



Cliff Dodd, SVP and CIO, on Transforming Healthcare at Kaiser Permanente

Since becoming CIO of Kaiser Permanente in 2002, Cliff Dodd has helped launch a revolution in how the nation's largest HMO delivers healthcare. Cliff persuaded Kaiser to embark on a \$4 billion-plus investment in digitizing the entire delivery process, including all medical records. A passionate advocate for bringing best practices to healthcare, we found Cliff to be candid and insightful about what it takes to get such an organization—with its 11,000+ doctors—to make fundamental, transformational changes.

On the vision ...

"What attracted me to Kaiser is that I saw an opportunity to digitize healthcare and the whole care delivery process, to essentially increase the effectiveness of care and efficiency of care. And once that platform is digitized, to move the delivery of care closer to the home, closer to individuals via the internet—with people interfacing with secure messaging to doctors, being able to access their own electronic medical records.

Our whole investment in what we call Health Connect is a multi-billion dollar investment in digitizing the healthcare delivery process. That's the platform. The electronic medical record, with an electronic data warehouse above it, and of course complete connectivity right to the individual member level. Complete with screen prompts and pop-ups where if a member logs on to the Kaiser site, we know everything about his health. We know he has slightly elevated cholesterol. We know he's on some sort of statin. What does *he* need to know? Screen pop it. Here are articles of interest. Here are breakthroughs. There are informational streams that need to be pushed out to folks and are not today.

Then there's the whole ability to share best practices with doctors, which is not done very well today. Healthcare accidents kill 350 people a day in the U.S. It's the equivalent of a 747 crashing every day. If that happened in the commercial aviation world, those 747s would be grounded in a nanosecond. The cause would be made known at every maintenance base in the world, the maintenance process rectified, best practices insured. You'd like to think that

About CIO Leadership Notes

Welcome to CIO Leadership Notes, a series of interviews with leading CIOs focused on strategic management issues, published by the Tuck School's Center for Digital Strategies and San Francisco-based Enterprise Insight. Our goal is to provide provocative and relevant thought-leadership content to the community of large-enterprise CIOs.

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happens in healthcare right? Well, it doesn't, not even close. It is 12-15 years, we estimate, before a best practice is actually spread across a reasonable population of doctors."

On getting started ...

"It didn't take a lot of convincing. The new CEO was already on the same page. He is completely technology biased—which is wonderful to work with. He believed that the technology would lead the cultural change and transformation that has to happen in this organization—not just in IT, but in the care delivery organization. Until you've got the medical records digitized you can't move them, you can't transfer best practices. So that is the path that we are on.

With that kind of agenda you have to put together a technology organization that can develop and implement. IT was centralized here previously, but it had really not turned into a capable organization. No investment spending oversight, no skills assessment ... IT was running in a very servile mode. Tell me what you want and I'll build it. There was no strategic involvement in the direction of the business. There was no ownership of that strategy. There was no vision that 'this is where we need to go.'

We defined the results we wanted to get: how we wanted to digitize the entire environment, the number of years of investment that would be required. We gathered the leadership together with some pretty blunt conversations about the results we were getting and where we were in terms of our skills. We needed to get the right people in the organization to get on the bus, which meant we needed to change a lot of faces around here."

On his transformation model ...

"We used a model I've used before called 'six systems,' which basically says you need accountability, the right people, performance metrics, communication, and the right delivery systems and processes (see diagram). Leadership is at the center—I co-developed this model with an organizational development person I've worked with for over 20 years.

It's culture supported by a dashboard—I believe very strongly that organizations are best influenced by delivering consequences in the form of incentives, good and bad. Getting the right people on the bus and then providing the appropriate incentives, which I do with a one-page plan that gives you your objectives for the year. How the objectives support the strategy, how your annual bonus is going to be calculated relative to that ... basic MBO stuff, but it works and it's effective. Building what I would call a performance-based culture driven by the dashboard. I have the ability to click on wherever I want within a web-based tool and I can graphically look it, seeing exactly how we're performing and what our defects are, what our mean time to restore is if we have a system that goes down, what the trend is. What our costs for a development hour is. What our success rate is in delivering projects. All of that is tracked."

On getting the organization to change direction ...

"The organization needed to transform. We had to not only get the vision in place throughout the receiving organization, but the IT organization had to transform its capabilities to be able to deliver.

When I arrived, we had an initiative underway to do a sliver of an electronic medical record, as opposed to all the pieces that were necessary. We were clearly on a path to spend more than it would cost to buy a package that would deliver the whole thing—we were literally going to build it ourselves! Based on some faulty information years ago, the external packages were dismissed as not being scaleable. That was the wrong people making the wrong decisions. We had to write off \$400M.

