

INNOVATION AND IMPROVEMENT

Improvement Happens: An Interview with David Judge, MD

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The Massachusetts General Hospital (MGH), the Massachusetts General Physicians Organization (MGPO) and the Stoeckle Center for Primary Care Innovation at MGH in Boston are focused on the revitalization and redesign of primary care through research, teaching and innovative practice models. Multiple activities are underway across primary care at MGH and the MGPO to support the development of more ideal care models that will improve the quality of care and experience of care for both patients and clinicians. In the summer of 2010, MGH opened a new clinical practice that represents its most ambitious project yet, the Ambulatory Practice of the Future (APF)

Inspired by the need to improve the patient experience of primary care as well as the work experience of physicians and their colleagues, the APF was designed through a multi-disciplinary collaboration of patients, architectural designers, information technology specialists, primary care physicians, nurses and subspecialists. Initially this innovative practice model will serve MGH-insured employees and their families to facilitate the project's financing and the measurement-over-time of potential cost savings. A robust care management team working alongside a primary care physician in an architecturally innovative space will form the core of the practice. It will uphold many of the tenets of the patient centered medical home: focusing on prevention, patient engagement and chronic care management, and serving as a test laboratory for new models of primary care. In the future, the practice hopes to expand its scope by providing in-house care for minor trauma, acute illness not requiring the emergency room, and minor procedures.

David Judge, MD was the leader of the planning of APF and is currently one of two physicians working in this newly opened practice. In this installment of *Improvement Happens* (a periodic feature of JGIM sponsored by the California Healthcare Foundation), JGIM spoke with Dr. Judge about the inspiration, origins, and aspirations of the practice as a model for innovation in primary care.

—Jonathan Berz, MD, JGIM Editorial Intern



Figure 1. Dr. David Judge.

JGIM: What's wrong with the office practice of medicine today?

David Judge: After I finished training in general internal medicine, I built a very busy practice. While I enjoyed caring for my patients, I felt like I was drowning. I recognized that what we were trying to stuff into brief office visits just couldn't be done. Not only that, we were putting every patient through the same 15- to 20-minute office visit, despite differences in their needs. I was discouraged and I was frustrated. I was concerned that I was not truly meeting my patients' needs and did not have effective ways to know what was happening with patients when they weren't in the office.

JGIM: Your solution is called the Ambulatory Practice of the Future. Isn't that a little grandiose?

DJ: Perhaps. The spirit of the name really comes from the goal of leaping out of our own box. We certainly do not intend to suggest that ours is the only path forward.

JGIM: Where did the idea come from?

DJ: Actually the idea for the name—if not the idea itself—came from surgery. About five years ago, the Center for Integration of Medicine and Innovative Technology (CIMIT) at Massachusetts General Hospital was involved in a program called the Operating Room of the Future, where they took some existing operating room space and tried to redesign the whole process. I have a background in biomedical engineering and

was very interested in the approach that the surgery team and CIMIT had taken to designing a new OR environment. So as a busy full time practitioner of general internal medicine, it wasn't long until I asked, "Hey, what about an "Ambulatory Practice of the Future?" That idea was discussed amongst the leadership of the MGH, MGPO and the Stoeckle Center, who invited me to form and lead a committee to explore what might be possible. So the Ambulatory Practice of the Future began as a group of people talking about the stresses on primary care and what we might do differently.

Without realizing it at the time, we were lucky to be influenced by CIMIT. What they were teaching was that if you want to design something new, you need to bring the consumer and the people who do the work together. So very early, we included patients, health care professionals, and clinic staff in our design discussions. We also brought in people who aren't the usual suspects in health care: industrial designers, architects, engineers, and technology experts, folks who've had experience creating new things.

JGIM: As you were having these discussions, the concept of the Patient Centered Medical Home started to gain currency. How does the Ambulatory Practice of the Future relate to the Medical Home?

DJ: In 2005 there were national conversations about redesigning primary care, though the term "medical home" was not much used. But yes, we were thinking about how to create a medical home. We came to agreement around some basic principles. First, we wanted to be as radical as we could. Second, we wanted to engage patients in their own care as much as possible. Third, we wanted to create a new clinical culture.

JGIM: That's nothing if not ambitious. What would such a cultural transformation entail?

DJ: We knew that in order to help providers do what needed to be done, we would have to beef up the care team, and so we wanted to think about what an ideal care team would look like. However, one of the things we did early on was to say, we know that the way we get paid to take care of patients is a big constraint here, but let's forget about that while we do the initial design work. Let's think about what would be a better way to care for patients, and then we'll come back to the reality of how to get paid for it.

JGIM: But how could you possibly ignore the bottom line, even temporarily?

