

Cabin Creek Health Systems— Medical Assistants Provide a Senior Medical Home

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ABSTRACT

A federally-qualified health clinic in West Virginia trained a team of experienced Medical Assistants to provide risk assessments and care coordination to elderly patients, and to conduct home visits to frail elderly patients in remote rural areas. The organization partnered with the local community and technical college system to provide advanced training to the MAs, who receive a pay bonus and college credit for participation.

Setting

Cabin Creek is a small town in rural West Virginia.ⁱ This mountainous and heavily wooded area is famous for its coal-mining history, most notably the West Virginia Mine War of 1912-1913, in which martial law was repeatedly declared in a violent battle between mineworkers and mine guards over working conditions, unionization, wages and benefits. The original Cabin Creek Health Center (later Cabin Creek Health Systems) was established by the United Mine Workers of America in 1972 in response to growing health concerns over Black Lung and mining accidents.

However, coal mining employment has plummeted since the 1980's due to increased mechanizationⁱⁱ and Cabin Creek Health Center has evolved to address other community health concerns, including mental health, chronic disease and the care of the area's growing elderly population.

In 1999, Cabin Creek Health Systems (Cabin Creek) reorganized as an independent non-profit affiliated with West Virginia University School of Medicine, eventually becoming a Federally Qualified Health Center in 2002.

A number of other changes from 2004 through 2006, including new leadership, implementation of an electronic health records (EHR) system and adoption

Practice Profile

Name: Cabin Creek Health Systems

Type: Federally Qualified Health Center.

Location: Four locations in rural West Virginia near Charleston.

Staffing: 92 staff members across the 4 sites:

- 14.4 FTE providers (MDs, NPs, PAs)
- 7 FTE pharmacists & technicians
- 4.2 FTE mental health staff
- 22 medical assistants
- 6 billing and management staff
- 30 patient support staff (front office, janitorial and scanning)
- 4 care managers
- 6 administrators

Number of Patients: 13,000

Number of Patient Visits: 50,000

Patient Demographics: Service area includes ten rural census tracts in which poverty rates are 5.0% higher than the national average. Nearly a third of residents over 25 do not have a high school diploma. The service area is predominately (95.5%) white. Persons aged 65 and older comprise 16.3% of the population.

of various chronic disease initiatives led to changes in the roles and opportunities for medical assistants (MAs) employed by the organization.

Background

Prior to 2006, Cabin Creek MAs primarily roomed patients, took vital signs, called in prescriptions and scheduled patients for referrals. MA staff were fairly disengaged from providers and patients and had been provided with little background on patient care. These working conditions and low pay made it difficult to recruit and retain good MAs.

In 2005, Cabin Creek had a change in senior management. The new staff, some of whom had previously worked in private practice, recognized that although Cabin Creek was doing good work, it could be more efficient and utilize its MAs to greater advantage.

“There was limited, if any, critical thinking...providers and administration felt they could not trust them (MAs) to do anything on their own.”

-Chad Turner, MD, Medical Director-

In 2006, the organization implemented an electronic health record system and also participated in a national Diabetes Health Disparities Collaborative. The latter included sending a clinical provider champion and two MAs to a training session on diabetes self-management. This session was transformative in that it challenged both provider and MAs to re-assess the role of MAs in helping patients manage chronic disease. As the organization expanded its electronic health record system to all of its sites, it was able to take on more special projects related to preventive medicine and chronic disease management. It became imperative to train and retain skilled MA staff because the organization could not hire nurses to fulfill these functions.

Administrators then defined and documented all of the necessary processes to run the clinics and started re-assigning roles. They instituted a system of promotional steps and pay increases for MAs

based on experience and completion of specialized training, which was provided onsite.

Administrators also redesigned the structure of how providers (doctors, physician assistants and nurse practitioners) and MAs worked together, both in terms of workflow and physical layout. Prior to 2006, all of the MAs in the Cabin Creek clinic sat together at the MA station and generally interfaced only with each other. The new model was to pair each MA with one provider to ensure continuity of care for the patients. In order to enhance this relationship, they rearranged offices so that each provider shared an office with his or her MA.

