

UC Davis Family Practice Center—Medical Assistants Anchor Residency-based Medical Home

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ABSTRACT

In response to long wait times and low patient satisfaction scores, the University of California, Davis Medical Center Department of Family and Community Practice redesigned its residency-based Family Practice Center into a Patient-Centered Medical Home (PCMH). This model expanded the role of medical assistants (MAs) by providing them with additional training and responsibility. Because of their relative permanency, MA staff serve an integral role in teaching residents how to work in a PCMH. UC Davis is one of the first residency programs in California to incorporate the PCMH model into its training.

Setting

Prior to 2008, patients at the UC Davis Family Practice Center often faced long wait-times. Clinic hallways were a hectic bustle as staff and providers scrambled to provide high-quality patient care while training the next generation of doctors, physician assistants and nurse practitioners.

The long patient wait-times, low productivity, inter-staff conflict and issues with patient privacy spurred the group to look at making physical and workflow changes in the clinic.

The Center is a residency-based clinic, which supplies special challenges and opportunities to workflow redesign. There are 24 exam rooms, 22 ongoing part-time faculty providers, and approximately 42 part-time residents who rotate through in 3-year cohorts. Residents have changing clinic schedules based on the different phases of their residency. MAs, on the other hand, are full-time permanent staff with institutional knowledge of day-to-day clinic operations.

Background & Inspiration

The UC Davis Medical Center is a comprehensive academic medical center located in Sacramento, the state capitol. It includes a teaching hospital, a

Practice Profile

Name: University of California, Davis, Family Practice Center

Type: Residency-based academic primary care practice

Location: Sacramento, California

Staffing: 64 providers, approximately 8-14 per ½ day session:

- 22 faculty providers
- 42 residents

A total of 35 FTE staff:

- 14.0 FTE medical assistants
- 6.0 FTE management staff including medical director, practice manager, residency coordinator and 2 clinical nursing supervisors
- 15 FTE clerical/ administrative staff including reception, schedulers, authorizations and medical billers/coders

Number of Patients: 17,000-20,000

Annual Patient Visits: 35,000

Patient Demographics: Diverse ages, incomes, and ethnicities, including new immigrants and refugees. One-half receive Medicaid.

medical school, research facilities, and 18 specialty and primary care clinics in 10 communities.

The Lawrence J. Ellison Ambulatory Care Center, a UC Davis outpatient facility, houses the Family Practice Center, which is the central ambulatory training site for the Department of Family and Community Medicine. The Department also sponsors the Family Nurse Practitioner/ Physician Assistant Training Program and faculty from both programs work at the Center.

Around 2005-2006, the Center adopted several new initiatives to improve the patient experience. They changed their scheduling and appointment policies to enhance access and started implementation of an electronic health record system (EHR) to manage patient records. However, they determined that they needed to go further and systematically examine their entire workflow design to develop a more patient-centered and efficient practice.

This was especially important because the primary goal of the residency program is to “train excellent family physicians” who will eventually establish their own practices. This led the group to explore an emerging approach to health care: the patient-centered medical home (PCMH).

The Patient-Centered Medical Home

The PCMH model of care is gaining popularity across the United States in the wake of the Health Care Reform bill. The model encompasses a number of key principals, including the following:¹

- *Personal physician*: "each patient has an ongoing relationship with a personal physician trained to provide first contact, continuous and comprehensive care."
- *Physician-directed medical practice*: "the personal physician leads a team of individuals at the practice level who collectively take responsibility for the ongoing care of patients."
- *Whole person orientation*: "the personal physician is responsible for providing for all the patient's health care needs or taking responsibility for appropriately arranging care with other qualified professionals."
- *Care is coordinated and/or integrated* across all elements of the health care system and the patient's community. Care is facilitated by information technology and other tools to aid in coordination.
- *Quality and safety* are to be assured by a care planning process in which patients and clinicians participate as partners. Evidence-based medicine, clinical decision-support tools, and performance measurement guide decision making.
- *Enhanced access to care is available*, including open scheduling, expanded hours and open communication between patients and practice staff and providers.
- *Payment must "appropriately recognize[s] the added value provided to patients"* via the PCMH. Payment should reflect the value of "work that falls outside of the face-to-face visit," include the work of ancillary providers and additional communication with patients outside the patient visit.

The Center is applying to the National Center for Quality Assurance for recognition as a medical home. This recognition is important in the changing healthcare environment because PCMH recognition may qualify organizations for additional payment as acknowledged in the final point above.

Laying the Foundation

Key staff visited the University of Utah Health System to learn from their “Care by Design” model, which utilizes medical assistants in a team-based model of care. They also visited other California sites to learn about alternative ways of designing workflow and studied Lean Process Improvement and the Disney Business Model for ideas.

The Center staff started by making a number of changes to the physical infrastructure of the Center that facilitated workflow redesign.

Information Technology: The Center adopted the EPIC electronic health record system (EHR) in 2006. In 2008, additional changes were made in order to make use of the new technology in facilitating workflow redesign. The organization placed a computer terminal and a printer in each of

its 24 exam rooms. In most rooms, terminals are equipped with a flexible arm that allows MAs and providers to call up and input data before, during and after visits and show information to the patient. The in-room printer allows clinicians to print out an after-visit summary and patient education materials to discuss with the patient in the privacy of the exam room. The Center also began customizing the EHR to facilitate workflow redesign and expanded use by ancillary staff.

