence-based Patient-Centered Medical Home model. Access to adequate transportation is a barrier for this population. The total population of the service area is just over 54,000 and access to healthcare can be up to 60 miles one-way. A large portion of the service area includes Native American tribal lands and 18% of the population in this service area is Native American people. In 11 of the 13 area counties, more than 10% of the population is below the Federal Poverty Level. A large portion of the population is also underinsured with 16.6% of the target service population being uninsured. According to the Avera St. Mary's Community Health Needs assessment which is completed every three years, diabetes is one of the top three health concerns facing communities in central South Dakota. The Indian Health Service (I.H.S.) tribal program does offer health care access related to diabetes care for Native American people in this region, however gaps in care remain. The service area counties have an extremely high rate of death due to diabetes compared to the rate of diagnosis. These high rates in combination with the

distance between health professionals in the area, limited transportation, and low income levels, all create a population that is currently unable to properly manage their diabetes.

Part IV: Program Services

A. Evidence-based and/or Promising Practice Model(s)

The evidence-based Patient Centered Medical Home (PCMH) model was selected as the practice model for the *Completing the Circle* project. Avera Medical Group (AMG) had an existing Coordinated Care program that provided support for patients facing barriers in their care. Three staff members comprise the Coordinated Care team; a register nurse case manager (RNCM), a Coordinated Care Specialist, and a master's prepared social worker (MSW). In addition, the use of telehealth services was added to increase capacity of reaching the participating patients. Two telehealth programs used were Avera eConsult and the AveraNow platforms. Avera eConsult offers the ability to connect a patient in the rural setting with a specialty provider in an urban setting through the use of telehealth monitors in each location. AveraNow offers a means for patients to connect with providers 24/7 via a smartphone or tablet. The use of these technologies offered added support to Type-2 diabetic patients. The patients reside in rural, remote areas and were connected with specialty providers in Sioux Falls, South Dakota which is normally 3-4 hours of travel time (one-way) from home for these patients. Also, patients participating in the Completing the Circle program were offered medication consultations with a Pharmacist using the AveraNow platform.

B. Description of Activities

Each Type-2 diabetic patient enrolled received 3 educational visits with a certified diabetic educator (CDE). These visits included education on diabetes management, a grocery store tour in the patient's local community and a cooking class to prepare healthy food choices purchased during the grocery store tour. Program enrollees were given a crock-pot, diabetic cookbooks, foot care kit, and exercise bands along with education on how to utilize the items. Additional support, beyond the initial diabetic educational sessions was provided to the patient via the AveraNOW platform for visits with the CDE. A visit with the pharmacist from Vilas Pharmacy was also offered for education on the medications the enrollee was taking. This support was offered both in a one-to-one visit in person and/or through the use of AveraNow. The program enrollee's care and educational needs were coordinated by the local Coordinated Care teams based out of the patient's local medical clinic. Each program enrollee's initial assessment was documented to create baseline data with clinical outcomes monitored and reported by the Coordinated Care nurses over the course of enrollment in the program.

C. Role of Consortium Partners

Avera St. Mary's hospital served as the lead applicant and coordinating entity in the Completing the Circle project. They developed a time-line of events needed to meet the goals of the program. They hosted governing board meetings to share progress with senior leaders that were held on a quarterly basis. They also hosted monthly work-group calls connecting all of the front-line staff involved in the program to share best practices and discuss specific program enrollee needs and/or concerns. Avera St Mary's also completed all of the required reports related to the Completing the Circle grant. South Dakota Urban Indian Health (SDUIH) had a diabetes self-care management program in place at the onset of the project which provided a CDE and a model of care to the Avera Medical Group Pierre (AMGP) Coordinated Care team. In years 2 and 3 of the project, AMG obtained their own CDE and built up a diabetic self-management program of their own. Activities expanded into AMG Gregory clinic as well to better serve the patients in the more southern counties of the area served. Vilas Pharmacy, who operates a number of rural pharmacies in the region, provided pharmaceutical support, consultation, and education for the project.

Part V: Outcomes

A. Outcomes and Evaluation Findings

The Completing the Circle program's focus was on improving the management and outcomes for patients with Type 2 diabetes. We made a commitment to work with 20 patients in year 1, 30 patients in year 2, and 40 patients in year 3. We ended the program with 41 patients who completed all aspects of the program. Past clinical outcomes and health care utilization data were reviewed for each patient at the time of initial enrollment into the Completing the Circle program. This served as base-line data for the enrollee. Data was then reviewed on each program enrollee every three months. Areas we focused on were evidence-based diabetic measures including HgbA1c levels, diabetic eye exams, diabetic foot exams, urine microalbumin screening, and blood pressure monitoring. We also monitored program enrollees for underlying depression using the PHQ9 depression screening. Program enrollees were encouraged to develop relationships with their primary care provider to avoid the inappropriate use of emergency room visits. Hospitalization and emergency department utilization trends were followed for both Native American and non-Native enrollees. This helped us identify possible discrepancies so processes could be altered if need be related to cultural differences and/or preferences. We used a color-coded system to demonstrate our outcomes with green demonstrating

improvement from base-line, yellow showing no change from base-line, and red showing a decline for the measure. The data primarily showed improvements across all outcomes as demonstrated in the graph below:

Patient Outcomes

Patient outcomes prior to enrollment are self-reported. Patients enrolled < 3 months and/or no subsequent vitals are excluded from the analysis.

