

BILLINGS CLINIC: A CARE TEAM REDESIGN CASE STUDY

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Introduction

What if one key to improving the quality and delivery of health care in the United States is held by frontline clinical support workers? This question lay at the heart of the Care Team Redesign (CTR) Initiative, a multiyear effort to transform workforce practices and the delivery of care in four high-performing primary care systems.

The U.S. health care system is plagued by high costs that too often yield middling patient care outcomes. Some attempts at solving this problem have focused on taking a team-based approach to delivering care. Such an approach provides more support to overburdened doctors and nurses, while improving the management of patient data.



Billings Clinic

However, there have been few efforts that really focus on the most common support staff members in primary care teams —medical assistants (MAs). Launched by the Hitachi Foundation in 2014, the Care Team Redesign Initiative sought to change that. It challenged each of the four primary care systems to develop career ladders for their MAs and find new tasks and roles for them within the care team. The sites each took a different approach to this challenge, but all fundamentally shifted roles and responsibilities on their care team, with the goals of improving patient care and increasing efficiency.

As part of the CTR Initiative, Billings Clinic in Montana was one of the four health care systems that each received a \$200,000 grant from the Hitachi Foundation. Each organization also received technical assistance from the Healthforce Center and the Center for Excellence in Primary Care, both at the University of California, San Francisco.

After the Hitachi Foundation closed in 2016, the Care Team Redesign project continued through a collaboration involving the Good Companies, Good Jobs Initiative at the MIT Sloan School of Management and the Good Companies, Good Jobs Initiative at the Aspen Institute. A third-party evaluation of the results was subsequently conducted by a team of academic researchers, led by Jennifer Craft Morgan of Georgia State University's Gerontology Institute. This case study describes the changes Billings Clinic made and the outcomes that resulted.

About Billings Clinic

Billings Clinic, located in Billings, Montana, is an integrated, multispecialty group practice. The clinic is Montana's largest health care organization, comprised of a 304-bed hospital and a Level II trauma center.

Billings Clinic is also one of Montana's largest employers, with more than 4,300 staff members across more than 50 specialties. Professionals at Billings Clinic work together to provide coordinated and complete care. Billings Clinic's mission focuses on health care, education and research, and the organization's vision is to be a national leader providing the best clinical quality, patient safety, service, and value.

How the Redesign Project Got Started

The Billings Clinic Care Team Redesign project came out of building a strategic focus at the clinic on meeting increasingly rigorous patient-centered medical home (PCMH) standards and an accompanying strategic focus on a transition to panel management and population health. (For more information on PCMH standards, see box on p. 3.) The Billings Clinic Care Team Redesign project was focused on improving patient access and becoming accredited as a patient-centered medical home (PCMH). Because Montana is a large, rural state, many patients have to drive long hours in order to reach the clinic. Billings Clinic's leadership believes that a PCMH model emphasizing team-based care, population health, and telehealth options could help improve patients' access to primary care. As members of the care team growing in both numbers and importance, medical assistants (MAs) have a critical role to play in that change process. At the start of the project, primary care at Billings Clinic was heavily overstaffed with registered nurses (RNs) often employed to support the physicians. MAs were in similar support roles where hired. Billings Clinic would eventually like to shift these RNs into other roles that will make better use of the RN skill set and increase the number of MAs working to support providers in the clinics.

How It Works

In its Care Team Redesign effort, Billings focused heavily on building a robust training infrastructure keyed to the development of a comprehensive scope of practice for MAs throughout the organization. The purpose of this program was to rebalance the clinic-based workforce to expand the role of MAs and redistribute nurses to other population health roles. Billings Clinic intended to instigate improvement in vaccination rates, referrals to mammograms and colonoscopies, and diabetes and hypertension control. MAs who, through the redesign, have better training in these areas and closer relationships with patients, are likely to have better prevention scores overall. To this end, the Billings MA-focused Care Team Redesign project had four main goals:

- a) Standardizing competencies among current MAs in primary and specialty practices through competency-based assessment and one-on-one training as needed;
- b) Building a curriculum that includes advanced skills in care coordination, electronic health record (EHR) documentation, panel management, and peer education;
- c) Revising and improving the onboarding process for new MA hires;
- d) Developing and implementing a four-level career ladder for MAs.