Staff uses another software system, Invision, for functions such as registration and scheduling and other connecting software systems for billing and co-payments. In the next 1-2 years the Center will integrate these functions, including referral management, billing, registration, and scheduling, into EPIC and replace the older systems.

Scheduling: The Center moved early to open access scheduling, which allows patients to be seen the same day they request an appointment, if appropriate. The Center also increased the length of all visit slots to 30 minutes.

“We like the Disney idea of value-added waiting time—the entertainment should start while you are in line before you even get to the ride.”

-Angela Gandolfo, Practice Manager-

Waiting: A number of innovations helped the Center to decrease the average cycle time by half. The Center also determined that it needed to make the remaining wait time “value-added” time. The lobby now features a kiosk with a computer on which patients can access health information while they wait. An electronic wait-time board lets patients know how long their wait is likely to be, and also flashes brief health messages. Sacramento State University Health Education interns may arrive to conduct lobby talks on selected topics while manning a “SmartCart” filled with health education materials.

Finally, the clinic is working on installing health education videos on their server so they can invite patients to watch videos on selected topics either in

the exam room or in a soon-to-be completed “patient education theater”.

Staffing: The Center began re-designing its nursing and medical assistant workflow in late 2008. The clinic currently has 35 staff FTE, and this has not changed over the last several years. What *has* changed is the configuration of the staffing.

The Center enhanced productivity by more than tripling the number of medical assistants on staff. Initially, the Center had 4 MAs and 4 RNS and 27 FTE clerical and administrative staff. As RN and clerical staff left for new positions or retired, they were replaced with MAs where appropriate and the Center now has 14 MAs. There are now approximately 1.25 MAs per provider.

The clinic initially had three staff tasked with discharging patients. Bottlenecks would result when these staff were busy or absent, as patients and other staff would wander through the clinic looking for the discharge coordinators. MAs now handle the discharge process in the exam room. One of the discharge coordinators left for outside employment and the other two were retrained for other positions within the organization.

MAs are also being taught new administrative skills over time. For example, starting in 2008 they were trained to schedule and handle referrals. The eventual goal is to replace most of the clerical staff with MAs.

Instead of an RN supervisor, the usual structure for a UC clinic, the Center has 1) an operations supervisor, who supervises the clerical and medical office services coordinators (MOSCs); 2) an MA supervisor, who supervises the medical assistants; and 3) an LVN (licensed vocational nurse) supervisor who supervises the two LVNs and the billing and coding staff.

Training and Startup

Startup: This model was rolled out in stages. In 2008, the Center piloted the model for about 6 months with the staff at one of their three nursing stations before rolling it out to the other two stations. The staff in the pilot group were trained to do scheduling, post-visit summaries, and other new processes during this time.

Overall, staff were kept informed of the plans for change through a number of meetings held with the practice manager, the physician champion for this model, and other staff. They were told they would move to working with one doctor per shift, and that their roles would change. Staff were encouraged to participate in this process and contribute ideas.

Staff received computer training for about one year in 2008/2009 before the EHR was fully integrated into their roles to get them up to speed on the new software. Some staff were designated as “super-users” to assist other staff in learning the new system.

Staff also received in-service training to conduct retinal screening and vibration pressure testing with patients who might be diabetic.

Ongoing: The staff currently receives weekly trainings during lunch and daily team huddles to keep them current on policy changes, clinical issues, and the day’s workflow.

MA staff have to pass basic clinical competencies for their core MA role on an annual basis. Additional competencies were added to reflect work in the new model, including the following:

- Scheduling/Registration
- Financial and Payer Plan Coding
- Referral Management
- Authorization
- Medication Refill Management
- EHR Patient List Functionality
- Minor Procedure Assisting
- Care Management Notes
- PQH9 Depression Screening
- Chronic Disease Management Self-Management Support
- Ancillary Test/Procedure Coordination
- Diabetes Retinal Scanning

The Medical Home in Practice

There are two provider shifts per day. MAs are assigned to a team of 3-4 residents that rotates through in half-days, although each MA only works with one provider per shift. An MA will generally stay with the same two exam rooms all day while faculty and resident providers rotate through.

Because of the residency structure, MAs and the exam rooms are the constant in the equation. This system works very well for teaching as the MAs serve as guides, helping the residents to learn the procedures of the practice. The new model acknowledges and formalizes the contribution the MAs make to the training process.

The Center has developed its workflow to try to keep most processes in the exam room with the same staff member (the MA) guiding the patient through the entire visit and “closing the loop” at the end. This has made it easier to coordinate and track visits and has eliminated the necessity of the patient making multiple stops throughout the facility. The goal is to cover everything in one visit so that patients receive all necessary testing and screening and leave with a referral in-hand or follow-up visit scheduled by the time they leave the office.

