



Paul Wallace MD

...short story... populationist - improving health, one patient at a time

footprints: physician for 30 years, the last 20 with KP; started as an academic hematologist doing bone marrow and leukemia research, now a 'recovering' oncologist who has spent the last decade learning about population based care and how to better generate, share and leverage clinical knowledge with patients and clinicians | Asking 'why not'? and 'what if'? Balancing perspectives and seeking a middle ground towards meaningful change | **key areas of interest & expertise:** learning, impact of technologies on work, population health

key guides & inspirations: father and father-in-law who lived well and full lives | **motivations & passions:** personal-family; professional-making 'it' easier; imagining what might be. | **what makes it all worthwhile?** seeing meaningful change in how folks think and act; also "McGyver moments" (from the old, perhaps ancient...TV show...new solutions with stuff on hand)

Q: What one or two issues would you like to address for this interview and why?

A: Accelerating learning - why information technologies change the rules and roles for providers and patients.

Q: What do you see as potential barriers, pitfalls, risks, "opportunities," or remedies?

A: "Things" are changing faster than we are currently set up to manage — it is necessary to know with validity and precision what works for which patient, and the number of considerations is exploding. In other words, the rate of knowledge-generation is changing rapidly. And with that comes a need for a change in roles.

Folks my age went to medical school believing that what they were learning would be relevant throughout their careers. For example, diabetes at one time was considered a blood sugar disease and required blood sugar management. Now we have a very different understanding of diabetes based on new knowledge — i.e., a major issue in diabetes is cardiovascular disease. Preventing cardiovascular disease brings into play a host of changes in diabetes care. Risk assessments and behavioral changes are now considered key elements in managing diabetes, and there are other changes such as team management. This is a fundamental change, and leaders need to be aware that new role models are needed to help manage this change.

Other changes include an incredibly diverse workforce. And yet, in academia, we currently have a less diverse population of leaders and one that is more "old school." I see it largely as a generational issue. A

challenge to senior leaders in academia is to listen carefully to new ideas brought forth by younger faculty and others. But change will occur as these new people - and their new ideas - come up into the ranks.

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Beyond just the explosion of new things, for possibly the first time — largely due to the influence of technologies — major changes and transformations in how health care is delivered and received are occurring in a much shorter 'cycle time' than the duration of a career; similarly, many — possibly most — health care providers can be 100% confident that the knowledge and skills they will use in the middle, or later, in their career will not have been learned during classical training and will have (hopefully...) been picked up 'along the way'. Our current institutions, professional

roles, and existing professional and learning relationships carry over from a past that did not require such active ongoing management of change. Our approach to learning and knowledge-generation has been an elite and separate process parallel to mainstream delivery of care and also quite distant and opaque to the key object of that care – the patient. I suspect this will not be sufficient going forward.

A key issue I see is that we need a new paradigm shift for change management. And paradigm shifts are hard. In the past, leaders would manage change with an idea that there was a beginning and an end. With the rate of change we are experiencing, change is consistent and persistent. A key issue for leaders is to retool to a mode of working to manage the “rate of change” to help make it tolerable and to have an awareness of the need for managing change over time as compared to a thinking of it as managing a single change and then we are done.

What is also challenging is to persevere in doing right in the face of so much change. I think it is key to have a vision and evolve to how it should work, work toward that and sustain the course despite difficulties. In that way, progress can be made.

Q: If you had one wish for an ideal, what would that be? Or a vision? However you want to answer this...

A: Knowledge-generation that is both rigorous and relevant will be an integral part of overall care delivery, and learning will be ongoing, participatory and engaging for both patient and provider.

Q: What would it take for that to happen?

A: Digitalization of care with electronic medical records (EMRs), personal health records (PHRs) and other health information technology (HIT) is an initial step, but the heavy lifting will be redesign of workflows and roles for both health care professionals and patients. Intertwined will be a similar transformation in classical research and knowledge-generation processes, roles and accountabilities.

Q: What do you see as potentially helping medical leaders and others with what you've selected to address?

A: Ultimately, I think the patient's interests will prevail; they will want the “right thing at the right time” and, as in other industries, I suspect they will

both help define ‘right’ and ensure that they get it. The patient population is also arguably the greatest untapped resource in health care – both for participating in their own care and for helping ‘lead’ how and what knowledge would add the greatest value in improving their overall health.

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We need to see and pay close attention to patients' interests. For example, we may have a very small absolute risk reduction and large number-needed-to-treat (NNT) for reducing mortality with a given intervention, but patients may want the intervention anyway. Our quantitative model in this situation is insufficient to meet their needs. As Roger Pielke Jr. points out in The Honest Broker, science is simply one of many inputs when making decisions. Passing evidence through a series of filters including the patient's unique view becomes very important.

In creating patient-centered care, I see challenges particularly for medical leaders who have not had the opportunity to directly experience care or those who have not had a major health care issue in their families. It's important to not get trapped in Ivory Tower thinking or to try to get too quantitative in how patients should be managed.

I think we've learned some important lessons from the Foundation for Informed Medical Decision Making through the work of Karen Sepucha, Al Mulley, and others on measures of decision quality. 1) Does the patient have an accurate understanding of the didactic information they need to consider; and, 2) Did the intervention received align with the patient's values and preferences. I think it is important not to blur these two things by melding them into a single number. For example, does a patient facing a CABG understand that there is a trade off between being able to be more active with the surgery, but a risk of decreased cognitive capabilities? Someone who loves tennis might opt for the surgery; someone who is not very active, but enjoys crossword puzzles might be better off without.