Redesigning the model of care. At the start of the grant period, most providers were supported by either an MA, a licensed practical nurse (LPN), or an RN, even though some positions did not warrant the specific type of

support staff assigned to them. Some LPNs and MAs were used in analogous support roles (e.g., rooming, filing). In some practices, providers are now supported by more than one MA. In this 2 MA: 1 provider model, an MA does the pre-visit work, rooms the patient, fills in templates for history, scribes during the patient encounter and does the “depart” work with the patient in scheduling follow-up care, tests, and appointments. Billings appears committed to more extensive use of the 2 MA: 1 provider model but it is not yet widespread. There is, however, now differentiation across clinics in the roles of MAs, with MA 3s doing injections, procedure support, and panel management tasks. MA 4s are used as lead MAs in larger clinics or as MA educators.

Billings Clinic’s original plans for care team redesign included more widespread use of the 2-MA model in the clinics. However, Billings made the choice to focus on the MA scope of practice and subsequent educational infrastructure, letting providers decide whether they wanted to engage in the 2-MA model for now and delaying implementation of health coaching roles for MAs beyond the small amount of patient goal review in the “depart” process.

Health System Characteristics and Other Implementation Context

Accreditation and quality improvement. Billings Clinic is a magnet facility. Billings Clinic has also received Level II PCMH Certification and is currently working toward Level III goals. Billings Clinic is also heavily focused on operational excellence and utilizes a Lean Six Sigma approach based in part on the Toyota Standard; thus, a major driver is to redesign work to be more efficient and patient-centered. In support of this effort, one of the program managers for the Care Team Redesign project is a Lean Six Sigma Green Belt for the organization. The Care Team Redesign project, which has changed the scope of work of MAs and also, ultimately, of nursing staff and providers, is just one part of an overall change toward this strategic aim.

Leadership structure. Billings Clinic is a physician-led but professionally managed organization. Leadership is described as following a “dyad” model, with physician and nonphysician leaders coupled at each level. For example, there is a VP of Clinic Operations working in partnership with the Chief Medical Officer, and at the next level down there is a Director of Primary Care who works with the Physician Department Chairs of Internal Medicine

Patient-Centered Medical Home (PCMH)

The patient-centered medical home model represents a change in the way primary health care is delivered in the U.S. The five core attributes of the PCMH as defined by the U.S. Agency for Healthcare Research and Quality are:

1. **Patient-Centered:** The PCMH supports patients in learning to manage their care based on their own preferences and ensures that patients, families, and caregivers are fully included in the development of care plans.
2. **Comprehensive Care:** The PCMH offers whole-person care from a team of providers that is accountable for addressing most of the patient’s physical and behavioral/mental health needs, including not only acute and chronic care but also prevention and wellness.
3. **Coordinated Care:** The PCMH ensures that care is organized across all elements of the health care system, from specialty care and hospitals to home health care and community services.
4. **Accessible Services:** The PCMH provides shorter waiting times for urgent issues, improved in-person hours, 24/7 electronic or telephone access, and communication through health information technology.
5. **Committed to Quality and Safety:** The PCMH is committed to quality, quality improvement, and the use of data and decision-support tools to assist patients and families in making informed decisions about their health.

Adapted from:
www.pcmh.ahrq.gov/page/defining-pcmh

and Family Medicine. This model is implemented at the clinic level as well, where a lead provider is paired with a clinic manager.

Staff shortage. Billings Clinic has historically had an easier time recruiting LPNs and RNs than MAs but has recently struggled with shortages of both. In the early 2000s, there was a local two-year medical assistant program accredited by the American Association of Medical Assistants as well as a two-year LPN program. At the time, Billings Clinic would preferentially hire the LPNs over the MAs. The MA program was discontinued, and at the start of the study period there were only two MA training programs in the entire state of Montana; the closer of the two is nearly four hours from Billings Clinic. The LPN program also changed to a program training LPNs to become associate RNs, so Billings Clinic also lost its pool of new LPNs. Consequently, Billings Clinic was left recruiting primarily RNs.

“We’ve had a lot of challenges being able to hire LPNs and instead we’re being forced to hire RNs. . . . Then there’s not even a pool of CMAs [Certified Medical Assistants] out there that are available . . . [but] we cannot keep hiring the RNs. At my clinic, when I started here eight years ago we had one RN. Now we’re up to seven RNs. In an outpatient setting, it’s really not necessary.” —Clinic manager, baseline site visit

However, there is now a shortage of RNs, LPNs, and MAs among ambulatory settings in the area. This shortage is described as affecting both Billings Clinic and its primary competitor in the area, St. Vincent Healthcare.