Huddle: The 15-minute team huddle at the start of each half-day shift includes residents, faculty, billers, supervisors, MAs and other staff. Staff distribute a two-page “Huddle Bulletin” covering topics for the week, and a resident selects a topic from the newsletter to discuss in detail. Clinical supervisors, billing staff, and MAs contribute to the discussion by providing updates, announcements and explanations of the importance of administrative and procedural issues such as proper coding, seeking pre-authorization for medications, and rules and laws regulating activities at the practice. At the end of the huddle, providers meet with their MAs individually to discuss the day’s patient schedule.

Providers: On a typical day, there are two shifts of providers. A typical shift includes 14 providers of which ten are residents in their 1st-5th year in residency and four are practicing faculty providers. In addition to the practicing faculty providers, there are three to four faculty who serve as preceptors.

MA Roles: MAs perform traditional medical assistant tasks such as calling the patients back for the exam, collecting and documenting vital signs and rooming the patients. They conduct several screenings at the start of the visit, including PQH9 depression screening at every visit, a smoking cessation intake questionnaire, and a race and ethnicity intake questionnaire.

MAs conduct medication reconciliation for the patient, which entails taking a complete list of all of the patient's current medications and reviewing it to avoid medication errors. MAs stage prescription refills and send them to the providers for approval.

The clinic has in-house equipment to conduct retinal screenings for diabetes. All of the MAs have been trained to conduct these screenings. Screens can be sent directly to the Ophthalmology Clinic in the building for assessment. MAs conduct VPT or Vibration Perception Threshold tests to check for loss of protective sensation in diabetic patients.

MAs may also assist with various procedures and perform EKGs and ultrasound for OB/GYN as necessary. Two of the MAs are certified phlebotomists, and some have been certified as pharmacy technicians and limited license radiologic technicians. After rooming and preparing the patient, MAs leave the patient in the exam room for the provider visit, utilizing a system of colored lights to determine when to return to assist with procedures or discharge. The light system was suggested by one of the MAs on staff.

When both lights above the exam room door are off and the door is open, the exam room is empty. When both lights above the exam room door are off and the door is closed, a staff member or a provider is with the patient. When the red light above the exam room door is on, the MA has roomed the patient and the patient is ready for the physician.

When the green light is on, the provider requires the assistance of an MA or an LVN. Finally, when both lights are on, the patient is ready for discharge. MAs can also track the status of the visit on the EHR via a system of colored dots.

When the red and green lights come on, the MA returns to the exam room and conducts the entire discharge process in the room, including scheduling of follow up appointments, specialty referrals, and printing out the after-visit summary for the patient. MAs also hand patients a patient satisfaction survey at the end of each visit. These surveys are analyzed on a monthly basis for trends.

MAs also serve on hiring panels when new MAs are being interviewed and develop their own questions for candidates.

LVN Roles: The role of the remaining nursing staff, the licensed vocational nurses, or LVNs, has also changed. Prior to redesign, there was an LVN at each of the three nursing stations. However, practice managers found that the MAs deferred to the LVNs, and there was competition rather than cooperation between the stations. They relocated the LVNs on the floor to their own room where they can spend personalized time with patients as necessary. At the end of a visit, if a patient needs immunizations or procedures that are outside the MA's scope-of-practice, the MA escorts the patient to the LVN's room for follow-up. While this approach is somewhat counter to the general ethos of keeping all of the patient care in the exam room, it did improve cooperation between staff, exam room turnaround, and the security of medication supplies, which are now centralized in this room.

Resources

Development Costs: It took the leadership team approximately 160 hours over a period of 60 days to pre-plan and connect process improvements to the overall redesign model.