DJ: Temporarily ignoring the constraints of the current payment system enabled us to be creative. We are not truly ignoring the bottom line, as the APF will initially serve employees and dependents of MGH and MGPO. In that self-insured setting we can have some control over supporting a more innovative care model from a payment standpoint. We believe that this investment will impact the bottom line by lowering the overall cost of care for this population. However, the bottom line is more than just about cost—it is also about building a sustainable model of primary care for patients and for care teams. This absolutely requires some up-front investment. MGH has tasked us with transforming primary care, based on an understanding that the current way of doing business—providing care that is uncoordinated, disjointed, and unsatisfying for both patients and providers—is just not sustainable for its patients or for doctors.

JGIM: What will this new, more robust care team look like?

DJ: The care team responsible for each panel of patients will be

a physician, a nurse practitioner, a registered nurse, a medical assistant, and a care coordinator. That's a lot of people, and at least at the beginning, each panel will comprise no more than 2,200 patients. The question is, if you put that many people in a care team, what is the range of care and services you can provide, and how does each member of the team contribute? The *nurse practitioners* will concentrate on oversight of chronic disease, so we want to give them the information and tools they need to know who are our patients and what chronic illnesses they have. Our electronic records will have some patient registry tools reporting on lots of different outcomes including functional status and mental health.

The *registered nurses* will do a fair amount of triage but will also be heavily involved in health education, and we'll try to give them the time they need to sit with patients and make sure they understand the information we give them. Nurses will also play some role in following up on the care plan and keeping track of how patients are doing.

Care coordinators will act as case managers, paying close attention to the sickest patients, helping to get the resources they need from day to day, to keep those folks out of the emergency department and out of the hospital. Because our population will initially consist primarily of working-age adults, the care coordinator will also become expert in the science and art of health coaching, which is largely about motivational interviewing and changing health behaviors. The care coordinator will initially be a generalist, but when we're fully staffed the three care coordinators will likely focus on different clinical areas.

Medical assistants will serve as patient care ambassadors, helping patients navigate the office, partnering with other care team members in the exam room, and helping with documentation during exams and procedures. In addition, there will be two medical secretaries. One will function as a greeter at the front of the practice, and the other will sit with the care team.

JGIM: So far, the physician is conspicuously absent.

DJ: As a physician, I want to make sure I am on the scene when my background and training are needed most, specifically when there is something complex or acute going on. In my current practice, a member of the nursing staff might be evaluating a frail elderly man with atrial fibrillation and recent syncope, while I'm seeing a twenty-year-old for a routine physical exam. That makes no sense. So we want an operation that allows discretion. As the day progresses, we want the flexibility of saying, hey, the nurse or NP should see this patient and the doctor should see that patient, or maybe we ought to see the patient together. How that will evolve is part of the experiment.

JGIM: That's a big team. What will the experience be like for patients?

DJ: We're trying to create an excellent experience for patients. We're moving from a focus on sickness to a focus on health and wellness, from event-based office care towards a team-based experience that provides much more continuous care. The idea is to bring service to the patient whether at home or work, and not expect the patient to always seek out care from us. We are committed to transparency—if we're going to engage patients, we're going to have to share information with them, show them what we see in their records and allow them to contribute. And we are trying to create a care model that continues to evolve, so this is really about evaluating ourselves and being willing to abandon things that aren't working.

So when patients sign up for the APF, the first thing they'll do is create a "health and life balance plan". This puts them on notice that "things are different here—we want to really engage you and set some goals." We're actually having a longer initial visit and some time for orientation meetings with patients that are joining so they can come and hear a little bit more about us ahead of time.

JGIM: Research suggests that not all patients want to be engaged in their care. Aren't you setting up an elite club for the uniquely compliant?

DJ: We think the APF is for everybody. By explicitly saying, "Hey patient, we really want to work with you to set some goals, and that means we want to increase your involvement and responsibility," I think we naturally will attract patients who are the early adopters. But not just the early adopters. There will be some patients who aren't too sure about it, but are willing to engage. Then there will be others who are more skeptical. I think we can engage everybody if we can do a better job of understanding each patient's personal goals. Setting care goals should be deeply customized, which means really knowing something about the patient's values. It's not something we take the time to understand in our typical review of systems.

JGIM: One of the more interesting aspects of your project is the melding of patient-centered communication with a supportive physical infrastructure designed from the ground up.

DJ: The space is intended to support that dual mission of

engaging the patient and supporting the care team. When patients enter the practice, they stop at a kiosk, and with a few touches of a button they're checked in. In what would normally be the waiting room is a lounge where patients can sit down at a computer, examine their medical records through a portal, and obtain evidence-based health information. The greeter who meets them will be available to help them use these tools. The central clinical area is very open, so the team can literally be together throughout the day. And this central area is surrounded by exam rooms, so there is a good line of sight if you need to help another team. Adjacent to that central space is a conference room, where we can have group visits with patients; teach residents, students, and each other; or hold private meetings.