	Total			Non-Native			Native		
	Pre	Current		Pre	Current		Pre	Current	
BMI	38	36	🟢	38	37	🟢	35	35	🟡
A1C	9.9	9.1	🟢	9.8	8.7	🟢	9.8	9.1	🟢
BP	130 / 73	126 / 72	🟢	132 / 72	128 / 70	🟢	125 / 77	121 / 75	🟢
Eye Exam	24%	38%	🟢	33%	38%	🟢	25%	38%	🟢
Foot Exam	32%	36%	🟢	29%	35%	🟢	38%	38%	🟡
Microalbumin Screening	46%	40%	🔴	38%	47%	🟢	63%	44%	🔴
Colorectal Cancer Screening	24%	32%	🟢	29%	35%	🟢	13%	25%	🟢
Breast Cancer Screening	40%	85%	🟢	69%	88%	🟢	25%	75%	🟢
PHQ9	3	3	🟡	3	3	🟡	3	2	🟢
Advance Directive Discussion	16%	100%	🟢	23%	100%	🟢	0%	100%	🟢
Inpatient admissions	8	4	🟢	4	3	🟢	4	1	🟢
ER visits	11	4	🟢	3	3	🟡	8	1	🟢

🟢 = Improvement from Pre value 🟡 = Neutral to Pre value 🔴 = Decline from Pre value

B. Recognition

The local newspaper, the *Capital Journal*, ran a front page story on September 25, 2015 announcing the receipt of the grant funds and a description of the Completing the Circle project. The Completing the Circle project was also featured in the Fall Home & Health section of the *Capital Journal* on September 30, 2015. The work of the project was reported on the HRSA Tribal call December 12, 2017 as well as presented at the HRSA CBD-All Programs meeting in Bethesda, MD, on February 27, 2018.

Part VI: Challenges & Innovative Solutions

We had three separate independent organizations coming together to try to improve the support we all offered to our patients with a diagnosis of Type 2 diabetes. We needed to take time to discover what services each partner was bringing to the table. It wasn't so much a challenge as an opportunity to learn new ideas and tools. We quickly discovered we were all passionate about this work and decided as a group which components we would concentrate on and move forward.

During the second year of the Completing the Circle program, SDUIH had a change in senior management. We were fortunate that their new Executive Director shared a common vision to the work we were doing and continued to support the program. Likewise, Avera St Mary's also had a senior leader retire and her replacement was equally supportive and key to the success of our program.

A technology challenge that was addressed and resolved involved three separate electronic health records/reporting tools used by the three partners. Each partner continued documentation in their respective individual record, but as a resolution to the challenge, a spreadsheet was created that was accessible to those within the Avera system. The remaining partners would forward pertinent information to an Avera contact to complete the data entry for them. This information was forwarded and entered on a quarterly basis to ensure consistent data tracking for the enrollees.

Initially we planned on offering cell phones to each program enrollee to help with communication with their primary care provider and his or her staff. We quickly recognized that the Completing the Circle program participants already had cell phones and weren't interested in changing to a different phone. This caused us to re-evaluate our initial plan and moved to offer the AveraNow service as added support in the clinic instead. This proved to be a beneficial change in that additional diabetic support from the urban area was provided to program participants remotely.

Part VII: Sustainability

A. Structure

The formal network between Avera St. Mary's, South Dakota Urban Indian Health and Vilas Pharmacy as structured for the Completing the Circle project will not continue. As a result of the Completing the Circle project, each of the network partners expanded and further developed their services and programs for diabetic patients. Through the network, the partners were also able to identify best practices for reaching and improving care for patients with Type 2 diabetes. There were existing relationships between the three entities prior to the grant project. Going forward these relationships will revert back to an informal network, in which each of the network partners will continue to collaborate and work together to provide care for identified patients. Since we are in a rural area, we all work together fairly regularly to meet the needs of the population served.

B. On-going Projects and Activities/Services To Be Provided

i) Will all, some or none of the elements of the program be sustainable once Care Coordination grant funding has ended? Please check the appropriate selection.

☒ All elements of the program will be sustained
☐ Some parts of the program will be sustained
☐ None of the elements of the program will be sustained (i.e. the program will completely end after the grant period)

ii) Identify the projects and activities that will be sustained beyond the Care Coordination grant period.

The network's model of support to Type-2 diabetic patients with 3 educational sessions including the grocery store tour and teaching kitchen will be sustained within the Avera Coordinated Care teams in the communities involved in the Competing the Circle grant program. The AMG Director of Patient Care Coordination has plans to expand this model into other regions of the Avera Health system. There are currently 14 Coordinated Care teams in existence across South Dakota, Minnesota, Iowa and Nebraska that will learn and begin to implement the best practices identified through the Completing the Circle program. SDUIH has all components in place to continue with this model of care as well. They will continue to provide the grocery store tours for education on healthy food choices followed by the cooking kitchen to prepare the food in a healthy manner. Vilas Pharmacy is taking the educational model and tools used in the Completing the Circle program in hopes of using it at a pharmacy site in a tribal community that is a non-Avera site. The AveraNow platform will continue to be available to schedule appointments with the Avera Diabetic Coordinator in Sioux Falls for those patients who need the additional support to manage their disease but may not be able to travel to receive the care needed.

C. Sustained Impact

Sustained impact of the Completing the Circle project is evident in three main categories: improved service models; increased capacity in local systems; and changes in knowledge, attitudes and behaviors of the enrollees and their family members.

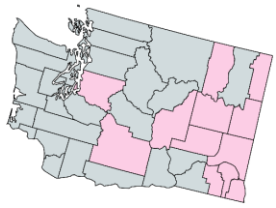
- **Improved service models** - The work of the project has provided a successful model of care to Type II diabetics in this demographic that will be continued within the Avera Coordinated Care teams outside of the grant project. The concept of having the CDE provide each new enrollee with three educational sessions, including going to the enrollee's local community to meet with him/her to do a grocery store tour in the enrollee's home grocery store, a hands-on teaching kitchen class, and then supplementing these educational sessions with Avera's telehealth application AveraNow has provided the support that enrollees need to make measurable gains in controlling their disease process. The AMG Director of Care Coordination program has referenced the Completing the Circle model as a best practice which may be replicated in the other nine Coordinated Care sites within Avera.
- **Increased capacity in systems** – Increased capacity has occurred over the three-year course of the grant enabling the work to continue at a local level. During the grant period, Avera Medical Group clinics in Pierre and Gregory have succeeded in building up their own certified and accredited diabetic education program with the capacity to provide diabetic patients within Avera's Coordinated Care program the education and support needed to manage their type II Diabetes. The CDE nurse utilized by the Completing the Circle project to provide the three educational sessions with the enrollees will be able to step aside at the conclusion of the grant period and allow the newly structured diabetic education programs at Avera Medical Group Pierre and Gregory to assume the care of these Type-II diabetic patients.
- **Changes in knowledge, attitudes and behaviors** – Changes for the enrollees and their family members will go on long after the work of the grant is completed. By providing patients with education, resources like crock pots and diabetic cookbooks, and interactive shopping and cooking class patients and their families develop the knowledge base to manage their chronic disease independently for years to come.