Local availability of MA training programs. At the start of the Care Team Redesign program, the AAMA-accredited medical assistant program that used to be offered through a local college was discontinued. The only remaining program was a program that was supposed to prepare MAs to successfully take and pass the certification exam, but the training offered was primarily didactic (e.g., teaching by having students watch videos online). Billings Clinic discontinued its relationship with that program at that time. Since the grant, that program has redesigned its MA curriculum and Billings Clinic has re-partnered with the program by taking externs. By the end of the grant period, another local MA program — Charter College — had started an MA program in Billings. Billings is now also taking externs from the Charter College program on a regular basis for clinical training and has been successful in recruiting MAs directly from its extern pool to work for Billings Clinic.

Electronic Health Record (EHR). Being competent in charting and with the EHR is important for MAs at all experience levels. A clinic manager stated, “The EHR plays a big, big part of their job because a Level I MA can’t take any verbal orders. It has to be a written order until they get comfortable. They have to be computer-savvy.” All messages go through the EHR. The EHR contains clinical decision support, reminders, and other supports for panel management (e.g., health registry). A related consideration as Billings Clinic shifts increasingly toward a population management model is the different documentation needs under this model, and how MAs and nursing staff can support providers in managing this.

Supportive infrastructure and HR policies. Billings Clinic has infrastructure in place to support staff development. Billings Clinic has a robust learning management system and a simulation lab that was put in place

to support its residency program. At the outset of the program, the learning management system had a strong medical terminology series that served as a foundation for specific components of the new MA curriculum, and additional classes are offered on a quarterly basis. Billings Clinic also has a tuition reimbursement policy in place for staff who have been employed by the organization for six months.

Implementation Strategies at Billings Clinic

Clarifying the MA scope of practice. The Montana Board of Medical Examiners is not very explicit about the scope of work for medical assistants because MAs practice under physician supervision. At the beginning of the project, one RN clinic manager noted, *“It’s a very big gray area of what they can and can’t do . . . [MA] scope of practice is like a paragraph in our state!”* In some respects, this lack of clarity could be viewed as highly permissive. However, Billings Clinic has historically been much more restrictive in the scope of practice for its MAs. Consequently, much of the Care Team Redesign project was spent developing a revised scope of practice for MAs with Billings Clinic, determining how that scope might vary for MAs at different levels and skill sets so as to have no negative impact on patient safety, and then getting a comprehensive scope of practice approved across the organization. Initially, there was some resistance within the organization to allowing MAs to perform certain tasks. However, interviewees described this attitude as gradually changing over time.

Modifying the MA career ladder. Adjusting the scope of practice for MAs at Billings Clinic resulted in the implementation of a new, four-level career ladder for MAs.

- MA Level 1 is an entry-level position for those without prior experience working as an MA (e.g., a staff member switching over from registration, phlebotomy, or a CNA position at the hospital). This MA level requires certification or registration following 15 months on the job or within 90 days after completion of an MA training program.
- MA Level 2 is for registered or certified MAs or for those who have worked at Billings Clinic for at least six months and have also satisfied other criteria; these MAs can give three types of injections to adults and can order prescription refills for patients.
- MAs who have the experience or skill sets to perform certain specific job duties can be promoted to Level 3. Being a registered or certified MA is a requirement for achieving this tier. At Level 3, MAs can give up to 10 types of injections to adults.
- MA Level 4 consists of experienced registered or certified MAs who work as lead peer educators and preceptors.

By implementing these levels, Billings Clinic hopes that other members of the care team (LPNs, RNs, and providers) will be better able to work to the top of their licensure. For example, LPNs should be able to spend more time on health coaching and patient education, thereby freeing physician time to see more patients. In primary care clinics that are heavily overstaffed with RNs, Billings Clinic would eventually like both to shift these RNs into other roles that will make better use of the RN skill set and to increase the number of MAs working to room patients and support providers. Billings Clinic is requiring MAs to take the MA certification exam with 15 months of hire if they did not complete a formal MA program and within 90 days if they completed a formal MA program. Billings Clinic is supporting this process by proctoring the test and paying the testing fee.

Engaging other team members in implementation of the program. Senior leadership is very supportive of the Care Team Redesign project, in large part because it fits in with an overall desired culture change at Billings Clinic. As the organization becomes more patient-centered and shifts toward a population management approach, there is a need to change workflow and innovate. Buy-in from all clinic providers and staff (coordinator, clinic manager, providers, nursing staff, and MAs) was identified as critical to the program's success. One critical success factor in garnering support from other members of the care team has been the effort put into carefully documenting MA scope of work as well as the time spent on developing a robust training program. Another critical success factor has been demonstrating to primary care providers that highly qualified, certified, or registered MAs are capable of safely performing some tasks that Billings Clinic had traditionally only permitted LPNs and RNs to do. Exposure to qualified MAs is described as playing a role in winning the providers over. However, because of the shift toward the PCMH model, primary care providers in general are ready to support a model that involves the expanded use of MAs.