Basically, we're trying to address the sense of isolation experienced by many of us when we leave training. We're with patients all day, and we're not really able to be together in terms of sharing ideas or cases and learning from each other. So, we changed that model.

JGIM: The space looks comfortable and ultra-modern but about as private as an airport lounge. How do you deal with patient confidentiality?

DJ: There will be conversations going on in the central clinical area ("bullpen"), and we've used sound masking technology to deal with that. However, if we need to put Plexiglass between us and the patients, we'll do so, reluctantly.



Figure 2. a Ambulatory practice of the future waiting area. b Ambulatory practice of the future examining room. c Ambulatory practice of the future central clinical area (artist's conception).

We hope we don't have to, because it doesn't send the right message.

JGIM: That's the physical infrastructure. What about the technological infrastructure? In particular, how will information technology be deployed to improve care?

DJ: Massachusetts General Hospital has its own Laboratory of Computer Science that oversees the development and maintenance of "On Call," an in-house electronic health record (EHR). Along with the Lab, we're building some software tools that will be integrated into the record, allowing physicians and other team members to input the care plan, set up a timeline for follow-up, and even generate a work queue that allows us to really stay on top of our most active patients, but over time to touch base with a lot of patients. Perhaps more important than any single IT innovation, we have permission from the very top of the food chain to go in and modify the EHR to serve our purposes.

JGIM: In a prior interview in this series (*JGIM*, May 2010), Dr. Christine Sinsky explained how, in her practice, a close, one-on-one relationship between doctor and nurse creates the foundation for coordinated care. Similarly, the "teamlet" concept at San Francisco General Hospital (*JGIM*, published online 23 September 2010) relies on close pairing between a physician and care coordinator. In your model, if the physician and NP are seeing patients all day and the care coordinator is on the phone with patients and specialists, how can you ensure that you'll get integrated multidisciplinary care rather than parallel play?

DJ: This is a challenge. We leave time for a morning huddle that enables us to have a game plan for the day. We work in close physical proximity so that we can more easily have quick conversations and pull each other into the exam room as needed for discussions with the patient or 'warm' handoffs as different team members are tackling different aspects of the visit. We leave buffers in the day to enable the physicians to oversee visits being conducted by the NP or RN as needed, or to see urgent visits that may be of higher complexity. We are working to understand how best to use the different skills on the team. We are also working to redesign the electronic medical record so that we can maintain clarity on who is doing what to meet the patient's needs.

JGIM: How will life be different for physicians working in the APF?

DJ: Well, for one thing, they will be *much* better supported than in the typical primary care practice today. And, at least at the beginning, they will be much less stressed. For now they'll be paid a straight salary. We have committed to care for no more than 2,000 to 2,200 patients per team. We were certainly asked, "Hey, with all of these team members, couldn't you take care of more patients?" But at this time we're uncertain what the ideal patient panel size will be.

I also want general internists to explore expanding the range of care they deliver. I think many of us feel that we have given up a fair amount of care to specialists, and we'd like to take some of it back. Much of this is cognitive, and we'll be exploring how internists in a group could increase their specialty knowledge in certain areas. There are also some procedures, both urgent and elective, that could be done by internists. We've taken one of the exam rooms and converted it to a large treatment and procedure room.

JGIM: Many office-based internists indeed worry about becoming glorified triage agents. But reversing this trend will

require a plan for ongoing training along with a way to maintain good relations with specialists. How do you do that?

DJ: The training piece will start slow. This is maybe an issue of dusting off some old skills, things like suturing a wound or doing a skin biopsy or injecting or aspirating joints. Things that some of us were trained to do and maybe even did, but eventually abandoned.

I'm also looking to hire nurses who are comfortable putting in intravenous lines and handling some emergent procedures. Eventually, we may get a little more radical. We are going to question assumptions. Do certain procedures currently performed by specialists in high acuity settings really need to be done that way? We're going to be cautious at the start, but we'll be looking at training and technologies that might allow us to do more in a primary care setting.

And then, in terms of working with specialists, we have an opportunity to structure interactions that make more sense for the patient and for the care team, but that otherwise wouldn't be supported. Things like a web conference or even a phone call with a specialist at the moment of need, instead of sending the patient out for a formal consult. This might be feasible when the question is relatively simple. There are no concrete plans for anything like this at the beginning, but together with a few willing specialists, this is something we're going to explore.