Additional sustained impacts to both the health of the enrollee and the health of the community at large include a reduction in utilization of healthcare services and prevention of morbidities and co-morbidities in the diabetic patient. These sustained impacts lead to a higher quality of life for individuals and their family.

Part VIII: Implications for Other Communities

The continuous improvement in quality data demonstrated in outcomes reports of the Completing the Circle grant speaks to the value of the work. Quality metrics on HgbA1C, blood pressure readings, diabetic retinal exams, diabetic foot exams, decrease in hospital admissions all showed continual improvement across the three-year period of the grant. Key drivers in making these improvements include:

- Having a consistent Registered Nurse Case Manager communicating with the patient
- Access to a certified diabetic educator for initial and follow-up education
- Grocery store tour in home town to teach healthy food choices
- Cooking kitchen to share cooking healthy tips
- Adding spouse and/or care giver to education sessions
- Medication review/management with a pharmacist to ensure understanding and compliance in medication adherence
- Demographic outcomes were also considered for comparison by age, sex and native vs. non-native enrollees.



Washington

Part I: Organizational Information	
Grant Number	G07RH28863
Lead Grantee Organization	Critical Access Hospital Network
Lead Organization Type	Non-profit network of independent rural health systems
Address	14 W. Pine Street, Newport, WA 99156
Grantee Organization Website	www.nwrhn.org
Care Coordination Grant Project Title	Eastern WA Rural Health Network Care Coordination Partnership
Project Director	Name: Jac Davies
	Title: Executive Director
	Phone number: 509-998-8290
	Fax number:
	Email address: jdavies@nwrhn.org

Part II: Network Partners		
* Indicates consortium partners that signed a Memorandum of Understanding/Agreement		
Partner Organization	**Location** (town/county/state)	**Organizational Type**
*East Adams Rural Healthcare	Ritzville, Adams County, WA	Rural health system
*Newport Hospital and Health Services	Newport, Pend Oreille County, WA	Rural health system
*Odessa Memorial Health	Odessa, Lincoln County, WA	Rural health system
*Lincoln Hospital	Davenport, Lincoln County, WA	Rural health system
*Ferry County Hospital	Republic, Ferry County, WA	Rural health system
*Coulee Medical Center	Grand Coulee, Grant County, WA	Rural health system
*Columbia Basin Healthcare	Ephrata, Grant County, WA	Rural health system
*Samaritan Healthcare	Moses Lake, Grant County, WA	Rural health system
*Othello Community Hospital	Othello, Adams County, WA	Rural health system
*Sunnyside Community Hospital	Sunnyside, Yakima County, WA	Rural health system
*Columbia County Health System	Dayton, Columbia County, WA	Rural health system
*Garfield County Health System	Pomeroy, Garfield County, WA	Rural health system
*Tri-State Memorial Hospital	Clarkston, Asotin County, WA	Rural health system
*Pullman Regional Hospital	Pullman, Whitman County, WA	Rural health system
*Whitman Hospital and Heath Services	Colfax, Whitman County, WA	Rural health system
#Molina Health	Seattle, King County, WA	Medicaid Managed Care Organization
#Empire Health Foundation	Spokane, Spokane County, WA	Regional philanthropy

Part III: Community Characteristics

A. Area

The Eastern Washington RHCCNP included Ritzville in Adams County, Odessa and Davenport in Lincoln County, and Newport in Pend Oreille County, all in Washington State.

B. Community Description

The Eastern Washington RHCCNP targets four independent, non-competitive health systems in three rural counties -- Adams, Lincoln and Pend Oreille – all of which share a common patient referral pattern to urban tertiary centers in Spokane, Washington.

As in many rural communities, the populations in the three health service areas targeted in this program are older and sicker than the state's overall average. Many residents suffer from multiple chronic conditions including diabetes, COPD and congestive heart failure. These chronic conditions are compounded by environmental factors such as poverty and lack of access to key services including transportation and healthy food options.

C. Need

Care coordination is critical to helping patients successfully manage their chronic conditions. Many of these patients receive primary care in their home communities and specialty care in urban centers such as Spokane. Coordination of care between these care settings can decrease the likelihood of adverse health outcomes. Further, care coordination is becoming an integral component of new value-based purchasing strategies in healthcare, with payers setting the expectation that providers will appropriately coordinate care to ensure patients are receiving necessary support and services in primary care and avoiding unnecessary emergency department visits or inpatient stays.

This project was designed to help rural health systems learn how to implement successful care coordination programs, both to address patient needs and help the rural health systems survive under the new payment framework.

Part IV: Program Services

A. Evidence-based and/or Promising Practice Model

The Eastern WA RHCCNP is implementing a Health Home program for Medicaid enrollees of Molina Health, a Medicaid Managed Care Organization (MMCO). The Affordable Care Act authorized states to apply for waivers that would allow use of Health Home programs for their Medicaid populations. The Health Home program is highly structured and offers coordinated care to individuals with multiple chronic conditions. The Health Home is a team-based clinical approach that includes the patient, his or her providers, and family members when appropriate. The Health Home builds linkages to community supports and resources as well as enhances coordination and integration of primary and behavioral health care to better meet the needs of people with multiple chronic conditions. The Health Home program is evidence-based and has been implemented in 13 states. Further information is available at https://aspe.hhs.gov/basic-report/evaluation-medicaid-health-home-option-beneficiaries-chronic-conditions-progress-and-lessons-first-states-implementing-health-home-programs-annual-report-year-four.