[On winning providers over] “When their nurse would call in sick, we’d say okay well, [MA Level III]’s going to be working with you today. This is what she can and can’t do. . . . Basically, what they found is the MA was meeting their needs. So the next time their nurse was on vacation or sick, they were perfectly fine with having an MA because then they knew and felt comfortable with what they could and couldn’t do . . .” —Clinic Manager, follow-up site visit

Buy-in from nursing was described as more challenging. One respondent noted that while providers just want the job done and don't care about the title of the person doing it, nurses may feel more threatened by MAs' increased scope of work. The respondent suggested more time may be needed to engage nurses on the actual scope of practice for MAs and how any changes would (or would not) affect their own work. One clinic manager explained that these issues may be exacerbated in her clinic because nurses are aware that once an RN leaves, she does not intend to replace that position with an RN but instead with an MA position. However, one important success factor is that Billings Clinic has an expressed commitment to not engage in layoffs. Thus, when considering redesign and other efforts to control the costs of health care, Billings Clinic has promoted the Care Team Redesign project as part of an overall effort to maximize value and efficiency by having people work to the top of their license. The commitment to no layoffs has likely helped alleviate some nursing staff concerns.

Outcomes Achieved

Improved patient satisfaction. The expanded and tiered role of the MA, at the outset, was seen as likely to increase patient satisfaction through multiple mechanisms including: (a) a more streamlined patient encounter, (b) better relationships between MAs and patients, and (c) a focus on preventive care and addressing gaps between services.

Billings Clinic changed patient satisfaction metrics midstream for the Care Team Redesign effort, so no clinic-level data can be interpreted over time. However, there were several examples from MAs about better relationships with patients that suggest some impact on the patient experience. For example, one clinic manager noted that the process was much more streamlined for the patient and staff:

“Previously when we had MAs that came in that couldn’t do influenza injections during flu season, that’s tough because then that requires somebody else to have to . . . go and do it, and if you have the . . . MA who can do all of those things, it just is such a smoother transaction. The patient gets one person in the room, they get this, this, this, and this all in one — it’s like a one-stop shop. They did everything right then and there.” —Clinic Manager, follow-up site visit

“We have a handful of MAs that we have gotten some very nice compliments . . . from patients . . . I love that they get those compliments from the patients, job well done. We share those with them, and they get a “You Are Great” card or a little special treat or something from leadership.”—Clinic Manager, follow-up site visit

Increased patient access/efficiency. Currently, Billings Clinic has a centralized scheduling process. One goal of the program is to have a more mixed model where patients needing more urgent access can go to the staff at a particular clinic, and an MA managing the physician’s schedule can slot them in as needed. This has been implemented in some of the busier clinics where MAs have taken a larger role in working directly with central scheduling to better manage emergent scheduling issues. Further, when an additional MA has been used, the administration has worked with clinics to increase numbers by two patients per day to cover the costs of an added FTE (after an initial approximately six-month start-up period). This too, serves to increase patient access to providers. One physician who is implementing the new model, with one LPN and one well-trained MA 3 taking turns documenting in the EHR during the encounter, reported that his patients were significantly happier with both having access to the MA or LPN who has greater knowledge of the encounter and with the greater access to him. He claimed to have increased the number of patient slots by about one-third over his previous numbers.

Improved prevention scores. During the grant period, Billings Clinic improved rates of fall risk assessment, pneumococcal vaccination, body mass index (BMI) screening, tobacco cessation screening, mammographies, and depression screening.

Standardized MA job description and roles at each level. Standardization of MA job descriptions will allow providers to use MAs at a higher level and feel confident in skills when using float pool or other practice-level MAs when their usual MA is temporarily out. This will also enable clinics to standardize work to MA levels, as they can be confident in what MAs at each level are able to do and what they know.

“I think [the MA levelling] has been really good for our staff. I think it’s given them some motivation and some incentive to continue and to learn more. I think definitely they like the financial piece of it for them. I mean obviously that’s a great motivator.” —Clinic Manager, follow-up site visit

“You know, I think that the pay rate is a little bit more equitable and fair for them now. Again, it incentivizes them to level up. I think that it’s been a little bit more impactful for [the] payroll part of the

budget, but sometimes paying them a little bit extra helps them, you know, they want to be here, they want to do a good job. It motivates them to do that, so to me it's a fair compromise.” —Clinic Manager, follow-up site visit

Through the Care Team Redesign project, Billings Clinic has increased the number of MA 3s by 15 from January 2015 to July 2017. The organization currently also has three MAs at Level 4 who serve as lead MAs and peer educators. The table below summarizes the changes to average hourly wages by level across the grant period.

