The Story of General Practice and Primary Medical Care Transformation in the United States since 1981

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Consensus Study: Implementing High-Quality Primary Care

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Introduction

History can sneak up on you like a bobcat lurking in ambush. In less than forty years, the landscape of health care and the particular setting of primary medical care in the United States and the generalist practice upon which it is based experienced transformation. This makeover came with great hope and much effort but didn't turn out as expected, and primary medical care and generalist practice remain imperiled. All along, if you were a generalist clinician, the experience felt like being prey to a hidden predator. You observed historical events, the guideposts of history, even celebrating some with good intentions promoted by your professional organizations and others, and you discerned changes and approaching trouble. You even noticed surprise moments, like being in a riptide, when change suddenly accelerates. You were swept along within the larger tides of history, and, suddenly, with a silent pounce, everything irreversibly changed. Now, with the 2020 global pandemic of COVID-19, transformation is happening again. This paper is a personal exploration of the historical evolution of primary care transformation since 1981 with a steady gaze on lessons learned and their implications for the future implementation of high-quality primary medical care and generalist practice.

Unanticipated harms of well-intended policies implemented in the spirit of incremental compromise is a recurrent headline. Watch for it in what follows. Four major recommendations surface from this historical investigation.

1) Establish a unified identity for the generalist discipline and craft practiced within primary medical care and create a common educational pathway and a new National Institute of Generalist Health and Medicine. Grow the generalist clinical workforce.
2) Immediately implement business models that support and promote this generalist, whole person, relational care over time and cease current models that carve care into billable pieces and/or base it on performance of reductionist outcomes.
3) End policies that fragment care, add administrative burden and diminish investment in relationships.
4) Change the language of generalist care to one more accurate, relational, and meaningful. Language is a powerful tool used by the dominant culture to co-opt and homogenize the values of others.

Notice, as the historical story develops, how these might have made a difference in the shape of transformation.

The words in the title provide deliberate interpretive background. I'm sharing a "story" and not a formal history; I'm not a historian. My livelihoods include being an anthropologist and a family physician clinician, administrator, educator, and mixed methods researcher who's lived this story. I intentionally use the words "general practice" and "primary medical care" to refer to different aspects of the larger horizontally integrated construct, primary health care. Primary medical care specifically refers to the health care services delivered to individuals and families at the front door of the health care delivery system. General practice represents the discipline and craft practiced behind those doors. The importance of this distinction becomes more apparent as the story unfolds. Finally, this story specifically examines the "transformation" that happened to primary medical care between 1981 and today, and, as I write, transformation is transpiring again, but that's the story for this committee.

Following a brief account of the transformation that materialized in primary medical care since 1981, this paper proceeds to examine how it occurred. Beginning with the identification of early seeds for change and describing the processes of transformation in three waves, I review several compelling examples of good intentions gone awry, especially primary medical care workforce changes and capitation as a means of payment. I'll finish with a review of lessons learned and their implications for future implementation of high-quality primary medical care and generalist practice.

The Transformation

For the first two-thirds of the twentieth century, the lone general practitioner served as the face for primary medical care in the United States. He, and it was nearly all men, was also a shrinking presence with the rise of specialty care and urbanization post-World War II.[1,2,3,4,5] This resulted in the Millis,[6] Folsom,[7] and Willard[8] commissioned reports which were soon followed by the creation and establishment of family practice as the twentieth specialty in 1969 as part of an effort to reverse the decline. General internal medicine and general pediatrics were also finding their way in academic medical centers and responding to the needs of their patients and communities. When I completed family practice residency in 1981 and entered independent small group practice, it appeared general practice was making a comeback through the rapid growth of family practice and continued presence of general pediatrics and general internal medicine. Other than the rise in small two to four-person groups and the requirement for extended residency training and board certification, the contours, business models, and expectations for practice would have felt familiar to a 1940 general practitioner. That appearance of forecasted growth soon vanished. Table 1 summarizes the transformation that would happen from 1981 to the as yet unseen future that stimulates the need for this report. The table, using the lens of complexity theory,[9] depicts two complementary sets of forces

impelling this trajectory. The shape and operations of general practices co-evolve around their internal organizing values or attractors and interact with the dynamisms of the external milieu or fitness landscape.