The key challenge for the Eastern WA RHCCNP was implementation of Health Homes in rural communities. Most of the prior work in WA had been done in urban centers. Efforts by Molina to use the program in rural communities had not been successful, so they looked for rural partners who would have stronger ties to the patients and communities to be served by the program. Through our work, Molina learned that rural health systems need more support through the implementation process, including guidance in contracting and training for staff. They have adapted their processes to allow for more support during the on-boarding phase of implementation. We also learned that hiring staff with the kinds of credentials that the Health Home program requires can be difficult for rural communities. We worked with Molina to get approval from state policy makers to expand the list of health professionals that can be hired as care coordinators and reimbursed for care coordination services to give rural health systems more flexibility.

B. Description of Activities

Activities under the Eastern WA RHCCNP were broken out into two phases:

- Implementation –
    - Establishing contracts with Molina
    - Recruiting staff as care coordinators
    - Providing training for care coordinators (both Health Home specific training and more broad care coordination training)
    - Determining how to integrate care coordinators and their activities into clinic operations
    - Providing training as needed to other members of the care teams on how to include care coordination in clinical practice
    - Identifying patients eligible for the Health Home program
    - Outreach to and enrollment of patients in the Health Home program
- Patient Care –
    - Conducting a comprehensive health needs assessment for each patient, including conducting a Patient Activation Measurement to determine patient's level of engagement, and identifying key social and environmental factors affecting patient's health.

- Identifying community resources that might help meet patient needs such as access to housing vouchers or support for paying electrical bills.
- Coordinating health care needs with primary care teams.
- Monthly meetings with patients, including home visits, to assess progress and provide support.
- On an on-going basis, coordinating care with specialists as needed and helping patients through transitions in care in case of hospitalizations or emergency department visits.

C. Role of Consortium Partners

Four network members were involved in the RHCCNP. They were responsible with carrying out all care coordination activities described above. The CAHN itself served as the overall coordinator for the program, organizing training, arranging ongoing planning and information sharing meetings with participants, facilitating interactions with funding agencies and reporting on results. Molina Health provided support for Health Home implementation, served as the liaison with state policy makers to share findings from the RHCCNP, and provided data to support evaluation. Empire Health Foundation provided funding along with HRSA as part of a public-private partnership, helped coordinate RHCCNP with other regional initiatives, and included information about and learnings from the RHCCNP in national planning efforts with other philanthropies.

Part V: Outcomes

A. Outcomes and Evaluation Findings (do not submit your Evaluation Report in lieu of completing this section)

Outcomes under the RHCCNP have fallen into five general categories

- *Implementing care coordination programs* –
  While two of the four participating rural health systems had existing care coordination programs, none had yet implemented the Health Home program that has been the focus of the RHCCNP. Success in implementation of the Health Home program is seen as critical to overall sustainability of care coordination efforts as the Health Home program has a built-in reimbursement mechanism that allows billing for care coordination activities.
  While there were delays in the beginning, all four participating rural health systems were able to establish contracts with Molina, the participating Medicaid Managed Care Organization; hire and train appropriate personnel; and begin seeing patients over the course of the RHCCNP project.
- *Providing care coordination services* –
  Across the four participating rural health systems, 32 patients have been enrolled in the Health Home program and receiving care coordination services at some point in the last three years. This number is lower than anticipated for several reasons, including delays in program implementation, low numbers of referrals for eligible patients in the communities served, and, at some of the sites, low uptake on the voluntary program by eligible patients. There has also been some turnover in participating patients over the project period in part due to the nature of the population served (many Medicaid patients change providers frequently) and in part due to the strict state-imposed eligibility requirements for the Health Home program. Several patients who were enrolled lost eligibility during the project period.
  Analysis of the evaluation metrics has been delayed until the program participants have been enrolled long enough to show changes. However, anecdotal reports from the care coordinators have indicated that participating patients are more engaged in their own health care and very appreciative of the program's support.
  The care coordinators themselves have also reported positive benefits from the program. They feel that the emphasis of the Health Home program on communication with patients and addressing patient issues outside of direct clinical care has helped them and other members of the primary care teams expand their view of what health care means. The program has helped retrain staff as well as patients and introduced a different type of provider/patient relationship, which emphasizes sharing of responsibility for patient health. As one care coordinator noted, "We're not here to tell you what to do, we're hear to help you work on your own health."
- *Enhancing care coordination services* –
  In addition to offering care coordination services, through the RHCCNP three of the four sites sent staff to a training that allows them to offer Chronic Disease Self-Management Programs (CDSMP) in their communities. The fourth site had already been providing this service. These educational programs help individuals with chronic conditions and their families better understand how to monitor their health status and improve it through nutrition and physical activity. The CDSMP has been offered successfully in one community in the past year and care coordinators are currently planning other sessions this fall. Three of the participating RHCCNP sites serve adjacent rural populations, with small communities near the boundaries of each other's service areas. In part because of the camaraderie that

has developed between care coordinators in the RHCCNP through regular update and planning calls, these care coordinators are now planning joint CDSMP offerings and sharing time and resources between their rural health systems.

- *Increasing care coordination capacity* –
  Early in this project we learned that care coordinators and their supervisors across our network felt that additional training was needed. For this reason, we developed a training program that was offered to all care coordinators in our network. The training series consists of a full-day in-person session and periodic webinars on a variety of care coordination topics. During the in-person session in January 2017, 21 care coordinators from 13 rural health systems learned about the design of care coordination programs and changes that need to be made in hospital and clinic operations to implement care coordination. They also learned about the fundamentals of population health management and referrals and test order tracking. In additional seminars available over the course of the year, care coordinators also learned about chronic and transitional care management and reimbursement strategies for care coordination services.
- *Influencing policy* --
  Prior to the work in the RHCCNP, the state's Health Home program limited eligible providers to certain licensed health professionals including nurses and social workers. Any other type of health personnel would not qualify for reimbursement of care coordination services. Our participating sites learned that recruiting and retaining the kind of qualified personnel necessary for a Health Home program is very difficult in a rural community. Further, they felt strongly that for the kinds of services being offered through the Health Home program a nursing credential was not really necessary. They pressed for the inclusion of Medical Assistants on the list of eligible professionals. Through partnership with Molina and communication with state policy makers, we were able to have this change made. This will simplify participation in the Health Home program for other rural health systems in Washington.

B. Recognition

Findings from the Eastern WA RHCCNP have been presented at the Northwest Rural Health Conference and the annual meeting of the National Rural Health Association.