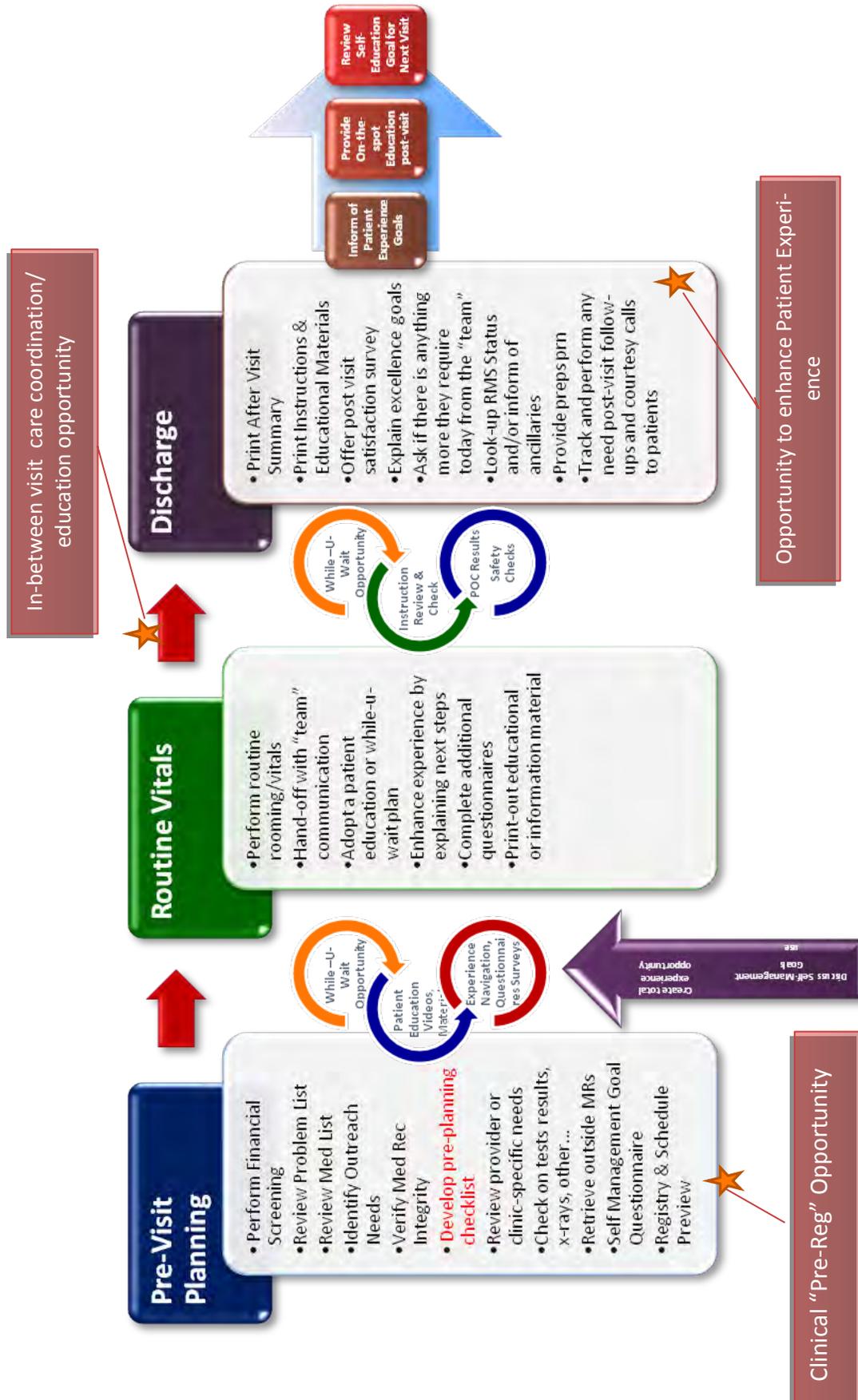
Initial planning included a clinic redesign meeting once a week for one hour over lunch. The ten-member team included physician and administrative champions, residents, students, faculty and frontline staff. The cost of lunch served as an incentive to encourage participation.

The team also incurred some costs in visiting other sites, including attending a Learning Day to observe the University of Utah Community Clinics "Care by Design" model.

The leadership team strongly believes that a practice *can* successfully initiate workflow redesign and process improvement without additional funding or staff if it has a sound redesign plan, experienced leadership with background in process improvement, and staff engagement. Organizations initiating redesign can save costs by identifying and visiting local sites that are implementing promising practices. Many organizations are willing to share what they have learned without a fee. Some organizations might want to engage outside coaches or consultants, which would incur additional costs.

Patient-Centered Clinical Transformation Model: Medical Assistant Enhanced Role 2010-2011

Figure 1. Medical Assistant Role Transformation



Source: Angela Gandolfo, Practice Manager, UC Davis Family Practice Center

Training: All start-up training was done on work time and arranged so as not to interrupt the workflow. The initial training for the 14 medical assistants was done in 2-4 hour blocks for payer training and Invision/scheduling training. For specialized competencies such as Diabetic Retinal Screening and PHQ9 Depression Screening, 1 hour was required for each topic. Staff also received training on the new EHR, which required about 4 hours of class-room time with IT trainers. Some staff were designated as EHR “Super-users” and they and leadership staff trained first with provider champions so that they could conduct one-on-one training with the other staff. These one-one-one sessions took approximately 1 additional hour of time. This resulted in a smooth rollout of the new EHR system.

Information Technology: Adding a terminal and printer in each room was a part of the overall redesign model and was paid for out of the health system IT budget. The cost was about \$40,000 with wiring, ports, PC, flexible arm installation, and other necessary accessories. The Center paid for the printers out of its own budget. The cost for the in-room printers was approximately \$250 per room at the time. The Center spent money on the hardware and additional paper usage, but saved money in decreased staffing costs. The Center is using Epic for its EHR, which comes with numerous functions and tools pre-loaded. It still needed to customize this interface to fit the practice, so the Center developed internal EHR groups to support standardized changes such as developing their own customized procedure templates, SmartPhrasesⁱⁱ and SOAPⁱⁱⁱ note templates. They also had the assistance of an EHR team at UC Davis for some of these changes.

Challenges

The major challenges to implementing this model include institutional barriers to redesign and staff advancement and initial staff resistance to change.

Physician Providers: Obtaining the buy-in of providers did not prove to be as much of a challenge at the Center as it has been at other clinics implementing redesign and expansion of MA roles. Providers were more willing to adopt the change than were the staff. Many of the providers are residents who are new to the clinic and family practice in the first

place, and the rest are academic faculty who serve in a part-time capacity.

There was a lot of communication and education with provider faculty about the change process and some were involved in developing the new model. Faculty providers were reportedly quite positive about the workflow and design changes, especially the concept of having a printer in each room. There was a physician champion for the change and the residency director and chair of the department were both very supportive. The faculty are invested in preparing residents to work effectively in practice. Because many of the residents will go on to work with Kaiser Permanente, which uses a similar EHR and workflow model, the redesign provides them with a residency experience more aligned with their likely future employment.