In 1981, most general practices were still independent, small, and organized around relationships, patient loyalty, reputation, place, community responsive fee-for-service with minimum income threshold, professional duty, and personal and family care with emphasis on comprehensiveness, continuity, and access. This was GP 1.0. Too often, we look back at these practices with fond nostalgia. But they had a troubled shadow side. They were paternalistic and lacked transparency with no means for knowing about the quality of their craft and care. GP 1.0 was physically and emotionally burdensome on the physicians with high rates of suicide, addiction, and family distress.[10,11] These practices were also disconnected from each other and connected to the larger health care system and local community only through personal relationships and the more closely-knit neighborhoods of the time. The tight weave of the social fabric will loosen. Change was needed, and, over the next forty years, primary care organizations and others trying to advance primary medical care or use it for their purposes will be at the forefront of trying to generate that improvement.

Transformation to GP 2.0 happened. By 2011, most general practices would be almost unrecognizable to past generations of primary medical care clinicians. They were larger, part of health care systems, and not organized around values, professionalism, and relationships. Instead, GP 2.0 practices were built around a new administrative and technological language including National Committee for Quality Assurance (NCQA) recognition,[12,13] accountable care organization (ACO) requirements,[14] electronic medical records (EMRs) with meaningful use (MU) guidelines,[15] fee-for-documentation and compensation based on work relative value unit (wRVU) productivity,[16] and pay-for-performance (P4P) metrics.[17,18,19] They struggled to retain a sense of calling. These practices, named patient-centered medical homes (PCMHs)[20,21] or Advanced Primary Care,[22] addressed many of the concerns of the traditional model. They aimed to be more collaborative and transparent, overflowing with various measures of how they were doing, and more formally connected with each other and the health system. Nevertheless, the formal connections had an imbalance of top-down over bottom-up. They contained rising moral distress and disturbingly high levels of burnout,[23] community and personal disconnections, and inordinate and surprising dissatisfaction all around.[24] The personal paternalism of the individual physician was replaced by the impersonal paternalism of systems. Primary medical care had transformed, much of it foreshadowed in the IOM reports of 1978[25] and 1996,[26] but not exactly to what was dreamed.

Transformation is intimately connected with the social, political, and economic soil. That soil imparts a taste. First the soil was infused with industrial production. Then it was with business measurement and accountability. These two favored the growth of a service-based industry, allowing the generalist craft to wither. With the advent of big data and technology, powerful interests turned to algorithms and mechanistic thinking. These things were done to adapt and improve. Instead, we assimilated. Here's a story of how that happened. As we prepare for another round of reforms and potentially top-down implementation of worthy objectives, pay particular attention to good intentions not working out, to the toxicity of means for implementation of those intentions, to language changes, and to the absence of a common voice speaking on behalf of generalist health and medicine.

Seeds for Transformation

The fluctuating cultural winds of the mid-1960s and 1970s prepared the soil for change. Three seeds were sown that become key forces in the transformation of general practice. The first seed, **government and corporate mental models**, blew in with the progressive gusts of social responsibility associated with the Great Society, the civil rights movement, and second wave feminism seeking workplace equality.[27] Inside this seed were the tools of bureaucracy, corporate and industrial management, quality improvement, and accountability. With the creation of Medicare (Title XVIII) and Medicaid (Title XIX) through the Social Security Amendment of 1965, federal and state governments became major players in health insurance and health care in general.[28,29] Government's role through money, regulations, and politics in the future shaping of general practice and primary medical care was deeply planted. The Health Maintenance Organization (HMO) Act of 1973,[30] expanding on the 1940s success of Kaiser Permanente's HMO model reinforced corporate mental models and created a seedbed for the rise of HMOs 15-20 years later.[31,32]

Innovations in **information processing technology** was the second seed planted with the introduction of SPSS (Statistical Package for the Social Sciences) for IBM (International Business Machines) mainframe computers in 1968.[33] This marked the beginning for an increasing number of people having access and the ability for large data analysis. Both of these seeds will combine with emerging demographic changes to help drive primary medical care's transformation.