Part VI: Challenges & Innovative Solutions

Contracting -- The participating rural health systems had not previously signed contracts for value-based healthcare services with insurers. These new kinds of contracts took considerable time to review, negotiate changes, and obtain approval both by the health systems and the insurers. Both sides learned to allow more time for this process in the future.
Hiring – The rural health systems found it difficult to hire and retain care coordinators who met the requirements of the Health Home program. They suggested expanding the list of eligible health professionals to include Medical Assistants. Molina took these suggestions to state policy makers, who agreed to make the change.
Enrolling patients – Reaching out to eligible patients to encourage enrollment in the Health Home program is time consuming and challenging, especially with the Medicaid population where patients often move and contact information is often out of date. Further, under the Health Home contract, care coordinators are not paid until after the patients are enrolled. Recognizing the extra burden this work was placing on rural health systems, Molina agreed to take over the process of reaching out to and enrolling patients in the program.

Part VII: Sustainability

A. Structure

All fifteen members of the CAHN intend to continue as part of the current network. They continue to find value in sharing information, pursuing joint grant opportunities, and coordinating responses to state and federal initiatives and programs.
All participating heath systems in the Eastern WA RHCCNP intend to continue engaging in the Health Home program and will maintain their care coordination services. All are also looking to expand their programs by offering care coordination services to Medicare patients, which will improve care for those patients while also providing another opportunity for reimbursement. The new practices they have implemented have helped improve both patient care and patient and provider satisfaction. These are critical to sustainability of the overall rural health system, not just the care coordination programs.

B. On-going Projects and Activities/Services To Be Provided

i) Will all, some or none of the elements of the program be sustainable once Care Coordination grant funding has ended? Please check the appropriate selection.

☒ All elements of the program will be sustained
☐ Some parts of the program will be sustained
☐ None of the elements of the program will be sustained (i.e. the program will completely end after the grant period)

ii) Identify the projects and activities that will be sustained beyond the Care Coordination grant period.

As noted above, all four rural health systems participating in the RHCCNP intend to continue their Health Home and other care coordination programs and services. In addition, through the RHCCNP, three of the rural health systems began offering chronic disease self-management classes, which have been very well received in their communities. The fourth participating health system had already been offering the classes prior to the RHCCNP. These classes are helping individuals with multiple chronic conditions and their family members be better prepared for taking care of themselves. The classes also reinforce the messages that patients are receiving from care coordinators and provide another opportunity for patient engagement. These classes will continue.
The RHCCNP activities have also helped increase the use of team-based care at the participating rural health systems, with the care coordinators working closely with primary care teams to identify patients in need of enhanced care management. The care coordinators have also been serving as liaisons to communicate non-clinical patient issues, such as housing or food needs, back to care teams. This practice has significantly helped increase communication among members of the care team and will be continued.

C. Sustained Impact

At the four participating rural health systems, the RHCCNP has helped offset the initial recruitment and implementation costs for care coordination staff, assuring that some of the smallest health systems in the CAHN were able to get started with this critical activity.
Further, the RHCCNP has helped increase the number of trained care coordinators across all CAHN member organizations, not just in the four participating rural health systems. The RHCCNP sponsored training that was offered to all care coordinators associated with member organizations. This training, along with the increased environmental pressure from HCA and payers to implement care coordination programs, has significantly increased regional investment in care coordination.
The work conducted under the RHCCNP has helped the participating health systems develop a better understanding of what it takes to implement a successful care coordination program. This includes the training needed for all staff, not just the care coordinators; the importance of selecting the right people to fill care coordinator positions; and the integration of care coordination into clinic and hospital operations. This knowledge substantially increases the likelihood that they will be able to sustain and expand these programs.
The first step involved in implementing the Health Home program for all four participating rural health systems was establishing a contract with Molina. This process turned out to be more time consuming and complex than anticipated. Through this work, all of the health systems have a much better understanding of contracting with Medicaid Managed Care Organizations, which will help prepare them for future contract opportunities.

Part VIII: Implications for Other Communities

All members of the CAHN have already begun implementing care coordination programs. They have been able to benefit from some of the learnings and the training developed through the RHCCNP. Several are linking those programs to other new activities such as palliative care programs. There is significant overlap in the patient population with multiple chronic conditions needing care coordination and those in an advanced disease state needing palliative care. There is also overlap in the processes and practices of care coordination and palliative care. Having foundational programs in care coordination will help all of the rural health systems have the resources and expertise to bring in new programs and services in support of their high need patients. As one care coordinator noted, “Everything circles back to care coordination and chronic disease management.”
This philosophy can and should be applied in all health systems. Care coordination should not be seen as a single program focused narrowly on a specific population to receive a certain reimbursement. Care coordination is a critical foundation to a transformed health system. It not only affects patient health, it affects how providers deliver care and the kind of relationship they have with their patients. One care coordinator commented “This has given me as a nurse a different way of thinking about how I approach patients, and has helped all of our clinic staff interrelate to patients differently.” Another care coordinator agreed and said “Care coordination has led to a

shift in thinking for clinic staff. Now we are putting more emphasis on educating and enabling patients, not just telling them what to do. We are helping them be more accountable for their own health."

