GOOD COMPANIES GOOD JOBS

CARE TEAM REDESIGN: TRANSFORMING THE ROLES OF MEDICAL ASSISTANTS IN PRIMARY CARE

Case Study: Billings Clinic

Billings Clinic

Billings Clinic, located in Billings, Montana, is an integrated multi-specialty 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 over 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 their vision is to be a national leader providing the best clinical quality, patient safety, service, and value.

How It All Got Started

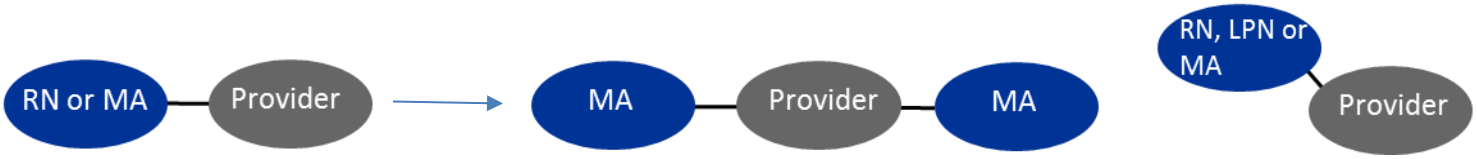
The Billings Clinic Care Team Redesign project came out of building a strategic focus at the clinic on meeting increasingly rigorous patient-centered medical home (PCMH) standards (see definition below) and an accompanying strategic focus on a transition to panel management and population health. The 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 the PCMH model, emphasizing team-based care, population health, and telehealth options, could help improve patients' access to primary care. As a member 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 RNs often employed to support the physicians. MAs who 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 Clinic 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 in diabetes and hypertension control. MAs who have better training in these areas and closer relationships with patients through the redesign, 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 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 a medical assistant (MA), licensed practical nurse (LPN), or registered nurse (RN), even though some positions did not warrant that specific staff member due to what was available in the market. Some LPNs or MAs were used in analogous support (e.g. rooming, filing) roles. Where possible, providers are now supported by more than one MA where feasible and if the physicians choose to employ two MAs. In this model, like DPC's encounter specialist model, the MA does the pre-visit work, rooms the patient, fills in templates for history, scribes during the encounter and does the "depart" work with the patient in scheduling follow-up care, tests, and appointments. Billings Clinic appears committed to more widespread use of the 2 MA: 1 provider model but this is not yet widespread. There is, however, 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. Billings Clinic's original plans for redesign included widespread use of the two-MA model through the clinics. Billings made the choice to focus on the scope of practice and subsequent educational infrastructure, letting providers decide whether they wanted to engage in the two-MA model for now and delay 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 how 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 ultimately, also 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 and professionally managed organization. Leadership is described as following a 'dyad' model, with a physician and non-physician leader 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 and Family Medicine. This model is implementated 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 AAMA-accredited medical assistant program and 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 in the entire state of Montana; the closest of these is nearly four hours from Billings Clinic. The LPN program also changed to a Bridge program (from LPN to associate RN), so Billings Clinic also lost its pool of 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 out there that are available… [but] we cannot keep hiring the RNs. At my clinic when I started here 8 years ago we had 1 RN. Now we're up to 7 RNs. In an outpatient setting, it's really not necessary." –Clinic manager, baseline site visit***

However, there is now a RN, LPN, and a MA shortage in the area in the ambulatory setting. This shortage is described as affecting both Billings Clinic and its primary competitor in the area, St. Vincent Healthcare.

Patient-Centered Medical Home (PCMH)

The five core attributes of the PCMH as defined by the Agency for Healthcare Research and Quality are:

1. Patient-centered: The PCMH supports patients in learning to manage and organize their own care based on their preferences, and ensures that patients, families, and caregivers are fully included in the development of their care plans. It also encourages them to participate in quality improvement, research, and health policy efforts.
2. Comprehensive Care: The PCMH offers whole-person care from a team of providers that is accountable for the patient's physical and behavioral/mental health needs, including prevention and wellness, acute care, and chronic care.
3. Coordinated Care: The PCMH ensures that care is organized across all elements of the broader health care system, including specialty care, hospitals, home health care, community services, and long-term care supports.
4. Accessible Services: The PCMH delivers accessible services with shorter waiting times, enhanced in-person hours, 24/7 electronic or telephone access, and alternative methods of communication through health information technology (HIT).
5. Committed to Quality and Safety: The PCMH demonstrates commitment to quality improvement and the use of data and health information technology (HIT) and other tools to assist patients and families in making informed decisions about their health.

