commentary

Dr Garfield's Enduring Legacy—Challenges and Opportunities

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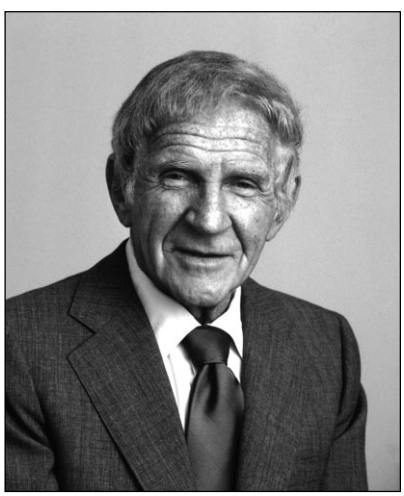
It's about time. For too long, Sidney Garfield, MD, has stood in the giant shadow cast by his more celebrated partner and friend, Henry J Kaiser, the great entrepreneur and industrialist. Mr Kaiser's name and fame live on, mainly in association with the only nonprofit organization ever incorporated by the builder of more than 100 for-profit companies—Kaiser Permanente (KP). But the physician whose extraordinary vision and daring innovations in health care delivery that gave birth to that same organization remains largely unrecognized beyond the select circle of medical historians and the heritage-minded physicians and staff of KP.

One needn't minimize the vital role of Mr Kaiser in KP's story to assert the seminal role played by Dr Garfield. They were genuine partners, each bringing to the enterprise critical elements lacking in the other: money and organizational genius from Mr Kaiser; a visionary mind and an unrelenting drive for innovation and quality improvement from Dr Garfield; and from both a genuine belief in and commitment to human dignity and progress.



Sidney R Garfield, MD, 1977

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This centennial of Dr Garfield's birth is a timely occasion not only to recall and celebrate his role in creating and evolving the unique model of health care delivery that would become KP, but to examine as well some of his key insights and innovations with regard to the current and future state of American health care. Fortunately, Dr Garfield himself articulated his ideas in a number of influential documents. These included, most importantly, his 1945 address to the Multnomah County Medical Association in Oregon,[1] in which he spelled out the essential elements of what we have come to call Permanente Medicine, and a forward-looking article in the April 1970 issue of *Scientific American*[2] (see page 46). In that article, he reiterated those foundational qualities and went on to anticipate a radical transformation of the health care system via the incipient power of information technology. In addition, the evolution of his ideas was expertly traced and recorded by his physician colleague John Smillie, MD, in his excellent 1991 history of KP, *Can Physicians Manage the Quality and Cost of Health Care?*[3]

Anyone who has examined Dr Garfield's long career will appreciate the difficulty of assessing the historical and/or current relevance of his ideas and innovations. As his diminishing number of surviving colleagues will attest, he was a fount of ideas—virtual intellectual fireworks—admittedly igniting a few duds among the brilliant rockets. The ideas ranged across the entire spectrum of health care, from delivery models to financing to hospital design. In the end, it may fairly be said that he achieved his childhood dream of becoming an engineer (he is said to have broken down and cried when his parents insisted he attend medical school) by engineering our unique model of health care.

But among all his many lasting contributions, which ones constitute the essential core of his life's work? And what relevance do they have for today and tomorrow?

I believe Dr Garfield's lasting reputation will rest on four big ideas that, individually and in combination, powered fundamental transformations in health care. They are:

- the change from fee-for-service to prepayment
- the promotion of multispecialty group practice in combination with prepayment
- the emphasis on prevention and early detection to accomplish what he termed "the new economy of medicine," in which providers would be rewarded for keeping people healthy; and,

- finally—and most presciently—the centrality of information technology in the future of health care.

Significantly, each one of these 20th century innovations, three of which are deeply embedded in KP's own genetic code, is at or near a critical crossroads in this first decade of the 21st century, either still struggling for broad acceptance or under fresh assault as failed assumptions. Let us briefly examine each in turn.