Foundation Training

Earlier training initiatives served as a foundation for the Senior Medical Home project. Aside from the Diabetes Collaborative training mentioned above, all MAs were also encouraged to take part in a two-day workshop on motivational interviewing. The purpose of the training was to provide evidence-based communication methods for staff working with patients who should make behavioral changes to improve their health status or reduce risks. During the workshop, staff was trained to educate patients in self-management, and goal setting.

MAs have also attended other training programs, including a series on behavioral health issues affecting patients and sessions on communication to enhance problem-solving, promote strong clinical teams, reduce staff stress and improve responsiveness to patient needs.

“One of the challenges in rural health is staffing; even if we could afford them, we would have difficulty finding enough nurses in our rural communities.”

-Sandra M. Mitchell, COO-

New Roles for Medical Assistants

At Cabin Creek, MAs have been trained to fulfill most of the functions of nurses. West Virginia scope of practice laws allows for this as long as a

provider is supervising and authorizes the delegation of tasks.

MAs assist with surgical procedures, immunizations, blood draws, and other clinical tasks. Because of the electronic health record implementation and the adoption of a number of initiatives to address chronic diseases, MAs spend a great deal of time on information management. For instance, some MAs work to expand and manage the electronic registries. They can use the electronic health record system to review medications, using standing orders to refill non-controlled prescriptions the patient has been prescribed over the last six months, use a prevention screen to dialogue with the patients using the motivational interview training they received, and document calls and encounters in the electronic health record. Because Cabin Creek has an integrated model with behavioral health included, MAs may administer depression and substance abuse screening at intake. The MA may also serve as a scribe during patient visits if the provider lacks computer skills.

The Senior Medical Home

In 2009, the organization decided to address the needs of the area's significant elderly population.

In the decade from 1990-2000, West Virginia's population grew less than 1% with only a 0.5% increase in the population under the age of 65 compared to nationwide growth of 13.3% for this age group. Researchers attribute this and the large proportion of seniors in the state to the emigration of young people seeking work.ⁱⁱⁱ Sixteen-percent of the population in Cabin Creek's service area is elderly (over 65) and many live in isolated rural areas that make it difficult for them to access care.

Cabin Creek was contacted by researchers from West Virginia Center on Aging about the possibility of implementing a Senior Medical Home program. The goal of this program is to keep frail elders in their homes as long as possible and reduce hospitalization costs by providing seniors with resources and equipment to prevent injury and enhance their health.

This initiative entails an initial assessment for frail elderly status, in-home risk assessments and ongoing home visits with patients designated as frail elderly as well as care coordination, follow up and periodic office visits with providers.

The Senior Medical Home model had previously been implemented with nursing staff and found to be effective, but very expensive.

Training

Cabin Creek wanted to provide an appropriately comprehensive training for select MAs to implement this model and give them college credit for their participation. Cabin Creek initially wanted to work with the West Virginia University Institute of Technology to develop a curriculum for an in-house program, but found that the timeline for instituting a credit-bearing course or program would be several years. They were advised to contact the local Community and Technical Colleges instead.

Cabin Creek is the lead agency for both the West Virginia Rural Health Education Partnership and the Area Health Education Center (AHEC) in the four-county region. Both of these institutions develop and coordinate rural clinical preceptorships for health professions students, including medical, nursing, physician assistant, social work and pharmacy students. Cabin Creek administrators had already started the process of examining their MA training needs and community resources available for additional training. They had found that the MA training programs offered by the local community colleges were tailored for local hospital systems and entailed a great deal of administrative work rather than the more direct patient care typical at community clinics.

The Cabin Creek Education Director contacted Community and Technical College representatives and found them willing to work with Cabin Creek to develop a curriculum and find appropriate instructors that met their training needs for the Senior Medical Home program. Both parties recognized that the MAs needed to have training that was incorporated into their busy work schedules because their home responsibilities would likely preclude any extensive commitment outside of working hours.

The educators developed a 15-week course that was held from 4-5:30 in the afternoon every other week at facilities in nearby Charleston. MAs were given assignments in the clinical setting, which incorporated learning into their daily work. They received training in understanding the geriatric patient, how to use the Beers criteria^{iv} to evaluate the risk of non-prescription medications in elderly adults, and how to conduct in-home risk assessments. Representatives from different social service agencies gave presentations on topics such as living wills, medical power of attorney, and Medicare and Medicaid. MAs especially appreciated interactive training in which they were asked to try to put themselves in their patients' place in terms of physical limitations for example. The first cohort of seven graduated in May 2010.