The third seed also blew in on the counter-cultural winds of the mid-1960s,[34,35,36] but this one came with challenges from its first planting. With the creation of Family Practice as the twentieth medical specialty in 1969, primary medical care received a specialty but there were already significant others in this same space. Primary medical care began with a **confused,**

fragmented identity, the third seed. There were several confusions. For starters, family practice, inheriting the traditions of generalism, began as a specialty. As such, it shared the primary medical care field with general internal medicine and general pediatrics, specialties with long and powerful pedigrees and the major medical traditions promoting sub-specialization. Fragmentation also happened by segregating care via the creation of Neighborhood Health Centers through the Office of Economic Opportunity in 1965 as part of the "War on Poverty."[37] This was the first of many good intentions, but created a separate primary medical care for the poor and underserved in the United States.

Even the language of general practice commenced with confusion. "General practice" has nearly disappeared from the everyday vocabulary in the United States; however, it remains the more common term elsewhere in the western world.[38,39] A brief history about the language of primary care may help. "Primary care" first appeared in 1961 in the landmark article, "The Ecology of Medical Care" by Kerr White and colleagues, with the words, "primary, continuing medical care" specifically referring to general practitioners as those delivering that care.[40] "Primary care" came into greater awareness in the late 1960s and early 1970s around the same time family practice became the 20th specialty. This use of "primary care" in the United States was partly a means for including general internists and general pediatricians who were beginning to see themselves as generalists with the arrival of a new "specialty" competitor. On September 12, 1978, the World Health Organization (WHO) introduced a vision for a new, ambiguous and ambitious entity called "primary health care" in the Declaration of Alma-Ata[41] and recently reaffirmed by the 2018 Astana Declaration.[42] WHO identified primary health care as the key to achieving "Health for All" around the world and included both primary medical care and all other community-based health-related services. But earlier that year, the Institute of Medicine published, *A Manpower Policy for Primary Health Care: Report of a Study*.[25] Although using the same phrase, "primary health care," this report quickly limited it to primary medical care and shortened that to primary care. Their definition of "primary care," with slight changes in 1996, remains the predominant one in the United States. This is not only confusing, but problematic. "Primary health care" refers to an approach, based on WHO principles, to health policy and services at both the individual and population levels and is a horizontally integrative concept. "Primary care," more accurately, "primary medical care," specifically refers to general practice-type services delivered to individuals and families at the entrance to the health care delivery system. "General practice" represents the discipline and craft practiced in primary medical care. As an anthropologist, I share concerns that the words "primary care," applied only to clinicians and their services, hides the real sources of primary care in the community, namely, family, friends, neighbors, co-workers, and lay health support. Not naming these services removes them from any meaningful health policy consideration. In this paper, primary care as kith and kin, primary medical care and its discipline of general

practice and health-related community agencies and public health services constitute primary health care.[43] Clarity in language can help clarify identity.