https://www.pcmh.ahrq.gov/page/defining-pcmh

Local availability of MA training programs. At the start of the CTR program, the AAMA-accredited medical assistant program that used to be offered through a local college was discontinued. The only remaining program was a "Nite Owls" program. Initially, the Nite Owls training 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 their relationship with them at that time. Since the grant, the Nite Owls has redesigned their curriculum and Billings Clinic has re-partnered with them by taking externs. By the end of the grant period, another local MA program – Charter College – had started an MA program in Billings. In addition to Nite Owls, Billings is now taking externs of the Charter College program on a regular basis for clinical training and has been successful in recruiting MAs directly from the 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 (LMS) and a simulation lab that was put in place to support its residency program. At the outset of the program, the LMS 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. Finally, Billings Clinic also has a tuition reimbursement policy in place for staff that have been employed at Billings Clinic for six months.

Implementation Strategies at Billings Clinic

Clarifying the MA scope of practice. 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 grey 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: *"In many cases, they can do pretty much anything the physicians deems 'em competent to do'."* 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 to have no negative impact on patient safety and getting a comprehensive scope of practice approved across the organization. Initially, there was some resistance within the organization to allow MAs to perform certain tasks. However, this attitude is described 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.

- MA Level I is an entry-level position for those without prior experience working as a 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 a MA program.
- MA Level II 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 that have the experience or skillsets to perform certain specific job duties can be promoted to Level III. Being a registered or certified MA is a requirement to achieve this tier, which is accompanied with a 5% pay increase. At Level III, MAs can give up to ten injections to adults.
- MA Level IV are registered or certified MAs who work as lead peer educators and preceptors.

By implementing this levelling, 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 to shift these RNs into other roles that will make better use of the RN skillset and increase the number of MAs working to room patients and support providers in the clinics. Billings Clinic is requiring MAs to take the MA certification exam within 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 through proctoring the test and paying for 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 program 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 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 towards the PCMH model, primary care providers in general are ready to support increased MA model.

> ***[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 healthcare, they have 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 streamlining 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 depart 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 back on 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. In that regards I think that they have done an outstanding job." –Clinic Manager, follow-up site visit***

Increased patient access/efficiency. Currently the organization 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 a 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, as leveling has been implemented, an additional MA FTE has been used, administration has worked with clinics to increase numbers by two patients per day to cover the costs (after an initial approximately 6 month start-up) of the added FTE. This too, serves to increase patient access to providers. One physician, implementing the new model with one LPN and one well-trained MA 3 with each staff taking turns documenting in the EHR during the counter noted, when asked

about changes in patient satisfaction, that his patients were significantly happier with 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, pneumococcal vaccination, BMI screening, tobacco screening cessation, mammographies, and depression screening.

Standardized MA job description and roles at each level. This 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 usual MA is temporarily out. This will also enable clinics to standardize work to MA Levels as they can be confident in what MAs in 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 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. They currently also have 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 preventive healthcare 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 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. This is also aimed at improving retention for both as retention is sometimes a problem and recruitment is very difficult in this setting because of rural location.

Sustaining the Changes

Billings Clinic's Care Team Redesign project has resulted in permanent 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 education of 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 for 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 Clinic 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 acquire needed skills. The majority of this training (for common skills such as injections) are 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. Billings Clinic's educational team has trained 135 MAs through this project 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 lack of nearby programs and geographically based shortages, 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. Billings Clinic now requires new hires who enter without formal training to complete and pass the MA certification test within 15 months of hire. Newly hired MAs that have formal training are required to pass the MA certification test within 90 days of hire. Because it is a requirement, Billings Clinic pays for the testing and the MA 4 from clinic administration 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. Billing Clinic has partnered with them to provide clinical externships for their 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 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 their 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 has 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. While scribing (where MA helps document the encounter in the electronic health record during the patient encounter with the provider and patient), about five providers at Billings Clinic are successfully implementing this using now well-trained MAs. MAs, across the clinics, are taking on more advanced skills which are routinely done in the clinics (e.g. injections, reviewing records, complex scheduling, medication history) which frees 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.