Printers in each exam room play a critical role in facilitating the MA's ability to close the visit and insure patient privacy and convenience.

However, staff reported some challenges with orienting providers to the new processes. Providers had to get used to the idea of using the light system. They also had to get used to the idea of working in a team model with their assigned MA rather than just “grabbing” anyone on the floor to assist when they needed help. Finally, some providers were not showing up to the huddles, or not showing up on time, so a supervisor was assigned to page them to remind them to show up.

Staff: Managerial staff made the decision to transition to the “MA model” through attrition. Clerical and RN staff that have retired or left have been replaced with MAs (or LVNs) where feasible.

The “no layoff” mode of change through attrition helped insure buy-in from both staff and providers. Because of this policy, they also faced no problems with AFSCME, the union representing MAs, LVNs and RNs.

However, at the start of the process, the incumbent MAs were overwhelmed because they did not understand the entire plan for the transition. They saw more work, and more complex work, being assigned to them.

Learning the scheduling system was difficult for some of the MAs, and many were not entirely comfortable with computers when the new EHR was implemented. There were two different computer systems because their practice management and electronic health records systems were not fully integrated. MAs had to learn Invision, a DOS-based system for scheduling and discharge, and EPIC's EpiCare for check-in and recording vitals.

“[At first] it was panic city around here...I was *not* happy with this.”

-Dorinda Olson, MA II-

Eventually it became clear that the workload would become lighter as more MAs were hired to assist and as they got over the learning curve. Staff were encouraged to help each other learn the new system, which went a long way in building confidence.

One MA noted that the really big challenge, in retrospect, was not learning new clinical and administrative skills but in shifting her mindset about the work.

Legal Scope of Practice: Managerial staff at the Family Practice Center have been championing the MA-based model to other departments in the UC Davis Health System. Some supervisors in other departments have expressed concern about the MA role usurping the RN role within the UC Davis Health System.

There are a few scope-of-practice limitations inherent in the MA/LVN-based model. However, there is not that much that the Center cannot do without RNs, and there are work-arounds. For example, according to Title 22, MAs in hospital-based clinics cannot administer immunizations or injections. MAs cannot conduct patient education beyond handing the patient a pamphlet. LVNs *can* do the injections, but cannot do IV pushes or advanced triage. The residency structure has proved an advantage in this respect: with 60+ providers on staff, there is always someone available to answer patient questions. Patients can also directly email their doctor with questions.

Institution: There is a limited career ladder for MAs within the UC system, which includes three “rungs”:

MA I, MA II, and MA supervisor. Moving staff up to the MA II level has financial ramifications for the clinic and the institution and requires establishing that employees are performing work that meets the specifications of that classification. Because some affiliated practices may have advanced MAs to the level II classification in order to pay them more without requiring the additional skills and training, the Center worked carefully with its HR department to re-classify qualified staff and hire new staff into this model.

Managerial staff are now working on instituting a career path for MAs based on a model championed by the University of Utah Health system, but this continues to be a sensitive political issue.

Sustainability: The promotion or transfer of key leadership staff to new positions within the institution may challenge the sustainability of this model.

“We focused on the employees who were positive about this change. If you get the positive people going, the ones who are willing to move forward with you, the others will come along eventually.”

-Teresa Reynaga, MA Supervisor-

Outcomes

Staff noted that the clinic is now much quieter. Providing nearly all patient care in the exam room, and moving printers into each room, has enhanced patient privacy and decreased traffic and noise in the rest of the clinic.

Wait Times: One of the initial drivers to the redesign process was the long wait time for patients. The average cycle time in January of 2008 was 2.62 hours. Subsequent to implementing the redesign, the cycle time is down to an average of 57 minutes. The total individual appointment time averages 30 minutes, including both new and follow-up patient visits. This metric fluctuates as new residents are brought on in the summer months.

Authorization Denials: Denials of authorizations decreased from about 8.8% in July 2008 to about 4.6% in July 2009.

Call Volume: The Center found that call volume to their four medical office service coordinators (MOSCs) in their call room have gone down, although the number of patients seen has gone up. MOSCs seem to be fielding fewer calls because patients get better communication and more of their needs met during the visit.

“[Now] I feel more a part of the team. I feel like I give 110%. I feel much more important.”

-Dorinda Olson, MA II-

Teamwork: Patient ratings of “overall teamwork between doctors, nurses and staff” have improved from 54% in July-September 2009 to 66% in July-September 2010. (See Figure 2.)

Cost Savings: The gradual transition to a greater proportion of FTE filled by MAs cross-trained in clinical *and* clerical roles has resulted in cost-savings as FTE can be applied when and where it is needed. The prior model of specialized and separate functions for clerical and clinical support staff resulted in redundancies and delays. As noted earlier, clinical staff can be called upon to cover for clerical tasks, but the same is not true of clerical staff. Hence, while an MA II comes in at about 2% higher pay than an MOSC III, the MA II can theoretically provide more value to the organization due to her cross-training. Hence the clinic is gradually transitioning MOSC FTE^{iv} to MA FTE.