Implementation

The Senior Medical Home adoption added an additional step in training, responsibility and pay for experienced MAs to work one-one-one with patients. MAs with extensive experience were chosen from each Cabin Creek site to participate in this program. Many of the selected MAs worked with providers who were champions of the initiative.

MAs working in this program assist in screening and identifying frail at-risk elderly patients at the clinic site. They conduct an initial 15-minute assessment with a screening questionnaire for the patient, and administer a grip test and additional screening checklists.

Once a patient has been identified as at-risk, the MA will schedule a home visit with the patient. Initiators felt that it was important for patients to see the same people visit their homes that they saw in the clinic because they would feel more comfortable with people with whom they were already familiar. The goal for each patient is at least one contact per month, including three home visits per year. Other contacts may include follow-up phone calls and in-office visits. MAs may check in more frequently, and send out monthly post-cards on prevention tips and even birthday cards to patients. Patients may also call in on their own.

MAs need to find time in their busy schedules to leave the office to conduct the home visits. This is generally during the time their provider has slated

for vacation or administrative work. MAs note that most patients live in remote rural areas accessed by winding dirt roads with little or no signage and that driving to these locations often takes up a lot of time. During home visits, MAs conduct a medication review and a home risk assessment with the patient. MAs also work with patients on goal-setting, and help connect them with the Cabin Creek information and referral specialist for additional services. MAs document visits using a template from their electronic health record system that includes an action plan for the patient which is forwarded to a licensed clinical social worker at Cabin Creek for further follow-up and resources. Providers also have access to these notes to use in following up on patient care.

There are a total of 400 patients in the Senior Medical Home initiative, but only 80-100 receive home visits based on risk criteria. Each of the six participating MAs has been assigned 10-36 patients for home visits. One MA has been promoted to senior medical home coordinator, which entails reviewing charts, following up after hospitalization and otherwise coordinating this program as well as conducting her own follow-up and home visits with seniors.

Resources

Staff Time: An initial team of about 15 staff contributed to the design of the Senior Medical Home initiative. Staff continue to meet monthly to discuss issues related to the initiative.

MAs need covered time to conduct in-office assessments, home visits and follow-up—which require on average ten hours per month. A senior MA is assigned about 20-hours a week to serve as coordinator for the Senior Medical Home project. The social worker provides information and resource services to seniors referred to her by the MAs.

Because they use their own vehicles, MAs are also reimbursed for travel expenses incurred for conducting home visits.

Training Resources: Resources required for training included the time of the Education Director to develop a curriculum and work with the local community and technical college to implement the course series. The licensed clinical social worker on

staff also contributed to recruiting speakers for the session. MAs were paid for participation in the training for approximately two hours every other week for 15 weeks, with one-half hour paid as overtime. Cabin Creek also covered tuition costs.

Cabin Creek worked with faculty and administrators from the Bridgemont Community and Technical College in Montgomery, the West Virginia Center on Aging in Parkersburg, and with a consultant from New River Health Association in developing the Senior Medical Home. The community and technical college faculty and the consultant were paid out of the AHEC funding .

Financing: The Senior Medical Home training program utilized some AHEC funding and \$25,000 worth of funding provided by the Claude Worthington Bennedum Foundation.

The community and technical college is being paid for participation in the training efforts, but will also benefit by being able to expand training and get its students hired.

Challenges

General: When the organization first transitioned to more demanding roles for MAs, leadership encountered some resentment from MAs, who were asked to take on more responsibility, and some resistance from providers and administrative staff who did not think MAs were up to the tasks they were being assigned. This was exacerbated by the fact that the organization changed MA roles and adopted an electronic health record system almost simultaneously. The electronic health record system proved a tough learning curve for some staff and providers. The Cabin Creek experienced high provider turnover over the decade, but currently has a group of relatively new, computer-proficient providers who are willing to work closely with the MAs on innovative projects.

Senior Medical Home: Some of the MAs found it difficult to go to the trainings because they were so busy and it was difficult to find anyone to cover for them. Likewise, working time into the already busy schedule of the Medical Assistants to conduct visits and meet with their providers about cases has proved a major challenge. The original goal of four

home visits per year per patient had to be reduced to three.