Prepayment

In his 1930s work at his little fee-for-service Contractors General Hospital in the Mojave Desert caring for aqueduct construction workers, Dr Garfield was saved from the looming threat of bankruptcy by the discovery of prepayment for comprehensive services. The idea was borrowed from the Ross-Loos Clinic in Los Angeles County and rooted in the late 19th century traditions of "industrial medicine." Collecting a dime a day from approximately 5000 aqueduct workers, Dr Garfield's desert enterprise prospered under prepayment, and his eyes were opened to the transformation of care made possible when wellness rather than sickness became a revenue source.

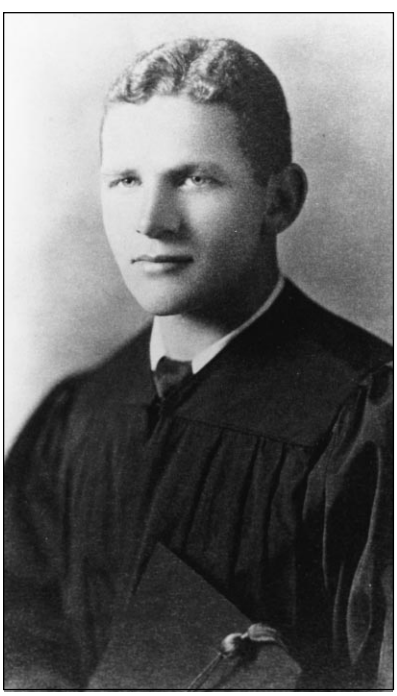
Prepayment, he said, "is the old principle of the well paying for the sick; the houses that don't burn down paying for those that do."[1] But even more important, he noted, prepayment "brings the patient to the doctor earlier in his illness and more often, which is one of the most important effects … because it permits the practice of true preventive medicine. Any plan that sets a barrier between the patient and the doctor by eliminating the first two or three visits, by covering the patient only for hospital or surgical care, or by limiting this coverage in other ways, in our opinion defeats its purpose and is not good."[1]

Employer-based prepayment led Dr Garfield inevitably to a focus on prevention and what would come to be known as health maintenance and wellness. It solved for him the critical question of the economics of medicine: "how to keep the people of this country well and healthy and, at the same time, preserve the medical and hospital organization which must do that job, but under our present (fee-for-service) system derives its income out of sickness."[1]

Prepayment for comprehensive services has served as one of the critical strands of KP's DNA since the very beginning of the organization when Dr Garfield first partnered with Mr Kaiser to provide employee health services at Grand Coulee Dam and later in the World War II shipyards. Yet 60 years later, in an era of industry-wide cost-shifting and a proliferation of high-deductible plans, we are confronting a question that Dr Garfield might have found unthinkable: Would Kaiser Permanente still be Kaiser Permanente without prepayment?

Dr Garfield actually raised a related question in his *Scientific American* article[2] when he asserted that, without some sort of regulator on access to services, prepayment could open the gates to a virtual flood of the "worried well" into physician's offices, overwhelming the organization's resources. His solution was the periodic multiphasic exam, which would segment the population into various categories of the sick and the well, with the healthy diverted into separate health facilities staffed by what he believed were more appropriate and lower paid health educators and other allied health professionals.

Dr Garfield's faith in the ability of the multiphasic exam to accurately discriminate between the healthy and the sick would be challenged in later years and ultimately abandoned when two decades worth of clinical evidence suggested it generated an excessive number of false positive indicators of disease. Much the same problem has plagued the continuing search for the holy grail of sophisticated, population-wide risk-adjustment models, using prior utilization, demographics, and self-reported health. At their best, such models are capable of explaining only about 20% of future utilization.[4] Prospective segmentation works well for certain subpopulations, such as the frail elderly and people with certain identified chronic and complex diseases; but as a broader population strategy it has proven to be one of Dr Garfield's less robust ideas.



Dr Garfield's medical school graduation photo from University of Iowa Medical School, 1928.

In any event, Dr Garfield's 1970 concern about the potential of prepayment to open the floodgates of the worried well into doctors' offices has not been borne out by experience. Ever since we implemented same-day urgent care for certain specialties, few members have abused the opportunity. Most essen-

tially healthy people, it seems, have much better ways to occupy their time than sitting in doctors' waiting rooms reading ten-year-old copies of *Time Magazine*.