The three seeds found root, but the progressive winds had already stalled with the Vietnam War and the corruption of the Watergate scandal and began to rapidly shift with the taking of hostages in Iran in 1979. The stage was set and an over-riding theme for the story of primary medical care and general practice's transformation was foreshadowed by Arnold Relman, then editor of the *New England Journal of Medicine* when he wrote in a 1980 editorial:[44]

> *The most important health-care development of the day is the recent, relatively unheralded rise of a huge new industry that supplies health-care services... This new "medical-industrial complex" ... creates the problems of overuse and fragmentation of services, overemphasis on technology, and "cream-skimming," and it may also exercise undue influence on national health policy.*

Transformation in Three Waves

General Practice and primary medical care transform in three series of waves of increasing magnitude. Each wave is fed and formed by the larger events and cultural shifts outside of health care. The first waves, from 1981 through 1993, arrive with a dramatic change in wind direction and incrementally roll onto the beaches surrounding general practice and into the practices themselves, slowly eroding the traditional model of primary medical care. The second series of waves land with a roar of documentation and payment changes in 1994 and relentlessly accelerate the erosion and reshaping of the general practice coastline. The last waves appear in 2010 as the Patient Protection and Affordable Care Act[45] completing the transformation by the end of that decade. The years 1981, 1994, and 2010 perform as watershed years since they represent moments in time when the slope of momentum towards transformation inflects upward (see Table 2). The guideposts of this history, the specific events within each wave leading to transformation, are cataloged in Table 3. These three waves begin and end with the arrival of a new human life changing infectious disease epidemic. AIDS (acquired immune deficiency syndrome) caused by HIV (human immunodeficiency virus) is first recognized in the United States in 1981[46] and COVID-19 (coronavirus disease 2019) caused by SARS-CoV-2 (severe acute respiratory syndrome - coronavirus 2) becomes a global pandemic in early 2020[47] initiating another wave of potential transformation.

Wave 1 - 1981-1993 - Incremental Erosion

The prevailing cultural winds dramatically shifted in 1981 and took a conservative turn with the election of Ronald Reagan as President of the United States. This turn also marked an even

greater emphasis on individualism and a rise in identity politics.[27] The first case of an HIV infection in the United States was recognized that same year.[46] The disease it caused, AIDS, was both complex and chronic requiring highly specialized and complicated treatments, especially during the first decade after its arrival. It served as a critical factor in mobilizing the gay (now LGBTQ) community's political voice, an example of identity politics.[48] One outcome was Ryan White (RW) clinics, begun in 1990, to specifically manage the long-term specialized care of those with AIDS and became the first de-facto "carve-out" from primary medical care, a harbinger for future complex care situations.[49]

For the next forty years, the neoliberal politico-economic powers emphasized free markets by means of economic deregulation, reducing the size and influence of government, and strengthening the military.[50] This produced recurrent budget challenges which consistently proved harmful to primary medical care. The earliest of these challenges came in 1982 with the first significant cut in Title VII family practice funding.[51] High levels of support for generalist clinician training from Section 747 of the 1964 Public Health Service Act were vital to the rapid growth and development of family practice residencies. The 1982 budget cuts never get restored and greatly inhibit future residency growth.[52] Also, as a result of deregulation and related economic policies, this period experienced a steady rise in mergers and acquisitions accompanied by a widening of income and wealth gaps,[53,54] including the generalist/specialist income gap among physicians.[55,56] A growth in personal debt accompanied these changes,[57] and, most importantly for our primary medical care story, 1981 marked the beginning of the upswing in medical student debt[58] while, at the same time, the percentage of graduates from U.S. medical schools entering family practice declined to 10-12% where it remained.[59] The curtailment in generalist residency growth, a widening income gap favoring specialists, mounting student debt, and fewer medical school graduates entering general practice coalesced over time toward a diminishment in the generalist clinical workforce just as it's need was mounting.

1981 witnessed at least three demographic accelerations that, over time, increased the demand for access to primary medical care. The United States' population growth surged because of a new wave of non-European immigration;[60,61] life expectancy rose more rapidly along with co-morbidities,[62] and the obesity epidemic began its growth spurt.[63] All of these brought more appeals for health care. These changes fueled greater overall health care expenses but also an escalating cost of health care per capita.[64,65] As part of an effort to manage these rising costs and assure the solvency of Social Security and Medicare and building on the HMO Act of 1973, congress enacted the Medicare prospective payment system in 1983.[66] Instead of paying hospitals for each service delivered, Medicare now paid a set fee per person based on their diagnosis or DRG (diagnosis-related group). Hospitals were strongly