Hitachi Care Team Redesign Evaluation Team

Dr. Jennifer Craft Morgan is an Assistant Professor in the Gerontology Institute at Georgia State University in downtown Atlanta. Her primary research interest is in workforce studies within health care organizations. She has led six major funded projects evaluating the impact of career ladder, continuing education and financial incentive workforce development programs on health care worker outcomes, quality of care outcomes and perceived return on investment for health care organizations and educational partners. She has published and presented widely in both scholarly and practice-based outlets. Her work seeks to tie research, education and service together by focusing on the translation of lessons learned. This translation of research into lessons and tools serves to help stakeholders, such as employers, program implementers, and workers, to build evidence- based solutions to pressing problems.

Dr. Janette Dill is an Assistant Professor in the Sociology Department at the University of Akron in Akron, OH. Dr. Dill's research focuses on the organization of work, particularly in the health care sector, and the intersection of gender and care work. Her current research focuses on job quality in the health care sector for adults without a college degree and the challenges of reorganizing work in primary care clinics. She is co-investigator on The Care Team Redesign evaluation grant, funded by the Hitachi foundation. Her research has been featured in *the New York Times*, *The Atlantic*, the *Harvard Business Review*, and other press outlets.

Dr. Emmeline Chuang is an Assistant Professor in the Department of Health Policy & Management. Her research focuses on how the organization and management of health and human services affects service access and quality of care, particularly for underserved populations. She is particularly interested in organizational factors that affect adoption, implementation, and sustainment of complex, service-based interventions, and in understanding how inter-organizational relationships and organizational policies and practices affect behavior of frontline staff and ultimately, service access and quality of care for patients. Recent projects include an evaluation of facilitators and barriers to implementing a patient-centered medical home model for women veterans in VA primary care and women's health Clinics, a study of primary care team and Clinic-level factors affecting human papillomavirus uptake, an evaluation of contextual and organizational factors affecting implementation of two multilevel multisector obesity prevention and control interventions for low-income children and families, and a study of organizational supports that facilitate evidence use by private child and family serving agencies in six states.

Dr. Chivon Mingo is an Assistant Professor in the Gerontology Institute and Affiliate Faculty in the School of Public Health Partnership for Urban Health Research at Georgia State University. With a strong interest in health outcomes and healthcare care, Dr. Mingo has centered her work on minimizing the impact of negative health outcomes in underserved groups through the design, evaluation, implementation, and dissemination of behavioral health interventions. Specifically, she has been able to explore the barriers and facilitators that impact availability, acceptability, cultural relevance, utilization, completion, and fidelity of an evidenced-based interventions for chronic disease management. Most recently, Dr. Mingo served as the Principal Investigator on a National Institute on Aging (NIA)/Michigan Center for Urban Aging African American Research (MCUAAAR) funded project to assess barriers and facilitators to utilization of the Chronic Disease Self-Management Program in the Atlanta Region. Dr. Mingo is highly engaged in other funded research projects focused on health and health related interventions. Her knowledge in intervention design, evaluation, and delivery translates seamlessly to the knowledge needed in development and evaluation of health care workforce interventions that will not only influence the health care worker but also the patients that they serve.

Dr. Crystal Warren Williams is an Assistant Project Director with the Gerontology Institute at Georgia State University. Dr. Williams manages the Hitachi Care Team Redesign National Evaluation Project. She provides research and administrative support in grant management, survey administration, qualitative interviews, data analysis, and research dissemination. Dr. Williams has a Doctor of Public Health (DrPH) in Behavioral and Community Health Sciences. Prior to joining the Hitachi evaluation team, Dr. Williams worked with health and human services organizations and consulting firms, providing applied research support and project management for evaluation studies, and strategic planning and leadership development initiatives focusing on policy and systems change necessary to improve community health and achieve health equity.

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