Nonetheless, there is no question that prepayment is under assault today, primarily from those philosophically opposed to the traditions of social insurance in which the sick and the elderly are subsidized by the young and healthy (who, it may be argued, are in effect "prepaying" their own future health needs). The apparent growing popularity of health savings accounts (HSAs) and other forms of low-premium, high-deductible "consumer-directed health plans" is a direct challenge to the concept of prepaid, comprehensive benefits that have long been a defining feature of KP.

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As an organization, we have taken important steps to adapt to the realities of the marketplace by offering new competitive benefit packages designed to offer more people access to the benefits of Permanente Medicine, but with more cost-sharing than Dr Garfield ever envisioned.

Is this progress or retrenchment? What is the right balance between unfettered, out-of-pocket personal liability for health care and open-ended social insurance? In the long run, there is good reason to believe we can and will adapt to the market by developing more intelligent and clinically sound cost-sharing benefit designs without creating significant barriers to needed care. Such work is currently underway.

Dr Sidney Garfield, (right) and Dr Cecil Cutting, (left) first Executive Medical Director of The Permanente Medical Group, 1950.

Multispecialty Group Practice

With the financial security provided by prepayment, Dr Garfield was able to realize his second great contribution to what would become Permanente Medicine—multispecialty group practice. Here again the idea was not unique to Dr Garfield, but borrowed from other pioneers, such as the Mayo brothers in Minnesota and, especially, Dr Garfield's own experience with a form of group practice at LA General Hospital. There he had served as a chief resident with other first generation Permanente physicians, including Wallace Neighbor, MD, (first Medical Director of what would become Northwest Permanente) and Raymond Kay, MD, (founding Medical Director of the Southern California Permanente Medical Group). "We grew up at the county hospital," was how Dr Garfield put it.[1]

Dr Kay later recounted how "as interns and residents, we … appreciated the fact that we were able to develop professionally through sharing patients and learning from the other physicians with whom we practiced …. We then started thinking, 'Wouldn't it be wonderful if we could really practice as a doctor with a group of doctors where you could share knowledge, and share experience, and share patients, and where you could take care of people with no economic blocks?'"[1]

Dr Garfield strongly agreed. "It has always seemed a paradox," he noted, "that in universities, which teach us medicine, we learn medicine under the highest type of group practice, but when we go out into practice, we revert to the old type of individual private practice."[1]

Dr Garfield's great contribution to the evolution of group practice was to layer onto it the additional power of two other elements: prepayment and integration of the medical group with what he termed "adequate facilities"—"bringing the doctors' offices, laboratory, x-ray, and hospital … all together under one roof."[1] Group practice alone could be a powerful engine for continuous learning and coordination of care; integrating it with the full range of medical facilities served to align the otherwise conflicting interests of doctors and hospitals; and then layering on prepayment removed financial barriers to care while opening the door to prevention and health maintenance. With all these elements in synergistic combination—first achieved at Dr Garfield's Mason City Hospital at Grand Coulee, where Mr Kaiser first saw and embraced Dr Garfield's vision—the young surgeon, still in his mid-30s, had engineered the miracle of Permanente Medicine.

Over the past 60 years, the Permanente Medical Groups, which evolved out of the old "Garfield and

Associates," have been more successful than any group in the country at exploiting and enriching the possibilities of multispecialty group practice—largely because of the grafting on of prepayment and integrated facilities, as well as our sustaining partnership with Kaiser Foundation Health Plan. This unique model has set the standards for both efficiency and clinical quality in most of the communities in which we operate, and it continues to be touted by some of the smartest minds in the country (and not all within Permanente) as the best solution to the multiple crises besetting American health care.

And yet, 74 years after President Hoover's National Committee on the Costs of Medical Care advocated group practice as "essential" to "meet the modern demands of medical science and technology,"[5] it is still playing catch-up to the tradition of solo and small group practice. What's more, it is facing significant challenges on two fronts: from stand-alone disease management ventures and from the growth of so-called "high-performance networks," an insurance-driven promise of "groups without walls"—and, in most cases, without clinical coordination or any form of economic integration.