incentivized to reduce length-of-stay (LOS) and shift more care to the outpatient settings. Although never intended to impact primary medical care, there were many downstream consequences. Expectations for inpatient work increased including the need to be present in the hospital more frequently and for longer periods of time. Simultaneously, requests for ambulatory care expanded resulting in many generalist physicians dropping their hospital care and focusing on their practice.[67,68] This created a space that will later be filled with the establishment of hospitalists in 1996.[69] The new DRG-based payment system, as intended, stimulated the continued rise of managed care which furthered the accepted use of the terms, "primary care," and "PCP" (primary care practitioner or physician).

When pondering advocacy for change, we usually think about new legislation, but occasionally it only takes a new interpretation of old regulations. That's what happened to payment for primary medical care services in 1984. Traditionally, patients paid a fee to their local general practitioner for whatever services they received. The fees were set by each practice and usually corresponded to what was affordable in the local community or neighborhood. Often, there were sliding scales to address different needs and even occasional barter. With the arrival of Medicare, Part B, a third party, CMS, set fees and paid accordingly. By 1984, other insurers in some states, had also begun to cover office visits. Concerns about fraud arose, especially after identification of some abuses in high cost specialties. The result was a re-interpretation of Medicare fraud guidelines such that if one was a participating physician in Medicare (i.e. accepted their fees and payment), then all patients must be charged the same for the same service regardless of insurance coverage.[70] Practically speaking, this ended most sliding scales, put self-pay patients, (i.e. not or under-insured) at greater financial risk, standardized fees, separated financial need from charge considerations, and disrupted doctor-patient relationships at the local level. Neighborhood-based and variable fee-for-service (FFS) became a standardized FFS managed by third party payers, setting the stage for the move to fee-for-documentation (FFD) of service in 1994. Insurers were now inside primary medical care practices. They were soon followed by regulators with the passage and implementation of CLIA from 1988-90.[71] These regulations sought to standardize the quality of office-based laboratory work, a good intention. The unintended result was the loss of many routine practice-based tests and associated income or successful compliance but at increased expense. The soils of primary medical care were beginning to erode and new plants, third party payers and regulators, were appearing inside the practice. Industrialization came next.

Industrialization arrived dressed in the dignified clothes of quality improvement, something seriously lacking in the traditional general practice. It commenced in 1986 with the National Demonstration Project on Quality Improvement in Health Care,[72,73,74] a project developed by Berwick and Godfrey along with experts from multiple large industrial corporations as a test of

the applicability of industrial quality improvement processes, including Deming's PDSA (plan-do-study-act) cycles,[75] in health care settings. Twenty-one health care organizations, mostly hospital systems, agreed to participate. Most of them demonstrated some improvement, and their success led to the founding of the Institute for Healthcare Improvement (IHI) in 1991.[76] IHI became a major source for expanding and disseminating the tools of TQM (total quality management),[77] CQI (continuous quality improvement),[78] and PDSA cycles to health care organizations, including primary medical care. The latter was especially poignant since none of the original NDP on QI projects involved primary medical care and general practice. The assumption that "primary care" was just another health care delivery service and the absence of a clear understanding of the complexity of generalism paved this road for a good intention that inadvertently began the industrialization and continued erosion of general practice. The systematic utilization of linear, mechanistic tools works well in appropriate industrial-like settings and spotlights what is easily measurable, one measure at a time. Inappropriately applied in generalist settings based on managing undifferentiated complexity, they disrupted, in morally distressing ways, the multi-dimensionality of general practice.[79]

The electronic medical record (EMR) arrived just in time to give this form of quality improvement a boost.[80] The Regenstrief Institute had developed a prototype electronic medical record based on Weed's problem-oriented medical record in 1971 with the long-term goal of improving communication, tracking care, and practice improvement.[81] There it waited for portable technology to catch up. It did, in 1981, with the appearance of the first personal computer by IBM.[82] Only ten years later, in 1991, the IOM published its report advocating computer-based medical records which became standard in most practices within the next twenty years.[83] The EMR turned out to be an easier means for third party evaluations of care, especially for billing, quietly altering the purpose of clinical documentation from a focus on care to attentiveness to revenue and liability. Trust in an unregulated competitive free market produced a resultant lack of interoperability across a plenitude of products which became a persistent problem in the United States.