Cross-training other MAs to cover for those conducting in-office assessments or home visits might help facilitate scheduling. Administrators are working on ways to facilitate more time for providers, MAs and the case worker to meet formally to discuss cases.

MAs working on the Senior Medical Home project become close to their patients, which can be difficult as well as rewarding. Because the patients are very elderly, a number of them have died, which has been emotionally difficult for some MAs. Visiting an elderly and often low-income senior in his or her own home develops a bond and requires that the MA set appropriate boundaries with the patient. For instance, patients may expect much more of the MA than the MA can provide in terms of emotional and material support. Not being able to locate enough resources to address patients many needs has proven frustrating. MAs may also feel concerned enough about the conditions in which they find their elderly patients to consider calling Adult Protective Services.

“You see how (patients) live and what barriers they face, you understand them better, how they eat, how they live, especially where medications are concerned, when they say “oh, I cannot afford that.” You kind of take for granted that everyone lives like you do. This was an eye opener.”

-Nancy Dudley, Medical Assistant-

Patients are sometimes functionally illiterate and often have limited educations, but are simultaneously very proud and independent and do not like to complain. This may make it difficult to provide them with patient education materials and may prevent them from accessing resources.

MAs and their families may have concerns for their own safety as they drive alone to remote rural areas where their cell phones and wireless laptops do not work.

Financing for Senior Medical Home: Current costs for the Senior Medical Home are covered by grant-funding. In order to provide enough coverage for the current MAs to participate more fully, Cabin Creek might need to hire more MA staff, which would increase costs. Administrators are investigating patient-centered medical home provisions in the new federal healthcare reform bill to determine whether there are any sustainability possibilities in the legislation.

Administrators calculated that ongoing funding of the Senior Medical Home Initiative would require \$70 per patient per month (PMPM) to cover costs for frail elderly, but should provide cost-savings long-term in reduced hospitalization rates.

“I enjoy my job better; I like getting more involved with the patient. You get tired of taking temperatures and blood pressure.”

*-Paulette Burdette, Medical Assistant,
Senior Medical Home Coordinator-*

Outcomes

The prior innovations and improvements in MA roles have yielded some beneficial outcomes, most notably an improvement in organizational culture.

The re-organization, training and empowerment of MAs has allowed Cabin Creek to take on many special projects, including the Senior Medical Home.

By expanding the number of clinic sites and increasing productivity, Cabin Creek has significantly increased patient volume. Between 2004 and 2006, the number of patients increased by 70% while the number of patient encounters increased by 53%. The cost per encounter decreased from \$103 per encounter prior to 2006 to \$83 per encounter in 2006. The Cabin Creek is working towards the goal of seeing 20 patients per provider per day. The implementation of the electronic health record system and the revision of the MA role has helped providers to see more patients and improve documentation.

Anecdotally, the organization now has low MA turnover, but prior to the reorganization, it was “constant” due to the low pay, low-esteem, and boring nature of the work.

“I don’t think it is busier; it is more rewarding.”

-Nancy Dudley, Medical Assistant-

The Senior Medical Home program is in its earlier stages and it is too early to assess clinical and organizational outcomes.

A study on a similar initiative implemented by the Indiana University Center for Aging Research^v utilizing social worker/nurse practitioner teams found that elderly program participants were more likely than comparison group members to have their conditions recognized or diagnosed and less likely to be hospitalized over a 2-year period. While patient and provider satisfaction levels were high for both participant and comparison groups, participant providers were much more satisfied with the resources available to treat patients. Overall, the Indiana University program was cost neutral. If the Cabin Creek model is successful in providing similar services utilizing MAs instead of NPs, it *may* entail considerable cost-savings along with providing beneficial outcomes for patients and providers.^{vi}

MA Career Impacts

Promotional Opportunities: Due to initiatives undertaken to change the structure of the organization and role of MAs starting around 2006, MAs now earn an average of \$13-14 per hour as opposed to the eight dollars an hour they made prior to that time. There is a formula for pay increases based on the number of years on the job, certification and the various training modules they may complete. For instance, employees receive \$0.25 more per hour for participating in the Senior Medical Home model, \$0.15 more per hour for participating in motivational interview training and \$0.30 for being an electronic health record ‘super-user’ who can train new staff in how to use electronic health record systems. Cabin Creek generally prefers to promote from within, and there

are additional opportunities for MAs to serve as team leaders, care coordinators and site managers.