It's important to step back and really listen to the patient. It's important to involve consumers to look at things through a different lens. It's not about right versus wrong; it's about reconciling points of view.

And ways in which we use data can help with a more patient-relevant approach too. I also fall back frequently on metaphors, and one I think is relevant is the anthropologic (e.g. workflow...) challenge that was encountered many generations ago with the transition in food 'generation' from hunting/gathering to farming. I would argue that, up until now, the research process has appropriately had to 'hunt' — seek out — and even create — data to reflect care events. This has been optimized for a world based in paper where data is rare, expensive and must be actively 'hunted' by skilled but relatively rare and valuable individuals and resources to support learning. We are now moving to an era much more typical of 'farming,' where data, generated as a by-product of care delivery, will be abundant — perhaps overwhelmingly so — and potentially widely accessible. Harvesting knowledge in this new context will require no less of a transformation in infrastructure, roles and 'rules' than it took for hunters to adapt to the plow.

For example, with the use of the electronic medical record, EpiCare, (which we call KP HealthConnect) within Kaiser Permanente (KP), we can standardize the use of chemotherapy regimens across KP. Historically there is a lot of variability amongst oncologists in adjusting doses, lab testing, etc. This variability limits cross-patient observations of the impact of care. We can now reach agreement about treatment protocols across the entire KP enterprise using the decision-support capabilities contained in the electronic medical record. This kind of care process variability likely did not contribute to improved outcomes for many patients. While some patients will still require customization of their care regimen, around three-quarters do not. More importantly, this type of standardization will allow wider and ongoing assessment of the impacts of care. There is even the potential of predicting outcomes to some degree for a specific patient in the exam room using data harvested from recently-treated patients most like the patient under consideration. If we are successful in doing this type of by-product-knowledge, it can complement and substantially extend the data generated from well-done RCTs.

Q: Do you have favored resources for any groups on the topics you are addressing?

A: There is a beginning literature discussing acceleration of health care learning using HIT. The substantial literature seeking to either differentiate between or merge quality improvement and research is also highly relevant. An especially provocative and key paper for me has been an editorial by Andrew Grove of Intel in the June 2005 JAMA where he contrasts knowledge development in the microchip business with the historical approach of medicine and health care. Health Affairs has published several works and the Robert Wood Johnson Foundation (RWJ) is funding a rapid learning initiative out of George Washington U led by Lynn Ethredge, an experienced health economist.

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Q: Do you have other general favored resources? Medical or otherwise?

A: I travel a lot — I try to read the NY Times, Wall Street Journal and USA Today concurrently which gives a pretty good and diverse feel for where folks are at on major issues — quite intriguing now that health reform is rising to the top of so many priority lists

Q: Is there anything you wished we had asked or that you'd like to say or address?

A: Does the above somehow compete with or replace EBM?

I see the above very much building on what has been learned and achieved in 20+ yrs of successful effort to refine EBM. The challenge is taking the discipline and rigor shown to be critical for validity and transforming

it into a resource for this next century to durably and sustainably guide how we will deliver and receive care.

While there is still a lot of work to do in getting to valid information through the use of science, some of the success I see is a movement from 'eminence' to 'evidence.' Look at the evolution that is happening through the use of performance measures. We are now moving into an era of real accountability and having meaningful monetary impact through their effective use. This has only come about because of a greater understanding of, and focus on, EBM. There are bigger improvements in formulary management and medical technology assessment in many places, though I think generally there is a lot of room for improvement there.

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As an indirect metric, I look at the allocation of \$1.1B to comparative effectiveness. Before dollar amounts directed toward these kinds of efforts were a comparative pittance. And I see the backlash as significant too – people are paying attention to evidence in a new kind of way. We're able to have a dialogue about it.

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I think it is also key that we are starting to see a shift from people believing that lack of evidence means lack

of benefit to a better understanding that absence of evidence is just that.

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Q: Any <medical leaders . org> interview candidates that you'd like to hear from?

A: Consider Lynn Ethredge as above...

Q: Do you have a favorite story for us?

A: About a dozen years ago when I was still actively practicing medical oncology, I encountered a then-unique-to-me, patient – a woman who came to see me for a third or fourth opinion and who was the librarian for an online cancer 'talk group' for 'her' cancer; and whom I quickly learned in our initial interview, knew more of the didactic knowledge about her disease than I did. After defensively crossing all of my available limbs and pulling as far back in my chair as possible, out of both curiosity and feeling challenged, I asked what possible role I could provide to her – her response stuck with me: "I don't need you to tell me what to do... (and motioning to her briefcase packed with the literature on her cancer)...I need you to help me understand what all this information means for me!"

Q: And almost lastly, the best medicine is to be happy, yes? What's your favored flavor-of-the-moment to make you or any of us more happy? Toss us a little tidbit from your medicine cabinet, please.

A: Imagine being a one year-old puppy in the dog park... (I have a year old Golden Retriever)...

Q: Now tell us something fun about you?

A: We have 2 (of our 4) kids getting married this summer – it's a joy to observe, participate, remember back and be hopeful going ahead...