The voices of generalism and primary health care were present but, too often, lost amidst a fragmented identity, hidden within their respective disciplines or segregated care models. The Alma Ata hope of integrating public health and primary medical care resurfaced with the IOM publication of the 1983 COPC (community-oriented primary care) conference proceedings but found receptor sites only in "protected" FQHC and Indian Health Service practices.[84,85] Family practice researchers and clinicians at the University of Western Ontario in Canada developed the patient-centered clinical method in 1984, the first fully articulated description of the generalist craft, and the only one to demonstrate effectiveness in outcomes of care.[86,87,88,89] But it wouldn't find its way into general internal medicine and general pediatrics. The three

generalist disciplines remained tightly tied to their respective specialty traditions and their respective journals. This happened again with the development of evidence-based medicine (EBM) by general internists. Named by Eddy in 1990 in the context of guideline development,[90] elaborated by Guyatt and Sackett at McMaster in 1991 in the context of medical decision-making,[9192] and organized within the Cochrane Collaborative in 1993,[93] EBM and its proponents sought to stop what didn't work and bring science to the craft.[94,95] Shaughnessy, Slawson, and Bennett, within the world of family practice, noted the important distinction between evidence that demonstrated improvement in patient's lives (POEMs) and that which only changed disease parameters (DOEs) and highlighted the need for generalists to become information masters.[96,97] These distinctions remained hidden inside family practice allowing specialty-based disease-oriented evidence excessive influence on future guidelines.

The period of wave 1 also witnessed the end of the "cold war" with the Reykjavik Summit in 1986 and the fall of the Berlin Wall in 1989.[98] This opened the gate for international free trade and an expansion of neoliberal economic ideas, reinforced with the election of Bill Clinton as United States president in 1992.[99,100] With his election came continued corporate expansion and a rapid rise in managed care from 1991-93 partly in response to proposed health care reforms.[101] The reforms never happened, but managed care stayed along with new language. PCPs were now "gatekeepers" and "providers" and patients were "consumers." And behavioral health, an integrated part of many family practices, was carved out by insurers and assigned to designated behavioral health providers.[102] This first wave of incremental erosion opened and closed with "carve-outs," e.g. Ryan White Clinics and behavioral health providers, nibbling on the comprehensiveness of generalists with an additional assist from the new specialty of emergency medicine in 1989 and the initiation of emergency department access restrictions for generalist physicians.[103] Insurers, regulators, industrialization, the EMR, and consumerism were now inside primary medical care practices lacking a shared identity. The scope of care was eroding, and the clinical workforce wasn't expanding enough to meet rising needs. The stage was set for accelerated disruption of general practice and primary medical care.

Wave 2 - 1994-2009 - Accelerated Disruption through Documentation and Accountability Data

The prevailing winds got even gustier with Clinton's version of neoliberal economics which promoted more international free trade and globalization[104] including the signing of the North American Free Trade Agreement (NAFTA) in 1994[105] and the formation of the World Trade Organization in 1995.[106] His administration slowed down, but didn't stop, government downsizing and maintained aggressive deregulation and corporatization with the added power of information technology and its tools of measurement and documentation and an abundance of accountability data. Outcomes based education with its emphasis on standardized

outcomes' testing[107] and the charter school movement originated in 1994[108] and illustrated this new power in the field of education. For primary medical care, it took the shape of a Medicare payment modification.

