St. Johnsbury Vermont Community Health Team: Evaluation Summary

Background

On the basis of the findings from a pre-evaluation assessment, the Centers for Disease Control and Prevention's (CDC) Division for Heart Disease and Stroke Prevention (DHDSP) and a panel of experts selected the Community Health Team (CHT) model in St. Johnsbury, Vermont, as a promising practice to prevent and control chronic conditions, such as hypertension. CDC, along with ICF International and the St. Johnsbury CHT leadership, conducted a mixed-method evaluation intended to (1) describe the program and identify practices and lessons that other programs might consider using and (2) determine the effect the CHT model has on patient outcomes related to quality of life, hypertension, and health care use.

Methods

The evaluation used a mixed-methods design. Qualitative methods included systematic document review and in-depth interviews with CHT staff members, health care providers, and Community Connections Team Community Health Worker (CHW) clients. Quantitative evaluation methods involved secondary data analysis from Community Connections Team Intake Forms and Electronic Health Records (EHRs).

Evaluation Questions

- What are the core elements of the St. Johnsbury CHT model?
- What are the factors that affect implementation of the St. Johnsbury CHT model?
- What is the reach of the St. Johnsbury CHT?
- What impact does the St. Johnsbury CHT have on patients' quality of life?
- What impact does the St. Johnsbury CHT have on patients' health?
- What is the added value of the St. Johnsbury CHT's efforts to improve quality of life on patient health outcomes?

Core Components of the St. Johnsbury CHT Model

The following figure and table depict the relationships between the core components of the CHT model in the community clinical context (Figure 1) and outline the five core components (Table 1).