We had a whole executive committee that was quite committed to the previous solution—because they had been told incorrect things about what it really contained. The board was also told what it was going to be, as were all the medical directors. So each had to be unwound and reset. The mythology creating the whole thing had to be unwound before we could successfully stop it and, of course, write-off [the investment] and redirect all the people.

The Six Systems Approach



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We then came back with a solution that was a suite of systems, a package called Epic. There are several out there, but we chose Epic, a much more constructive and thorough solution. I am happy to say that with only one year and a half under our belt, we are completely on track. We have already implemented probably 40% of the organization now, whereas on the previous path we wouldn't have implemented anything yet."

On IT's new marching orders ...

"What's unique about IT when it comes to change management? I don't think much. It's a large organization ... in our case it's 5,000 people. The organization was hungry for leadership, for direction. So we established a set of principles that there were no IT projects, principle number one. They were all business projects. Either you had a business sponsor and a complete business partnership to deliver it, or you didn't have a project. We are not going to work with you any other way. You're either on the team with us and donating the appropriate subject matter expertise to the team—who, by the way, are jointly accountable for the success of this project—or we didn't have a project. That was an eye opener to a lot of people.

We also launched the 80/20 rule where we are not looking for perfect solutions. We are not here to do requirements *ad nauseum*. We are here to get 80% solutions in place in a relative quick cycle time and look at enhancements later—but we'll get the base platform in quickly. 80% works all the time. Packages, suites, not best of breed solutions. Pre-integrated suites of systems. We want to buy it—we don't want to build it. The worst we want to get involved in is integration.

Those were new words to this organization. They were receptive because they had been struggling with an IT organization who, when asked 'would you get me a billing system,' would go build it. They didn't worry about whether it

was going to integrate with anything else they had, because they already had eight groups with eight unique suites of systems in them, all doing exactly the same thing. Finance systems, HR systems. Why the heck would you have a different HR system in every organization? They even had a different payroll. Paying people is paying people, right? Well this organization almost took pride in doing it eight different ways. I have 1,700 applications running out there right now. We've been able to shut a couple hundred of them off, but it should be run with about 25. That is how far off we are."

On systems-driven vs. process-driven change ...

"The system and its architecture can in fact drive process change. As opposed to process-enabled reengineering. Personally, I subscribe to process-enabled—it's far less expensive and more timely—but we're doing the reverse here. It was really our CEO's decision—that systems-driven was the only way this organization would find its way through the cultural changes necessary to address the process problems. If you don't get them to agree to a plain vanilla implementation of the system and then walk them through 'here are the process changes necessary to get there,' the organization will throw up its anti-bodies and its blocking maneuvers—if you try to go in there first with redesigning all their processes. The lure of having a system that can do a lot of these things for them—but you are all going to do it the same way—which they will logically agree with, is the only way to get them unfrozen.

They have the right to devise the system content that is going to be scripted based on what they've learned. But once it's done, all the doctors are going to be following that content and following that scripting. So they just plain can't forget to check for bad drug interaction issues once they prescribe something, because it is going to cue them up. It is going to pop up on the screen. They are going to have to check the box. 'Yes, I asked if they were allergic to penicillin and the answer is 'no.'

We need to continue to make the system inviting to use. Transformational change in healthcare versus other industries is a whole different ball game. When I was at American Express, Harvey Golub said, "We're going to cut two billion dollars out of this expense base. Let's go figure out how." It was not if, it was how. When I was at Ameritech, Dick Notebaert said, "We're going to go to market and compete with all the other guys for the first time in our lives. We're not in a regulated environment anymore. Let's go figure out how to do it." It was total transformational logic. Put an institute in to retrain everybody, fire anybody that makes moves that don't make any sense, then let's start over. In many cases they threw the baby out with the bathwater, but 80% of the time they were right.



But in healthcare—you've got a care delivery industry that is just plain backward. Who else would let 350 people die accidentally every day and not want to talk about it? Where else would best practices take 12-15 years to penetrate even a reasonable level of the rest of the organization? Certainly, not manufacturing, not the aircraft industry, not telecom, not financial services. I mean where I come from, this industry needs a real nut cracker."

On being a transformational CIO ...