West Virginia

Part I: Organizational Information	
Grant Number	G07RH28867
Lead Grantee Organization	Williamson Health & Wellness Center, Inc.
Lead Organization Type	FQHC and AHEC center
Address	182 E 2nd Avenue Williamson WV 25661
Grantee Organization Website	https://williamsonhealthwellness.com
Care Coordination Grant Project Title	Rural Health Care Coordination Network Partnership Program to expand a CHW care coordination model.
Project Director	Name: Jennifer Hudson
	Title: Resource Manager, Network Director
	Phone number: 304-928-1704
	Fax number: 304-235-3403
	Email address: jhudson@williamsonhealthwellness.com

Part II: Network Partners * Indicates consortium partners that signed a Memorandum of Understanding/Agreement		
Partner Organization	**Location** (town/county/state)	**Organizational Type**
Dr. Mannueel Abbas, Williamson Health & Wellness Center *	Williamson, Mingo County, WV	Federally Qualified Health Center (FQHC)
Kermit Primary Care*	Kermit, Logan County, WV	Clinic
Dr. Vallaiappan Somasundaram, Williamson ARH Hospital*	Williamson, Mingo County, WV	Hospital
Williamson Health & Wellness Center *	Williamson, Mingo County, WV	Federally Qualified Health Center (FQHC)
Vicki Hatfield, Williamson Family Care*	Williamson, Mingo County, WV	Clinic
Dr. A Patnaik, Cardiac Care Center*	Williamson, Mingo County, WV	Specialty Care
Robin Browning, Appalachian Psychology Associates*	Williamson, Mingo County, WV	Behavioral Health
Jerome Cline, Williamson Health & Wellness Center *	Williamson, Mingo County, WV	Federally Qualified Health Center (FQHC)
Traci Booth, Williamson Family Care*	Williamson, Mingo County, WV	Clinic
Comprehensive Health Solutions*	Williamson, Mingo County, WV	Clinic
Teresa Robinson, Williamson ARH Hospital*	Williamson, Mingo County, WV	Hospital
Williamson Memorial Hospital*	Williamson, Mingo County, WV	Hospital
Marshall University*	Huntington, Cabell County, WV	Public university

Part III: Community Characteristics

A. Area

The Rural Health Care Coordination Network Partnership Program provides services in Mingo County and Logan County in West Virginia and Pike County in Kentucky.

B. Community Description

Pervasive poverty, unemployment, and low educational attainment indicate a target population that experiences multiple barriers to care that result in lower quality of life and poor health outcomes among the general population. These conditions are exacerbated

for those living in poverty or working in the coalmines. The 2017 County Health Rankings reports that Mingo County's population ranks 54th worst out of all 55 counties in the State of West Virginia for overall health outcomes and 54th worst for health factors. West Virginia is the 43rd unhealthiest state in the nation, and Mingo County is the second unhealthiest county in the state – making Mingo County one of the unhealthier places in the entire nation. Mingo County also ranks 54th worst out of 55 for health factors that include health behaviors, such as smoking, obesity, and physical inactivity. In addition, Mingo County ranks 55th worst for clinical care measures (e.g. uninsured, provider ratios and health care costs). This indicates a large target population with high rates of chronic diseases (diabetes, obesity, heart disease) that are compounded by poverty and related unhealthy lifestyle choices that negatively impact a person's daily life and have resulted in multi-generational health disparities.

C. Need

According to the Centers for Disease Control and Prevention, Mingo County residents disproportionately experience the burden of chronic disease and experience some of the highest rates of obesity, diabetes, heart disease, lung cancer, and asthma than any other part of the nation. The economic recession and national shift towards less coal-based energy production has perhaps not been felt more in the nation than by residents of Mingo County, especially the low-income and uninsured population. This has contributed to a downward spiral of almost every major health indicator of quality of life and adequate access to primary health care. This trend has led to a target population with increased rates of unmanaged chronic disease. The high incidents of chronic disease are combined with a lack of access to resources that impact health outcomes.

Part IV: Program Services

A. Evidence-based and/or Promising Practice Model(s)

The Rural Health Care Coordination Network Partnership Program expanded a Community Health Worker (CHW) care coordination model led by Williamson Health & Wellness Center (WHWC) based on experiences and research from the Southeastern Diabetes Initiative (SEDI). The Southeastern Diabetes Initiative was a 2012-2015 CMS Innovation Award led by Duke University in collaboration with rural healthcare providers. The purpose of the community-based intervention was to employ Community Health Workers to improve the quality of diabetes care and reduce health care costs for Medicare and Medicaid beneficiaries diagnosed with diabetes mellitus in Durham County, NC, Cabarrus County, NC, Quitman County, MS, and Mingo County, WV. Most of the research on real-world diabetes treatments and outcomes had been conducted using survey data such as the Behavioral Risk Factor Surveillance System, the National Health Interview Survey, and the National Health and Nutrition Examination Survey. Real-world compliance with recommended diabetes treatments was also measured by Medicare Advantage plans which are accredited by the National Committee for Quality Assurance. However, the research on diabetes treatments and outcomes among a nationally representative sample of older Americans was limited.

To continue the research from the SEDI CMS Innovation Award, Williamson Health & Wellness Center used funding from the Care Coordination grant to work with our partners, including Richard Crespo at Marshall University, to re-open the SEDI research by engaging Duke researchers to take a closer look at cost-savings data. The need for the research was clear in making a case to payers to support Community Health Workers to provide care coordination services. Williamson Health & Wellness Center and Dr. Crespo helped to refine the study objectives and research questions based on the Medicare data that was accessible to the Duke research team, as follows:

1. Assess population-level changes associated with the SEDI intervention among Medicare beneficiaries diagnosed with diabetes mellitus in Durham County, NC, Cabarrus County, NC, Quitman County, MS, and Mingo County, WV by comparing diabetes screening rates, outcome rates and Medicare costs in the year preceding (pre-intervention) and in the year following (post-intervention) the start of SEDI enrollment.
2. Compare the pre/post-intervention diabetes screening rates, outcome rates and Medicare costs among Medicare beneficiaries diagnosed with diabetes mellitus in a "control" group of border counties.

The HRSA funded Rural Health Care Coordination Network Partnership Program expanded these objective s by replicating the model CHW intervention for Medicare patients and working to build a business case for sustaining Community Health Workers as part of care coordination teams. The Claude Worthington Benedum Foundation provided additional funding to explore cost-savings data for Medicaid and private payer patients. The growing number of communities being served by Community Health Workers broadens our scope and provides more generous data in building an economic case to sustain program expansion within rural communities.

B. Description of Activities

The Community Health Worker Care Coordination program is aimed at improving the health of patients diagnosed with chronic disease including Type 2 Diabetes, Congestive Heart Failure and Chronic Obstructive Pulmonary Disease (COIPD). Care Coordination activities engaged providers and the community in carrying out an effective care coordination system that involved building strong partnerships and improved access to Health Information Technology (HIT) resources and support. Beyond the clinic walls, Community Health Workers linked individuals and families with community resources, including healthy foods and pharmacy supplies.