JGIM: Like any of us, specialists will probably want to be paid for their time. Understanding that deliberations are early, what is your thinking on payment? Under the self-insured umbrella of MGH, would specialists work with you on a fee-for-service basis, episode-based payment, capitation, or something else?

DJ: We are hearing very clearly in Massachusetts that we are likely to move toward global payments possibly shared across different specialties in an 'accountable care organization.' How we might actually engage and support specialists as part of the care team in different ways remains to be determined, but I hope that we'll be able to leverage APF as a platform to develop payment schemes for bundles of services that include specialty care.

JGIM: Let's talk more broadly about costs. You've been given the privilege of basically ignoring costs for a period of time while you run the experiment.

DJ: That's true to a point. Mass General made a capital investment of a few million dollars to help us build out a new space. In addition, the Mass General Physicians Organization (MGPO) figures that in the first year, our practice will cost an additional \$150-\$200 thousand per physician compared with other practices on campus. When the model is fully ramped up, we will have three teams caring for a total of 6,000 to 6,500 patients. We estimate that the manageable costs—hospitalizations, emergency room visits, certain procedures—for this population will run \$70 to \$80 million. If we can save 3% off those manageable costs, it would more than cover the additional investment, and it would begin to save the hospital money. My expectation is that we will at least be cost neutral, but I believe that we will save the hospital a fair amount of money over time.

JGIM: Your views on the financial viability of the project seem quite optimistic. As Churchill might have put it, never have so many providers cared for so few patients in so grand a clinical space. Really, how did you get the CFO of MGH to sign off on this project?

DJ: Well, Churchill also said, "A pessimist sees the difficulty in every opportunity; an optimist sees the opportunity in every

difficulty.” The executive leadership of the MGH and MGPO signed off on this vision because the financial modeling suggests that the projected savings will cover the extra costs. Savings will be realized through aggressive management of chronic illness, through proactive follow up to engage and coach patients in reaching health and wellness goals, as well as through the provision of an expanded range of primary care services (increasingly leveraging the physician and nurse practitioner to manage a wide range of care needs), all of which will reduce the need for and expense of unnecessary urgent, emergent, and elective specialty care services. An additional area of potentially significant savings for the MGH and MGPO is the reduction of employee absenteeism through wellness management.

JGIM: This model sounds terrific—if you happen to be lucky enough to work at Mass General or rich enough to afford what would likely be premium prices in other settings. With many primary care clinics on the verge of financial collapse, isn't it naïve to think that your model could do anything meaningful to address the primary care crisis in the United States?

DJ: We did not think we could do anything meaningful by making changes around the edges of a care model that is struggling to meet the needs of patients, burning out physicians and nurses, and failing to attract the students and residents that are the future of primary care. That model, which is driven by productivity and inequitable fee-for-service payment, is broken. We want to show that increased resources, different workflows, and new payment schemes in primary care will improve the overall quality of care at a lower cost, while simultaneously creating an enticing work environment for team members. Our physical space, as open and attractive as it is, will not ultimately drive the project's success. If we succeed, it will be through deployment of each team member's skills at the highest possible level and effective engagement of our patients in working towards their health goals. If the model works, we hope we can leverage our success into real change at the policy level—that means payment reform.

We have also created this practice with the idea that it is a learning laboratory: part of our mission is to share our methods (successful or not) with others.

JGIM: Massachusetts General Hospital is said to have a pretty decent residency program in internal medicine. Do you

have any plans for bringing residents into your practice?

DJ: We are currently in the process of designing a training and education program that would enable residents to see their own patients at APF. This would begin at some point between year 2 and 3 of the practice. They will take care of patients that truly are theirs, and the attending physicians will precept or oversee that care. It is part of our mission to enable students and residents to experience our team-based care model and to help us to continue to innovate as we move forward. Harvard Medical School is very committed to the recruitment of future primary care physicians and we believe projects such as APF will excite and inspire more students to enter this field.

JGIM: It's now the middle of September [2010]. The Ambulatory Practice of the Future has been open for several months. How is it going?

DJ: I can say that we're off to a good start. The docs and staff are enjoying the new space and the chance to finally test out our care model as well as to get oriented to the new technologies that we're piloting. The patients are giving us helpful feedback (at visits and via a Patient Advisory Council that we've formed) regarding the space and the experience of visiting the care team. We're working with patients to create the customized health goals that form the 'health and life balance plan' and we'll be increasingly testing out our coaching skills to guide them as they strive to reach these goals. We have much to learn in this first year but I could not be more excited about this opportunity, and I know that we'll have a good story to tell about the impact of this care model when JGIM invites us back in the future!

JGIM: An interview with *Improvement Happens* is a one-off deal, but if you ever do a study evaluating costs and outcomes, please talk to us.

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