"That's a personal choice. I don't see the need for transformational change necessarily as being unique to IT. The entire company needs it. I went at this entire thing as 'we are partners, there are no IT projects, there are business projects.' We will jointly share accountability. Get them to agree to the principles, put the governance in place, and then start walking them forward. All based on partnership with the expressed intent of having more impact than just transforming IT. It was always very clear in my agenda. Six months after I started, I was asked to run a larger portion of the operations, the clerical operations. I'm using all the same tools and bringing in the same kind of people. People who are skilled in cultural transformation of organizations, who understand process mapping, CQI, fundamental change strategies. And what was the first thing they did? Brought in a new flight of people to replace a significant portion of the management ranks who reported to them, because those skills just didn't exist. It's tough medicine.

We influenced a change agenda for the entire organization. The whole notion that IT is not a servile organization and needs to be able to effectively partner and share accountability with you to be able to deliver anything meaningful was a very new concept around here. Thankfully the organization stepped up ... 'I guess I do need to play with you if we are ever going to get anything delivered.' I can't just say I want a billing system and throw the hand grenade over the wall and run, and then wait for IT to deliver. It doesn't happen that way."

On relationship building ...

"I learned the hard way. At American Express for example, I didn't do well at building relationships. I was still just building the base leadership capability. By the time I got to Ameritech, I understood both, and I built reasonably good relationships. Especially upward in the organization and laterally with colleagues. Below, outside my organization—not as good. Moving on to Kaiser, I melded them and said 'there's huge relationship building that has to happen here, with the doctors especially, to be effective.' So I spent a lot of time doing that, and then bringing the technology agenda here as well. The transformation agenda. The technology principles and the transformation agenda."

**On unanticipated benefits ...**

"I didn't really understand how much positive benefit doing this right could provide for the healthcare system in this country. I saw this as a wonderful vertically integrated play in healthcare—a model that should really be used throughout the rest of the country. Our own hospitals, our own doctors, our own clinics, our own pharmacies, all exclusive to Kaiser. Connecting that all together electronically and digitizing it is clearly the play, but I had no idea how much influence that would provide for the rest of the country, politically and just operationally. It has created a drive throughout the country to put electronic medical records in place. Legislation is coming out now through the federal government to put national provider IDs in place and even talk of funding EMRs throughout the country. I didn't realize what an impact Kaiser and its investments in technology and in leveraging its vertically integrated model would have, how much good it could do. It really creates an altruistic attraction here."

I would foresee Kaiser being a leader in using data and technology in the healthcare industry 10 years from now if not sooner—we're going to take it to the next level. The investments we're making in technology, the encyclopedia of evidence-based best practices tied directly to good results in healthcare will be immense here. And it is all digitally recorded, so we can get at that information. You can't do it any place else. Nobody else is vertically integrated except the VA. Nobody has made the investments in the systems to the extent that we're doing. Everything from radiology all the way up through cardiology, inpatient, outpatient; we're putting a data warehouse structure over the top, and we're putting the connectedness through web interfaces to our members. I mean we are really connecting the entire thing. Health Connect is a four-billion dollar investment. But that's only a piece of it."

On institutionalizing change ...

"Some models are effective. The six systems model, I've used repeatedly. The six systems diagram and a little brochure are in peoples' cubicles. Only within IT. We call it "the road to change." Every year we bring the top 200 leaders together in our IT organization. We talk about where are we on that road to change: what road signs have we passed, what milestones have we passed, what's next and how it all fits in our map. We talk very openly about getting the right people on the bus, the 80/20 rule, no IT projects, only business projects. We talk very zealously about six systems and how we are going to tie one page plans back and how we want to cascade that information through the organization. It created a lot of fear in the organization initially. I had people working real hard to try to get me out of here. But by now the governance processes, the systems principles, the 80/20 rule, the 'no IT projects,' are institutionalized here."

On IT accountability ...

"We created a lot of demand. We have 440 active projects now. We're making a lot of change. We're looking at how we integrate the talent we have right now into being fully accountable members of the care delivery process as opposed to just IT. Integrating IT with the business. We're taking the 'no IT projects' piece one step further. I'm getting some of our most senior doctors up to help me with this message, because they feel like they are part of this."

Several regional medical directors were very negative toward the technology organization when we started our change efforts. Most are now advocates. One of them will speak at my next conference and his message will be 'you in IT, how many of you are caregivers'? His expectation would be that all 200 or 300 people raise their hands. Many will not. Then

he'll tell them how what they're delivering now integrates IT in the care delivery process, because he simply can't have a patient come into the emergency room and have that high resolution screen (all the radiology images are now digitized) of the MRI that was run 30 seconds ago for an accident victim go down. It has to stay up. So systems availability, the quality of the software they deliver and the day-to-day operational management of the delivery of all that now makes you an integral part of entire care and delivery process. Because if you fail, somebody dies. All of our pharmacological updates and all of our pharmacy prescriptions are now totally automated through the web now. There are no more handwritten prescriptions. It's all digital. You screw that up you are going to hurt hundreds at a time."