The advent of the disease management industry as a carve out from the delivery system could not have occurred had the nation embraced prepaid group practice, in which disease management is taken for granted. Yet given the disaggregated nature of the delivery system in most communities today, insurers have been able to promote the idea that they can achieve all the advantages of an actual group practice by profiling individual doctors and hospitals, selecting the most efficient providers, and then lumping them all together into a pseudo-systemic "high-performing network" with an external stand-alone disease management component. In a world that still clings tenaciously to *Marcus Welby, MD,* it looks to some like a reasonable alternative to genuine group practice.

Prevention

As I have noted, preventive health care and health promotion became an early principle of Permanente Medicine as a direct result of prepayment, which put a premium on keeping workers (and, later, whole communities) healthy. Recalling his early experience with prepayment in the Mojave, Dr Garfield noted that the "financial result (of prepayment) was impressive, but another result impressed us very much—a resulting change in our attitude. Prior to (prepayment), we were anxious to have injured workers come into the hospital, since it meant remuneration …. Under the new arrangement, we had the same amount of income whether the workers were injured or not. Obviously, we were better off if they remained unhurt."[1] And thus began Dr Garfield's long and growing interest in safety engineering, preventive health, and health education and wellness programs—the direct antecedents of today's "Thrive" campaign.

The great tradition and growing sophistication of preventive medicine at KP since Dr Garfield's time would, I am certain, impress and gratify him. Motivated by awareness that preventable illness makes up 70% or more of the total burden of illness and its associated costs, KP has long embraced an expanding concept of prevention that includes, in addition to such traditional practices as immunizations and periodic screenings, a broad array of health promotion and patient self-management practices. Through the Care Management Institute and our research units, we have focused on the development and diffusion of evidence-based guidelines for preventive practices and self-care for patients with chronic and complex conditions. And with the implementation of KP HealthConnect, we are now capable of driving the promises of preventive medicine to an entirely new level of practice, with automated physician reminders and an array of patient-oriented health education and self-management tools.

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The concept of preventive care has also had great impacts across the entire health care environment. Most of the HEDIS measures by which HMOs are evaluated for clinical quality are actually preventive and early detection practices, as are many of the measures by which health plans and providers will be reimbursed in most of the new pay-for-performance initiatives.

However, as health care costs continue to push against the limits of middle-class affordability, the importance of many preventive practices is losing ground in some significant ways.

As we know from our own research, while some common preventive practices may be cost effective at an employer or social level (by reducing absenteeism, for instance), they may not be for the health care industry in isolation. This fact has led some insurers to underpay primary care physicians for preventive services. In fact, Medicare has only recently introduced coverage for initial health exams by physicians. Further, early evidence from the introduction of high-deductible health plans by competitors suggests lower compliance with needed visits and medications for diabetes and hypertension.

Drs Garfield, (left) and Cutting, (right) in a water fight, 1950.

Information Technology

Were Sidney Garfield to make an appearance today, I suspect he would be aghast that so many other aspects of American life and work have enjoyed the benefits of sophisticated information systems while the health care industry remains largely stuck in the "Paper Age." Having envisioned and promoted many of the great improvements that computers could bring to medicine back in the 1960s, Dr Garfield—never a patient man—would no doubt wonder why, more than four decades later, it required a presidential initiative with its own Executive Office department to kick start the automated medical record.

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As early as 1960, Dr Garfield embraced the idea that computers—those giant punch-card machines of the period—could somehow lead to a fundamental transformation of health care delivery. He assigned the brilliant young physician Morris Collen, MD, an internist who had a degree in electrical engineering, to look into the possibilities. As John Smillie, MD, recounted in his history of TPMG, Collen reported back "to confirm that Dr Garfield was correct: Medical electronics was beginning a period of great innovation and diffusion, and … we should begin to take advantage of the potential of electronic digital computers."[3] Remember, this was 1960.