MA Level	Average Hourly Wage, January 2015	Average Hourly Wage, July 2017
MA 1	\$13.92	\$14.47
MA 2	\$15.44	\$16.20
MA 3	\$17.40	\$18.12
MA 4	N/A	\$19.23

Increased job satisfaction (MAs and physicians). Providers engaged with patients and with teaching have greater satisfaction and reduced burden where MAs are able to streamline the patient encounter, deal more effectively with the EHR, and have an increased role in ensuring that preventive health care is recommended and obtained. In survey data collected from care team members at Billings Clinic, care team members reported higher job satisfaction, better relationships with care team members, and greater satisfaction with MA skills after the Care Team Redesign program was implemented. MAs will also hopefully feel empowered, engaged, and rewarded as they move up the career ladder that has been organized to standardize and accelerate their skills growth. For example, MAs reported significantly more positive relationships with care team members after the Care Team Redesign program was implemented. The aim is also to improve retention, as retention is sometimes a problem, and recruitment is very difficult for Billings Clinic because of its rural location.

Sustaining the Changes

Billings Clinic’s Care Team Redesign project has resulted in lasting changes across the organization. Some of those changes include:

Billings Clinic is using qualified MAs in key leadership roles. Billings Clinic has hired a lead MA responsible for educating MAs in collaboration with nurse educators and clinic leadership. As primary education coordinator, this MA serves as a role model for other MAs regarding what they can accomplish within the organization and also as an ambassador to primary care providers who will, through her leadership, help providers understand the broad knowledge base and skill set MAs achieve through accredited MA programs. Billings now has a total of three MA 4s working in lead MA roles.

Billings Clinic's training resources. New hires are assessed with a department skills grid and have skills sign-off sheets, so they can work with their mentor in their department to require needed skills. The majority of this training (for common skills such as injections) is integrated into the learning management system so MAs can continue to accrue skills at their own pace and get higher level MAs, LPNs, and RNs in their practices to supervise and sign off on their skills demonstrations. These sign-offs accumulate to help MAs move up the career ladder. Through this approach, Billings Clinic's educational team has trained 135 MAs across the four levels.

Billings Clinic has begun an extensive onboarding process for MAs. Because it is not feasible for Billings Clinic to require entry-level MAs to be certified or registered due to geographically based shortages and a lack of nearby programs, it is imperative that new hires be assessed and, where deficient, acquire the competencies needed to perform the scope of work for their MA level. This onboarding process includes a chance for these entry-level MAs to shadow existing MAs, study for the basic skills and core medical assistant training, and be mentored by experienced MAs. As mentioned earlier, Billings Clinic now requires new hires who enter without formal training to complete and pass the MA certification test within 15 months of hire, while newly hired MAs who have formal training are required to pass the MA certification test within 90 days of hire. Because the test is a requirement, Billings pays for the testing and an MA 4 is a proctor for the exam. This further standardizes training and helps MAs meet the requirements to move up from an MA 1 to an MA 2.

Billings Clinic has developed a partnership with a local MA training program to improve recruitment of well-trained MAs. Billings Clinic accepts students from both Billings Adult Education Center and Charter College. Charter College in the Billings area has opened an MA training program in response to the demand for MAs. Billings Clinic has partnered with the Charter College program to provide clinical externships for its students. These students are assigned to various clinics and are precepted by MA 3s within those clinics during their externships. In this process, the externs learn clinical skills and Billings Clinic's policies and procedures. This program has been successful. Of the 20 Charter College externs who have successfully completed their externship and program, 11 were offered positions and nine were hired at Billings Clinic.

Billings Clinic has transformed its care teams to encourage all members to work to the top of their scope of practice. Before the Care Team Redesign project, Billings Clinic's MAs had variable training prior to hire, were used for basic rooming and clerical skills, and had little prospects for advancement. The work Billings Clinic had done to transform training and career development is manifest in the different roles now held by MAs in the clinics. In all clinics, MAs have a clear role in the patient experience. About five providers at Billings Clinic are now successfully using well-trained MAs to be present during the patient encounter and help document the encounter in the electronic health record. Across the clinics, MAs are taking on more advanced tasks that are routinely done in the clinics (e.g., injections, reviewing records, complex scheduling, medication history), freeing up nurses for case management and care coordination activities. MAs are continuing to take on roles in identifying care gaps and queueing up prevention measures (e.g., mammograms, colonoscopies) according to prevention protocols. Finally, advanced MAs are taking on roles in precepting externs and new hires.

The Care Team Redesign Evaluation Team

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