Benefits: MAs received one hour of college credit for participating in the Senior Medical Home training program.

In general, MAs receive paid time off, 9 paid holidays per year, life insurance, one day of sick leave for every one month of full time work, health insurance including dental and optical, and profit sharing, which currently entails 5% of salary contributed to a profit-sharing plan with a three year vesting rule.

Satisfaction & Aspirations: MAs reported experiencing greater job satisfaction as a result of taking part in the Senior Medical Home initiative and other initiatives. MAs also noted that the families of patients often expressed gratitude to them for their work, which was an additional bonus.

“With the passage of healthcare reform there is no better time to expand the roles of medical assistants in the community health center setting. Over the next four years more Americans will become insured and community health centers are being asked to double the numbers of patients they serve. These patients will receive medical home services where the medical assistant is an important member of the patient’s care team.”

-Amber Crist, Education Director-

Future Plans

Because of the success of the Senior Medical Home course and the collaboration between Cabin Creek and the local CTC, the group decided to start a statewide initiative to provide ongoing training for MAs at community clinics statewide. During the summer of 2010 the group began holding a series of DACUM (“Developing A Curriculum”) sessions to

prepare a curriculum with input from MAs, providers, nurse supervisors and administrators from across the state.

Courses are projected to begin in the Fall of 2010. These courses may eventually lead to a certificate program, depending on the needs of the clinics involved. Courses may be held near Charleston, or via teleconferencing for accessibility reasons.

For the statewide initiative, the AHEC will reimburse travel for staff to travel to the curriculum development sessions and provide lunch. The AHEC also has a contract with the CTC to cover its costs. The clinics will have to cover staff time for participating staff. For the first course, the AHEC will cover the tuition, but after that, clinic leaders may need to work out a structure for the MAs to pay part of the tuition. However, they are concerned that requiring the MAs to pay any of the costs would serve as a disincentive. Long-term, participants may be able to impact the development of a more standardized career ladder for MAs in community clinics.

Cabin Creek is exploring how health care reform legislation, particularly the new emphasis on the “medical home” model, might impact the sustainability of this program and shape the organization’s future plans.^{vii}

Replication and Lessons Learned

Interviewees believe that their model could be replicated elsewhere. One noted that to do so, an organization must invest in its MAs by valuing the role, respecting the individuals, and providing adequate education. The fact that Cabin Creek also hosts the Area Health Education Center and Rural Health Education Partnership allows the organization to take advantage of opportunities available for rural health care education.

The organization developed a guideline based on the pre-requisite “Three Ts” for developing a quality initiative:

- **Tools:** Develop medical record templates, educational materials, frailty determination scales, an electronic survey to collect health status info from patients, etc.

- **Team:** Identify who is supporting the effort, define who is on the team and develop their roles.
- **Training:** Design and carry out training and education; set up time to meet and develop some cohesion.

With the Senior Medical Home initiative, Cabin Creek has adapted a program previously implemented with nurses for use with medical assistants. If it is successful in this endeavor, it will serve as a model to other clinics seeking to address the needs of frail elderly patients in a cost-effective fashion.

Overall, Cabin Creek has found that valuing and optimizing the role of medical assistants by providing enhanced training, responsibility, and compensation has allowed it to take on a number of special projects to better address the health care needs of the surrounding community.

Notes

- The clinics are located in rural West Virginia in a region that has been designated a Health Professional Shortage Area and a Medically Underserved Area. Both are federal designations that have ramifications for funding and loan repayments for eligible providers willing to serve in these areas.
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- Program details may be significantly different, making comparisons of outcomes difficult.
- The Patient Centered Medical Home is an approach to providing comprehensive care, which includes integration of patient care across different sites and services coordinated by a primary personal physician. Under this approach, some public and private payors may provide funding for patient-care management services provided by non-physician staff such as medical assistants. See National Center for Quality Assurance guidelines, <http://www.ncqa.org/tabid/631/default.aspx> Accessed September 14, 2010.

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Views expressed in this case study are those of the authors and do not necessarily reflect those of the Center for the Health Professions; the University of California, San Francisco; the Hitachi Foundation; Cabin Creek Health Systems; or Bridgemont Community and Technical College in Montgomery.

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