FIGURE 1. Community-clinical linkages in the St. Johnsbury CHT model

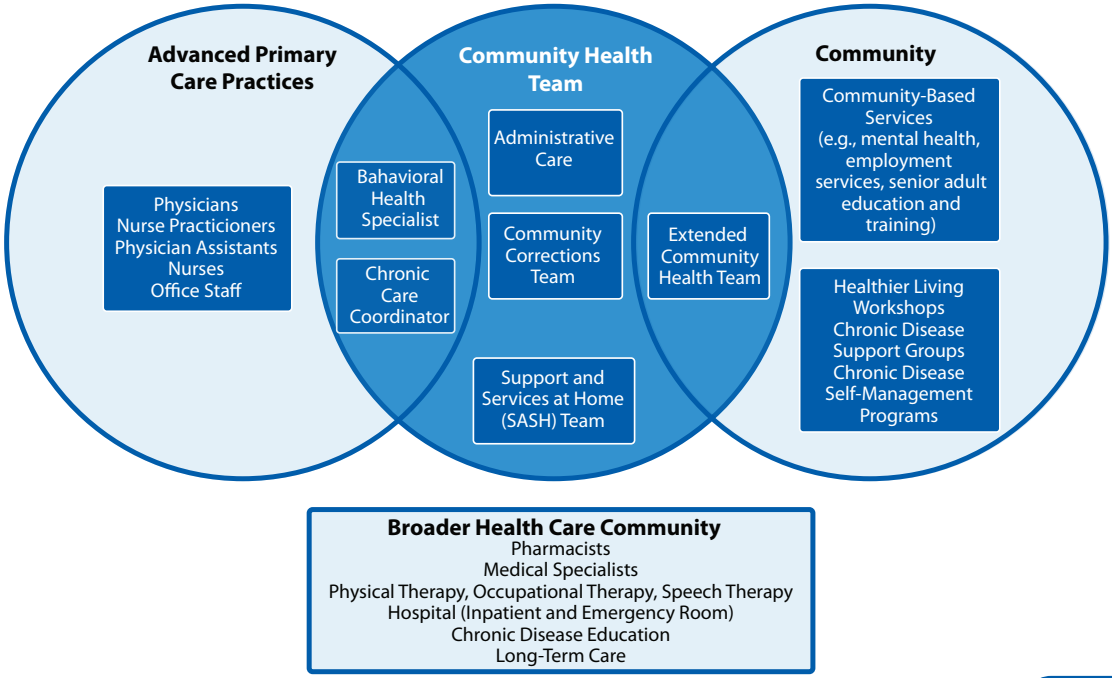

Table 1. Core Components of St. Johnsbury CHT Model

Core Components	Description
Administrative Core	A program manager provides managerial and programmatic support, as well as oversight, for the CHT. A care integration coordinator is responsible for overseeing CHT components and actively building and sustaining partnerships with community organizations collectively known as the Functional Health Team.
Functional Health Team	The Functional Health Team comprises approximately 30 community partners that provide a variety of services to the community. The Functional Health Team helps establish and maintain relationships that facilitate linkages between the community and clinical entities.
Community Connections Team	The Community Connections Team consists of CHWs and a chronic care CHW. Two CHWs are primarily responsible for linking clients to community-based and local state agencies that provide financial and other tangible resources to meet clients' needs, such as vouchers for heating and transportation assistance. A chronic care CHW provides similar services, but primarily acts as a health coach to clients to improve their self-management skills related to chronic disease. The Community Connections Team is managed by the care integration coordinator to promote integration with the larger CHT.
Advanced Primary Care Practices	The St. Johnsbury CHT model includes National Committee for Quality Assurance (NCQA)–recognized patient-centered medical homes, referred to as Advanced Primary Care Practices (APCPs). Working in collaboration with the health care providers, office staff, and other CHT members, chronic care coordinators are responsible for coordinating the care of patients with or at risk for chronic conditions. Behavioral health specialists provide short-term, solution-focused therapy to patients (three to eight sessions). They refer patients requiring long-term mental health services to mental health providers in the community.
Support and Services at Home*	Support and Services at Home (SASH) teams connect Medicare patients with health and long-term care systems in an effort to allow individuals to remain living at home safely. The SASH component implements specific interventions for the following key areas: fall prevention, medication management, control of chronic conditions, healthy behaviors, and cognitive and mental health issues. SASH was integrated into the St. Johnsbury CHT model in 2012. *This component was not included in the original scope of the VT CHT evaluation plan drafted in 2011.

Key Findings

The following are key findings related to the implementation, reach, and impact of the St. Johnsbury CHT model.

Factors Affecting Implementation

Facilitators:

- The CHT members and partners are familiar with one another and understand each other's roles and areas of expertise. These relationships help to facilitate collaboration.
- The CHWs on the Community Connections Team have a strong commitment to patients.

- Health care providers strongly support the CHT's implementation.
- Chronic care coordinators and behavioral health specialists are located within the APCPs.

Barriers:

- The workload for CHWs can be demanding at times.
- Chronic care coordinators and behavioral health specialists have to balance their time and workload across multiple APCPs.
- CHWs link clients with State and community resources for additional services. Sometimes, other agencies have very specific funding streams that may restrict the target population or the types of services that can be provided. These limitations can make it difficult for CHWs to secure assistance for patients.
- The role of the chronic care coordinator is interpreted differently across APCPs, resulting in turnover and difficulty hiring professionals with the right experience for this position.

Reach

- The St. Johnsbury hospital service area covers approximately 30,000 adults. As of March 2012, about 22,106 unique patients were cared for by the 5 APCPs in the CHT.
- All 5 primary care practices serving adults in the St. Johnsbury hospital service area are part of the CHT. This includes 29.5 primary care providers.