On getting input from the docs—and using RFID ...

"We want entrepreneurial ideas from doctors and we're figuring out how to integrate their input into how we use technology going forward. For example: using RFID capabilities to be able to boot up a PC as the doctor walks into the exam room so they don't lose that valuable thirty seconds while the patient is sitting there. They have the patient's information on the PCs right? What is the patient in for? What drugs is he using? The doctor's got a diagnostic tool he wants to use now too. All PC-based. So the first thing we discovered is he's got eight passwords he's got to use to get into all these applications. That's stupid. So we're going to do an RFID thing and the doctors came up with it. They said 'why don't you use RFID because we need to have a better way of booting all this stuff up as we come into the room—we want the screen lighting up. I want the PC hot when I come in.'

I'd rather be ahead of them on that. I'd rather have a couple of doctors—which we're doing now on my staff in my advanced technology organization—working right on the floor, working in care delivery operations, looking for these opportunities to better leverage this technology to make the doctors time more efficient, more effective. Ergonomics of the screen, how we do the keyboard, how we do the mouse ... everything has to be completely examined. We have to reengineer the care delivery process around technology we've got now. I want to be able to lead that process. I don't want to be in a servile mode again. This changes the way care is delivered, and makes IT an integral part of it—that's absolutely the next wave."



On innovation vs. efficiency ...

"I don't think there is much conflict between innovation and efficiency in healthcare right now. In the healthcare industry there's such a dire, extreme need for standardization and sharing of best practices, that I don't see any danger of overrunning the demand in the near future. At some point we will probably over-standardize some things. Overdrive the scripted diagnostic stuff we are trying to put in. The care delivery operations will ratchet it back for us ... they'll come back to us and rebel at so much content, so much scripting for every one of the simple things and they'll try to distill it down in shorter scripts—and they should.

Right now there's so much energy we're putting into standardization. The doctors know we don't have any time and they don't have extra calories to burn on innovating right now. They're focusing their innovation calories right now on things like RFID, better use of imaging technology, more high-res screens in the right places ... maybe they should be on moveable stands in emergency rooms instead of fixed on the walls? Do we want to use wireless carts? The role of PDAs and wireless tablets in care delivery versus the roles they don't make sense in because of battery life issues. We are dealing with all that.

So we're not squelching innovation but we try to get some practicality into it. Example: someone said we shouldn't be wiring all these new hospitals we're building we should just go wireless. It's so much cheaper. Time out, doctors, time out. There is a concept called total cost of ownership and while wireless on the face is probably less expensive, you got to maintain it. You got to keep all the applications that were designed for the wired environments up and running in wireless environments. How many people is it going to take to do that, because you do want the system to run everyday, don't you? When you walk with your PDA past the radiology department you don't want your screen to go blank right? You got microwaves galore in hospitals and nothing is going to penetrate it. So you run into these problems like

software's 15 years behind the capability of the hardware in the networks—which it traditionally is. We have to balance the practicality aspects. The doctors do respond very well to facts and good analysis. You give them the white paper and say here is your total cost of ownership of wireless versus wired and the crowd just dies down. It does take fact and a certain amount of pragmatism in dealing with them to avoid those conflicts.”

On the future of healthcare and the Kaiser model ...



“The cost of healthcare in this country has gone through the roof. The last hope here, I think, is the Kaiser model. For a lot of very good reasons—it’s about efficiency; it’s about effectiveness; it’s about best practices leading efficiently to best outcomes and codifying them and repeating them. Repeatable best practices. Digitizing the care delivery process, vertically integrating the organization—bingo! Then you have a database of best practices, best outcomes, and you have the tools through the electronic medical record to be able to communicate the data in terms of scripted approaches, recommended drugs and the outcomes that are achieved.

We’ve got a workforce that works directly for us who will respond, not a bunch of doctors out there in the network that just do their own thing and charge you. Our drug costs are half, *half*, of what the rest of the nation pays. Why? Because through evidence we’ve been able to determine that generic drugs, in many cases, work just as well—in many cases better. We were one of the ones who first revealed the Vioxx deal, because we tracked the results, we were watching the patterns. Other healthcare organizations out there in this country are not designed to do that. Everyone is a third-removed, fourth-removed relationship. They are just a health insurance company, they don’t own hospitals, they don’t directly manage doctors exclusively dedicated to them. That’s not what happens here. Kaiser a different model and can very effectively reduce the overall cost, gain much better outcomes and have the opportunity to significantly improve healthcare, including saving lives.” ■

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