The story of KP's pioneering work with information technology under the sponsorship of Dr Garfield and the direction of Dr Collen is a remarkable tale. Not more than half a dozen places in the world were doing comparable research in health care. As early as 1968, Dr Garfield could confidently write that "The computer cannot replace the physician, but it can keep essential data moving smoothly from laboratory to nurse's station, from x-ray department to the patient's chart, and from all areas of the medical center to the physician himself."[1] Two years earlier, Dr Collen had declared in a speech to the Minnesota State Medical Association that "The computer will probably have the greatest impact on medical science since the invention of the microscope."[1]

By 1970, when Dr Garfield spelled out his grand vision for the future of medicine in *Scientific American*,[2] he included a series of diagrams of the evolution of health systems through the decades, beginning in 1900 (see page 48). At the center of each diagram up to 1970 was the hospital—the central axis of the system. In his diagram of the system of the future, the hospital is replaced by the "computer center"—an amazingly prescient vision for its time. He began telling his Permanente colleagues that they had all the elements of a "jet-engined plan" for health care, but without the computer and other innovations, such as health education centers and expanded use of nurse practitioners, they remained hitched to a "buggy" of traditional medical practice.

Despite the many fits and starts, leaps and stumbles along the almost half century-long path to KP HealthConnect, I am certain Dr Garfield would be proud of the organization today for the leadership it has continued to show by implementing the largest and most sophisticated health information technology system in the world at a time when much of American health care is still debating the "business case for IT." Although Dr Garfield would be on familiar ground with many of the capabilities of KP HealthConnect, he would have to be impressed by at least one major feature: that of rapid, asynchronous two-way communication between doctors and patients and doctors and doctors, and the ability of patients to input data into their medical record and access information from it. In the pre-Internet era, Drs Garfield and Collen could only glimpse the full potential of the technology to virtualize many elements of the physician-patient relationship, moving much of the interaction downstream in the interests of efficiency and improved service.

Were Dr Garfield alive today, he would feel a great sense of satisfaction, and perhaps vindication, to have heard Dr David Brailer, the federal government's point man on health information technology, last year tell KP's current generation of IT leaders that they are "among the privileged few …."[1]

"You all are pioneers," he declared, and "with every click of the mouse, every use of the keyboard, every time you take another step with your use of KP HealthConnect, you are defining the national experience."

That's the kind of mission Sidney Garfield had in mind for the organization he co-founded.

Conclusion

As I have noted, the four great ideas on which so much of Dr Garfield's enduring and future reputation rests are under varying degrees of challenge today. That fact is of legitimate concern to many of us—and to many outside KP, as well—But perhaps we should also look at these challenges as opportunities—something both Dr Garfield and Mr Kaiser were famous for doing. As Dr Garfield told the TPMG executive committee in his annual report in 1964, "Opposition by organized medicine to our program was good for us. It kept us intellectually honest and stimulated us to do better continually."[1]

Just as Dr Garfield and his fellow Permanente physicians were forced by skeptics and outright powerful opponents to prove the value of group practice and prepayment, the current generation of Permanente doctors and KP leaders and employees are being challenged to bring greater proof of the value of our model to the claims and promises we make to employers and members. In meeting these challenges, we should remember that the principles that Dr Garfield laid down almost 60 years ago are not sacred, and in fact they have all evolved in significant ways since they were first articulated. As he warned an interregional meeting of Permanente physician leaders in 1974, "Institutions tend to become static; they build walls around themselves to protect themselves from change and eventually die. You should fight that [tendency] by opening up your thinking and your ideas, and work for change."[1]

Most important, the principles themselves are not the object of Permanente Medicine. If there are better ways to achieve the ends of Permanente Medicine—defined by Dr Garfield himself as "to provide the best quality care our members can afford"[1]—we should never be shy about making corrections, adjustments, refinements, or wholesale changes when demanded by our own 21st century environment. Permanente Medicine—Dr Garfield's great gift to American medicine—will endure only so long as it remains a living, growing, adapting way of practicing medicine. ❖

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Advice

"Keep your feet on the ground, keep your hands on your purses,
make sure your operations are as economical as possible,
and build up your wealth for strength.
Keep your arms on each others' shoulders,
and keep your eyes on the stars for innovation and change for the future."

— Sidney R Garfield, MD, 1906-84, presentation to The Permanente Medical Group Executive Committee, August 1974
This "Moment in History" quote collected by Steve Gilford, KP Historian