Because the Center is part of an Academic Hospital, they can bill two sets of charges, 1) a professional fee for face-to-face time with a provider, and 2) a technical fee for MA, LVN or RN staff services. This is different from private practice where there is only one bill.

As a result of cross-training on CPT/ICD-9 coding, MAs have reportedly become much more aware of what they can bill for and better at documenting it. Hence, MAs generate revenue and their ability to

accurately document their services assists the Center in covering costs and overhead.

While it is anticipated that this model will result in cost-savings due to decreased overutilization of office visits, call volume, and preventable hospital admission and emergency room use, the Center is still in the process of collecting data to confirm this hypothesis.

Clinical Outcomes: The Center is currently tracking clinical outcomes with MAs use of pre-visit planning and registries and this data will be available in the future. The Center is also tracking outcomes for its pay-for-performance model for depression screening. Until these data are available, the group is using patient experience metrics to assess the impact of these models on patients.

Patient Satisfaction: Patient satisfaction measures have improved over time. For example, 78 percent of patients rated their overall quality of care as “excellent” in July of 2010 compared to about 59 percent in July 2009. Eighty-eight percent (88%) of patients said they could schedule timely appointments in July 2010, up from 29 percent of patients in February 2009.^v Staff report that patients like having “valet service” where everything is brought to them in one room.

MA Career Impacts

The medical home initiative has expanded the role of MAs in the UC Davis Family Practice Clinic and advanced them up the career ladder within the UC system.

Certification: Medical assistants are not required to be certified.

Promotional Opportunities: There is a limited career ladder for MAs within the UC system, which includes an MA I, MA II, and MA II Supervisor classification. All of the MAs at the Center have been promoted to or hired at the MA II level except for the MA supervisor. Managerial staff are working with human resources to determine if additional career steps are possible.

Promotion to MA II entails a pay increase of 5%. Promotion to the MA II supervisor level entails a move to a salaried rather than hourly pay scale.

Figure 2. Patient Ratings of Clinic Teamwork, “Excellent” Ratings, Compared to ratings and rankings of a nationwide group of comparable clinics