Each CHW worked with a caseload of up to 40 patients to support healthy lifestyles and medication adherence. CHWs linked individuals to social services including active living and healthy eating resources. Relationships with specialty care providers in the rural community were also important in achieving desired health outcomes. Telehealth services through ECHO were arranged in partnership with Marshall University to link rural providers in our community with specialty care providers to consult and learn about individual cases.

To sustain effective care coordination interventions, Williamson Health & Wellness Center and Dr. Crespo of Marshall University worked to build relationships with third-party payers, moving to achieve reimbursement of care coordination services in WV. Additional funds were leveraged to produce cost savings data in collaboration with Duke University to share with payers.

C. Role of Consortium Partners

Williamson Health & Wellness Center and the Healthy in the Hills Network have excelled in building partnerships to support care coordination programs and sustainability. More than 16 area providers, with tremendous involvement from specialty care providers, and more than thirty social service partners and academic groups participated in care delivery and evaluation. Financial partners include federal agencies (HRSA and CMS) and philanthropic organizations led by Claude Worthington Benedum Foundation with Highmark Foundation, Logan Healthcare Foundation and the McDonough Foundation.

Six third-party payer groups including Unicare, PEIA, Aetna (Coventry), HealthPlan, Blue Cross/Highmark and Humana regularly participate on a committee to sustain CHW services and to explore cost savings data. To strengthen the business case with third-party payers, cost savings data is being calculated and currently passing through the validation stages. This cost savings research involves working with Duke University as an extension of the SEDI CMS Innovation award. Moving forward, payer groups are making commitments to track cost savings and to explore implementation of reimbursement structures to sustain the interventions.

Our social service partners include organizations in our community who offer active living, healthy eating, health education programming, as well as organizations that provide entrepreneurial support. We also refer individuals to specialty care providers and healthcare professionals in addition to these support services.

Adam Baus and Samantha Shawley with West Virginia University assisted in data collection. Duke University helped with analyzing cost-saving data for making our business case. The University of Virginia assisted by developing an App to link our patients with social services. Marshall University's Dr. Richard Crespo provides outreach to 17 locations across Ohio, Kentucky and West Virginia to support expansion and sustainability of the model. The expansion work helps to make system change and establish the model as a long standing and cost-effective intervention in West Virginia and throughout the region.

The Global Public Service Academy has sent groups of students to work directly with our Care Coordination team.
Their activities include educational programming with home visits and working at the Williamson clinic. For their clinical service, students are divided into teams led by trained college graduates (premeds from Duke, Hopkins or similar universities) or faculty. Students learn to facilitate several medical interventions and screenings (measuring infant height and weight, measuring blood glucose, blood pressure, heart rate, incentive spirometry, pulse oximetry, etc.) and complete an important introductory cultural training.

Part V: Outcomes

A. Outcomes and Evaluation Findings

Preliminary data show improved health outcomes and reduced hospitalization for patients enrolled in the Care Coordination and Community Health Worker program. Health outcome data show reduced A1Cs, controlled blood pressure, improved medication adherence and reduced hospitalization.

In terms of replication, the CHW Care Coordination model has been expanded to reach 16 sites across 3 states. More than 100 individuals traveled to Williamson to learn from our program as new sites were established. This expansion work involved leveraged funds and coordination by Marshall University.

Community linkages with more than 30 social service providers were documented with agreements in place. Patient stories indicate improved efficacy among patients, and video stories indicate a long-lasting impact on patient lives. Case studies with patients and provider interviews provide qualitative stories to demonstrate the positive impact on individuals and the Appalachian service area.

B. Recognition

The links below provide access to articles and videos showcasing the CHW Care Coordination model:

Articles
Government and Philanthropies Join Forces for Rural Health
Rural Health Philanthropy Partnership: Leveraging Public-Private Funds to Improve Health

Videos
Leveraging Resources for Greater Impact
Williamson Health and Wellness Center

Part VI: Challenges & Innovative Solutions

Provider engagement remains a challenge. To address the issue of provider engagement, our team continues to build trust among providers and leadership to embed the model within the clinic culture. Moving forward, our clinic will pilot the model with three providers, utilizing a huddle model with Community Health Workers. Additionally, one provider will remain dedicated to 'High Utilizer" patients to focus huddle time specifically on the group of patients who may need the most help.

Since 2012, our model has relied on provider referrals and a risk algorithm tool to identify patients who may be at risk for complications with Type 2 Diabetes. Our Care Coordination grant allowed an extension of the project so that additional disease states could be added to more clearly define the population. Moving forward, our team realizes that the sustainability of Community Health Worker projects in rural communities may rely on reaching the patients who are the "highest utilizers" of healthcare services. In this case, and as relationships with payers mature, it is the Accountable Care Organizations and the private and public payers who are in the best position to identify the patients who will qualify for the services. The aim of improving health outcomes will remain central to the service delivery team who will continue to implement the Care Coordination and Community Health Worker model with the new change in identifying the patient population in collaboration with payers. This change will also result in more reliable cost savings data. The payers and evaluation teams will focus on cost-savings while the care delivery team will focus on health outcomes and social determinants of health with the patients.

Part VII: Sustainability

A. Structure

Williamson Health & Wellness Center and the Healthy in the Hills Network have excelled in building partnerships to support care coordination programs and sustainability. Community Health Worker care coordination interventions will be sustained through diverse partnerships from 2018-2021.

Specialty providers will continue to be a part of the network contacted through the patient referral process and through project ECHO. Primary care providers will remain involved, guiding care coordination and Community Health Worker services through the huddle model that links the patient directly to a healthcare team.

Social service partnerships will continue to grow. Strategies to build a culture of health involve addressing social determinants of health and equity in collaboration with the Institute for Health Improvement's 100 Million Healthier Lives initiative and the National Academy of Medicine Culture of Health program. These national initiatives serve to motivate rural communities within our service area to use evidence based or promising practices to meet the needs of individuals and communities.