Health Care Practice-Level Outcomes

- Reaching a population in need.
  - Clients served by the Community Connections Team CHWs, chronic care coordinators, and behavioral health specialists appear to have more health needs than other medical home patients. A higher proportion of CCT clients were either insured by Medicaid, were current smokers, or had diabetes comorbidity compared with other medical home patients.
- Improved community-clinical linkages and enhanced care coordination.
  - Providers indicated that the CHT model allows them to link patients to other CHT members for support in addressing a full range of patient needs.
  - Higher proportions of patients exposed to one CHT component were also exposed to other CHT components. For example, among Community Connections Team CHW clients, nearly half were also patients of chronic care coordinators. Meanwhile, less than 10% of all Medical home patients were exposed to a chronic care coordinator. This suggests CHT staff successfully work together to coordinate care for the clients they serve.
- Streamlined primary care practice and increased efficiency.
  - Health care providers who participated in the evaluation expressed that the CHT model has helped to streamline their practices. The model provides opportunities for providers to use the limited time available during patient encounters to provide more comprehensive care. Providers also reported needing to do "less teaching and more referring," making office visits shorter.
  - The location and proximity of CHT staff within the primary care practices allows providers to take care of patients sooner and link them to services that will help get them out of crisis mode. Patients can get mental health services and other needs met often on the same day as their primary care visit.

Patient-Level Outcomes

Quality of Life Outcomes

- Improved well-being and increased support to address issues related to the social determinants of health.
  - There were statistically significant improvements among CHW clients in key aspects of well-being targeted by the Community Connections Team including health insurance, prescription drugs, housing, and health education. These areas align with constructs associated with social determinants of health and Healthy People 2020 objectives. Analyses indicate that these improvements may represent the difference of a client in a crisis situation and making progress towards stability.
  - CHW clients reported improvements in well-being because CHWs helped them with getting their basic needs met, such as completing "daunting" paperwork that resulted in supplemental nutrition assistance benefits, heating oil, supplemental income, support for hearing and sight aids, improved financial management, and housing assistance.

Health Outcomes

- Increased attentiveness to overall health.
  - CHW clients who participated in in-depth interviews reported that they were more aware and attentive to their overall health after receiving services from the Community Connections Team. This suggests that CHW efforts have the potential to ultimately impact the overall health of clients.
  - CHW clients also reported that getting assistance with prescriptions and transportation to appointments helps them manage their overall health. This suggests that CHWs efforts may help individuals better manage chronic conditions, such as hypertension.
- Increased patient adherence to treatment.
  - Primary care providers provided examples of patients who had dramatic changes in their health as a result of engaging with the CHT members, highlighting how the CHT has contributed to increasing patient adherence to treatment protocols. Examples included better compliance due to patient-led goal setting, making follow-up appointments, and employing tools to improve medication use.

Conclusions

- The St. Johnsbury CHT model is an example of a multidisciplinary coordinated team offering community-clinical linkages to a high need population in the community. Team members address clients' social determinants of health and provide an environment of support and empowerment so individuals can more effectively manage their health conditions. There is increased interest to implement and expand public health interventions that effectively address socioeconomic factors, the broadest base of the health impact pyramid, as these have the greatest potential population impact with the least required effort. While the findings from this study are inconclusive with regards to the effectiveness of the CHT model on long-term health outcomes like hypertension control, there are a number of findings supporting short-term patient-level outcomes that may lead to improved chronic disease management, including hypertension. Equally important are the benefits that this model brings to the health care system, including greater practice efficiencies, improved patient-centered holistic care, and patient adherence to treatment protocols.

Considerations for Program Replication

The following are some important key lessons to consider when replicating the St. Johnsbury CHT model:

- Conduct a systematic assessment of a community's needs and assets to help develop a program similar to the CHT model.
- Identify appropriate and sustainable funding sources for core CHT members.
- Provide early involvement to help facilitate collaboration and promote shared ownership of the team.
- Identify a program manager to provide oversight and serve as a central point of contact for the team.
- Identify a team member to serve as a care integration coordinator. The coordinator plays an active role in building and sustaining partnerships between the clinical entity and community organizations.
- Collaborate regularly with a team of community organizations, such as the Functional Health Team, to help facilitate linkages between clinical and community entities.

Notes

For more details on the evaluation study findings, implications, recommendations, and limitations, please send an e-mail to *arebheartinfo@cdc.gov.*

Additional implementation information can be found in the *Implementation Guide for Public Health Practitioners: The St. Johnsbury Community Health Team Model*, available soon on the CDC DHDSP Web site *http://www.cdc.gov/dhdsp/evaluation_resources.htm.*

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