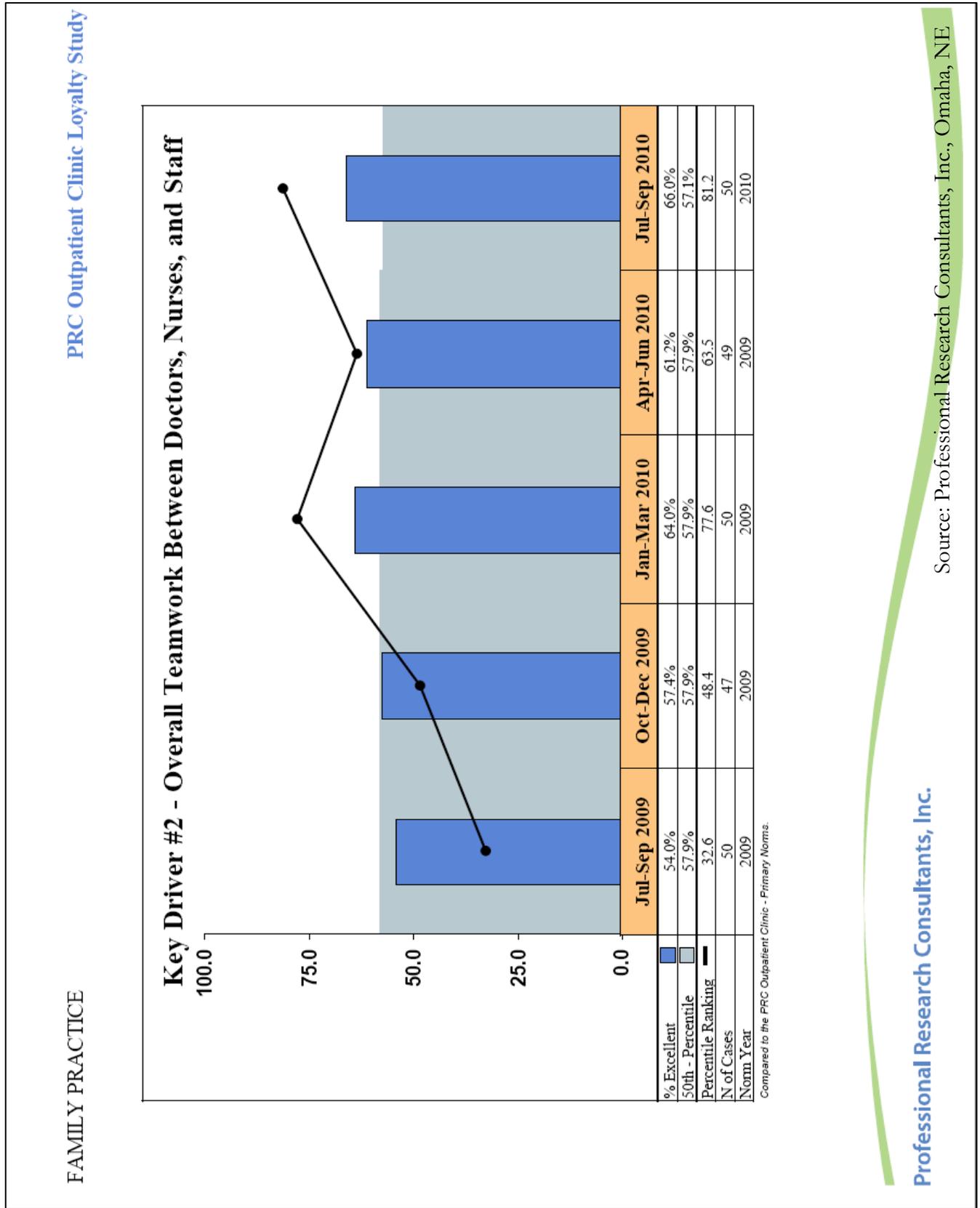
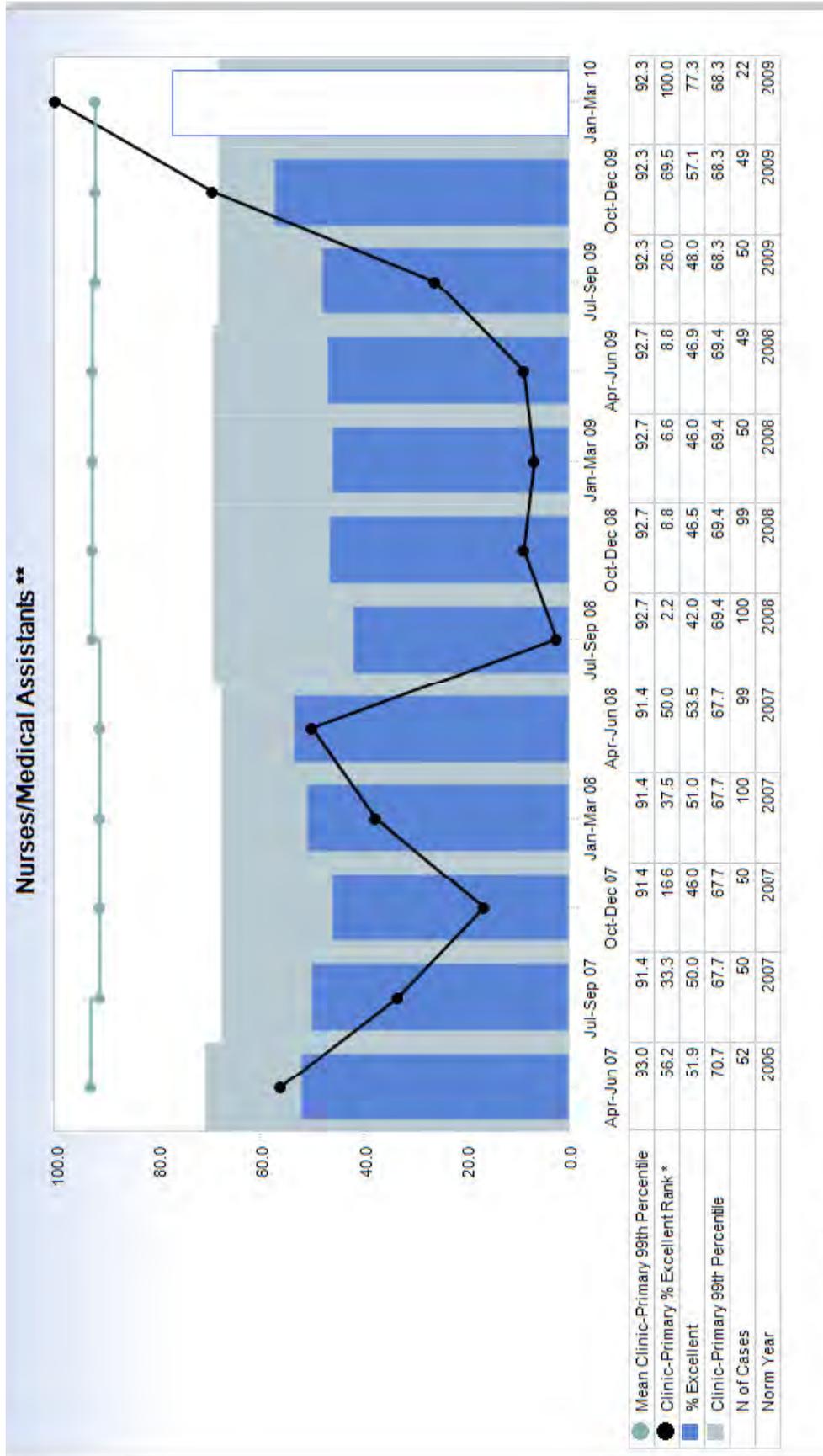


Figure 3. Patient Ratings of MAs and LVNs, “Excellent” Ratings, Compared to ratings and rankings of a nationwide group of comparable clinics. Overall, would you rate the nurses and medical assistants (you/your family member) saw during this visit as:



* Rankings are based on PRC Norm data.
 ** The data in this chart has been filtered.