As a newly established Southern West Virginia Area Health Education Center (SWVAHEC), the Williamson Health & Wellness Center team will improve training around clinic transformation to encourage care coordination and Community Health Worker models. After training more than one hundred individuals with field experience in Williamson, our team is poised to formalize training opportunities within the SWVAHEC moving forward.

Relationships with payer groups in West Virginia continue to deepen. Williamson is working to negotiate reimbursement codes for Community Health Worker services with at least one private payer. Involving payers directly in the intervention will help with a continued effort to validate cost savings data and build a business case for Community Health Workers.

B. On-going Projects and Activities/Services To Be Provided

i) Will all, some or none of the elements of the program be sustainable once Care Coordination grant funding has ended? Please check the appropriate selection.

☐ All elements of the program will be sustained
☒ Some parts of the program will be sustained
☐ None of the elements of the program will be sustained (i.e. the program will completely end after the grant period)

ii) Identify the projects and activities that will be sustained beyond the Care Coordination grant period.

The leadership team at Williamson Health & Wellness Center and our community partners believe in the success of the Community Health Worker and care coordination interventions. Moving forward, the Community Health Worker program will be included in services as part of the Quality Improvement plan for the clinic. The services will expand to include both in-house Community Health Workers and Community Health Workers working in the home with patients.

With these two tiers of Community Health Worker services available, there are cost factors at play in deciding which patients are eligible for services in the home versus those who would qualify to work with a Community Health Worker in the clinic setting. Our approach is to focus in-house services on prevention of cardiac disease. A team of two in-house CHWs will provide care coordination services to a case-load of 100 patients who are at-risk for cardiac disease. The in-house CHWs will also coordinate huddles for providers in the clinic to strengthen care coordination and achieve systems change goals for the clinic.

The patients who are considered “high utilizers” of healthcare services will qualify for Community Health Worker services in the field. The continuation of this program will involve reimbursement codes from third party payers, including private payers. These relationships are being established at this time. The Community Health Worker case load for seeing patients in the home is up to 40 patients for each of three CHWs. The CHW team will continue to meet weekly with a provider and case manager.

C. Sustained Impact

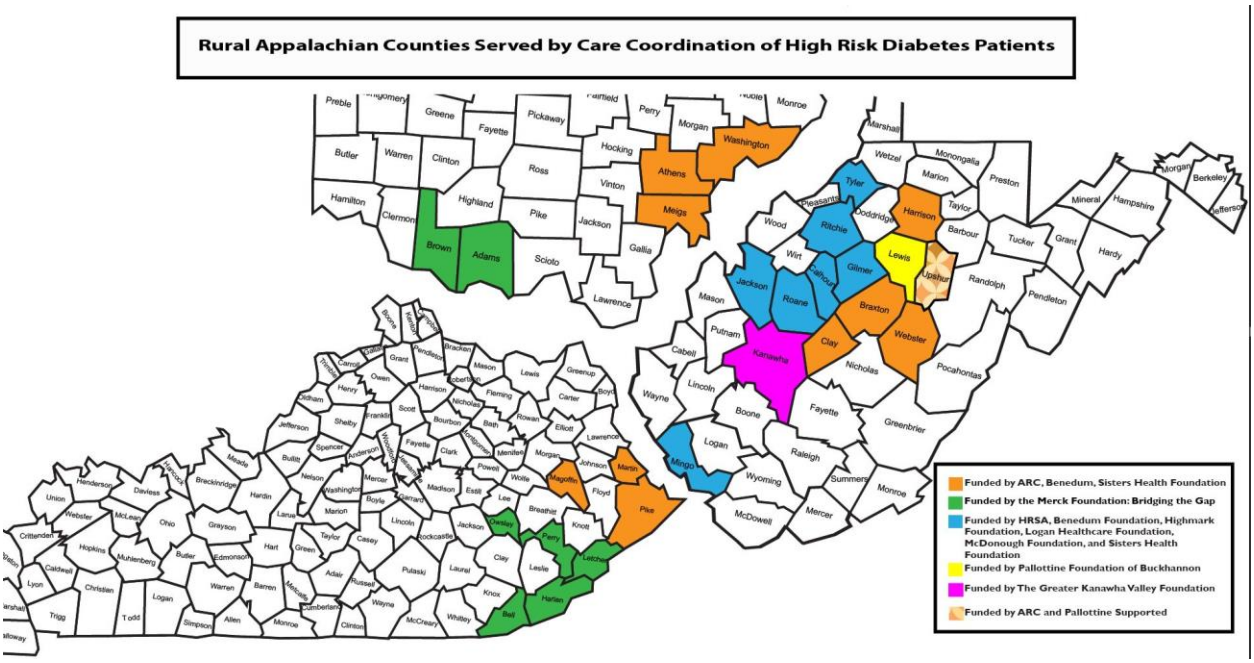
The sustained impacts of the Rural Health Care Coordination Network Partnership Program include:

Internal Systems: Reimbursement mechanisms are being explored and piloted at WHWC. maximizing reimbursements across payer groups. New work flows and order sets are being designed to help with care coordination changes. Some care coordination activities are now billable using CCM codes.

Organizational and environmental culture shifts: Providers have indicated that they see a value in care coordination and CHW activities in better serving patients. Patients and care givers have expressed that the project resulted in improved ability to control chronic conditions. We anticipate further data to demonstrate improved efficacy and quality of life among patients and providers.

Improved capacity in Health Information Technology: Our HIT infrastructure is strengthened as we begin incorporating shared care plans within the Electronic Health Record and other CCM time tracking tools. Project ECHO is also a part of clinic activities providing provider-to-provider telehealth support on specific patient cases with guidance from specialty care providers in a primary care setting.

Part VIII: Implications for Other Communities



Marshall University's Dr. Richard Crespo received an Appalachian Regional Commission POWER award to support the expansion of the Community Health Worker model in 17 locations across Ohio, Kentucky and West Virginia. Support for this expansion is also being provided by the Merck Foundation. Williamson Health & Wellness Center's role in expanding the intervention is to showcase the model and train new sites to implement the model. Replication of effective strategies to improve health across rural communities is part of our mission. The expansion work helps to make system change and establish the model as a long standing and cost-effective intervention in West Virginia and throughout the region.