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Clinic Primary % Excellent Rank

How the FPC compares to other Healthcare Organizations in PRC's database
 % Excellent

The percentage of FPC patients surveyed that answered that question as “excellent”

Clinic Primary % Excellent 99th Percentile

The percent excellent FPC would need to achieve in order to reach the 99th percentile
 N of Cases

The number of patients who responded to the question

Benefits: MAs working within the UC Davis Health System are eligible for the generous benefits available to University of California employees, including health insurance and a defined benefit (pension) plan.

Retention: Over the past year 2 years, the overall institution has experienced no turnover in the MA II class, and little turnover in the MA I class (less than 3%).

Satisfaction & Aspirations: Some MAs reported greater satisfaction with their role and enhanced communication with providers. MAs and managers also reported better teamwork and less competition around the office.

While managers were supportive of those MAs who were pursuing further education to become nurses or physician assistants, one noted that relatively few were in training for other careers, possibly because they were more satisfied with their role at the Family Practice Center.

Recruitment: The Center has worked with local medical assisting schools to host student externships.^{vi} The Center has preferred to test potential applicants in this way and offer jobs to those who perform well in the clinic setting. Five of the 13 current MAs did their externships with the Center prior to hire. Supervisors report that these staff come in better versed in this model and are more loyal to the organization as a result.

Future Plans

Managerial staff estimate that they have been able to implement 85% of the ideal to date, and are optimistic that they will be able to implement more change over time.

Managerial staff would prefer to replace even more of the clerical staff with cross-trained MAs and possibly have MAs collect co-payments in the exam room. They would also like to have MAs conduct more pre-visit planning, chronic disease management, panel management and management of the providers' in-baskets. The Center is not yet using the EPIC electronic health record software to its full capacity and managers would like to expand in this direction to facilitate these additional activities.

Several other UC Davis sites are starting to implement this model. These include the J-Street Multi-Specialty practice and two of the UC Davis Cancer Centers. The UC Davis Transplant Center is also considering this model.

Replication and Lessons Learned

This model could be replicated elsewhere, but staff cite certain factors that make replication more likely to be successful.

- Visit other sites, *learn from others and stay current* with what is happening in the field of practice design.
- *Timing is important.* You need to take enough time to do it well and make the change “stick”. However, if you wait too long, staff get stuck in their roles and say “that’s not my job” when asked to change. Staff have to be taught that their role is continually evolving.
- *Huddles are vital* to ensuring communication and teamwork in a rotating pool of providers, many of whom are in training.
- *Engage staff in the planning and implementation.* Managers involved staff in piloting this model and asked staff how they saw the process rolling out. Staff ideas were incorporated into the redesign.

Elicit the support of leadership. This initiative had the support of the Chair of the Department, the Residency Coordinator and the Medical Director of the clinic. This went a long way in ensuring provider buy-in.

- A *no layoff policy*, while time-consuming, helped to assure goodwill towards the redesign, both within the organization and the institution.

The UC Davis Family Practice Center reacted to falling patient satisfaction scores and long wait times by systematically examining its workflow and investigating the efforts of other organizations to make strategic change. Building on what it learned, managers worked to re-form the clinic to become more efficient by implementing an electronic health records system and by increasing the number of medical assistants on-staff.

Cross-training MAs in both administrative and clinical tasks has provided efficient, one-stop service to patients while building MA skills and confidence. The additional bonus for this residency-based practice is enhanced retention of skilled MAs who can serve as guides to a rotating pool of part-time resident and faculty providers, helping a new generation of providers prepare for a changing health care environment.

“In the hierarchy of health care, the MA role is traditionally more subservient...here MAs are more coaches to the providers; they are more like equals. They are a key component of driving our workflow process and making that patient satisfied.”

-Angela Gandolfo, Practice Manager-

- v. “UC Davis Health System receives Spirit of Excellence Award from Modern Healthcare”. UC Davis Health System website. <http://www.ucdmc.ucdavis.edu/newsroom/newsdetail?key=4882&svr=http://www.ucdmc.ucdavis.edu&table=published> Accessed April 11, 2011.
- vi. The Regional Occupational Program or ROP, Carrington College and Heald College.

Notes

- i. Joint Principals of the Patient-Centered Medical Home, Patient Centered Primary Care Collaborative website, <http://www.pcpcc.net/joint-principles> Accessed January 11, 2011
- ii. SmartPhrases are a part of the EHR software that allow clinicians and providers to enter commonly used phrases into their notes on patients, or into letters to patients, using a few symbols or letters that will pull up a standardized phrase. Some of these “SmartPhrases” come pre-loaded with the software, but users can customize and create their own SmartPhrases for their practice. Users also utilize “SmartLinks” to draw in information on the specific patient from the patient’s medical record.
- iii. SOAP notes are a means of documenting subjective observations of patients and objective measures of their vital signs, previous treatments and ongoing treatment plans. Practices traditionally used paper SOAP notes; but these notes have been incorporated into the Electronic Health Record and are now often entered into an electronic format.
- iv. MOSCs, or Medical Office Service Coordinators, typically handle appointment scheduling, registration, cashiering, handling multi-line phones/call distribution, discharge, referrals, data entry, insurance verification and filing. At the Family Practice Center, MAs are being cross-trained to take on more of these tasks.

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