A tidal wave of change broke upon the shores of primary medical care in 1994. The gap between generalist and procedural specialist incomes had continued to widen, and internal medicine specialists became especially vocal in calling for more recognition of their cognitive skills and work. CMS looked to widen its investigation of potential fraud and sought even more standardization of the FFS payments. These two independent sets of concerns found common ground in the Harvard-developed resource-based relative value scale (RBRVS) payment proposal.[109,16] Medicare adopted it in 1992, but widespread implementation and acceptance by private insurers didn't happen until 1994.[110] Fee-for-service (FFS) kept its name but had really morphed into fee-for-documentation (FFD) of service. The era of ambulatory coding and auditing and its associated administrative infrastructure skyrocketed. Payment was now based on work relative value units (wRVUs) which were determined from documentation in the clinical record.[111] These same wRVUs also became a measure of productivity and basis for most compensation schemes. The EMR found its purpose as a billing documenter. Documentation took center stage in the primary care medical practice and workflow changes followed. Payment for primary medical care was completely severed from its connection to community or patient need and now joined to the capacities of insurers and employers. When I started independent practice in my hometown in 1981, patients paid $15-20 for an average visit. That same visit costs $150-200 today. Patients still pay $15-20 in the form of a co-pay while insurers pay the rest unless you have the misfortune of your medical record designating you as self-pay or if you have a large deductible. It was no longer clear who primary medical care was primary for. Regarding the original intent to close the cognitive and procedural income gap? It widened further because of decisions made by the American Medical Association's Specialty Society Relative Value Scale Update Committee (RUC), a group of 29, mostly specialist, physicians who set the relative values. The tiering or segregation of primary medical care based on insurance type and related disparities also got a boost from the 1996 Health Centers Consolidation Act which consolidated and reauthorized funding mechanisms for multiple community health programs including FQHCs.[112] The wholeness of health and generalism was purchased in documented fragments and delivered in separate systems of care.

The emphases on deregulation and corporate growth brought joy to the board rooms of the pharmaceutical industry with currents of trouble flowing to primary medical care. In 1997, the Food and Drug Administration (FDA), in another example of the power of regulatory interpretation, relaxed the regulations on television drug advertising reacting to protests from both consumer groups and pharmaceutical companies.[113] This happened just as the Google

search engine appeared on September 15, 1997. With the public raising of unrealistic expectations, patients, as consumers, began pressuring their primary care practitioners for advertised drugs and perceived new ailments. The media entered the clinical encounter. Not coincidentally, 1997 was when Purdue Pharmaceuticals initiated their campaign for treating non-cancer chronic pain with their drug, Oxycontin,[114] the beginning of what would become a major opioid epidemic in twenty years. The emergence of this epidemic was accidentally boosted by the new 2001 JCAHO (Joint Commission on Accreditation of Healthcare Organizations) standard on pain control mandating pain measurement and calling it the fifth vital sign pushing clinicians to treat pain more aggressively.[115] Three years later, in 2000, came new drug sample regulations with requirements for packaging and dispensing medicines at the point-of-care.[116] Intended to assure quality, safety, and patient education, it also increased the burden and thus the availability, of using drug samples in many primary medical care practices. Meanwhile, "big pharma" and specialist-led guidelines accelerated a national trend towards medicalization and overdiagnosis which also increased the number of medicines prescribed.[117] In 2000, the unlabeled use of antipsychotics in children and adolescents for "disruptive behavior" and perceived learning difficulties in structured classroom settings dramatically rose.[118] In 2001, the LDL cholesterol level considered abnormal was lowered[119] followed in 2004 by a lowering of when drug treatment should begin.[120] In 2003, the levels considered abnormal for both blood pressure measurement[121] and fasting glucose were lowered.[122] The boundaries of normality were shrinking and shifting more burden and cost onto the health care system and into the offices of primary medical care without patient-oriented evidence of their overall benefit. Joy was slowly leaving general practices. On the world stage at this time, September 11, 2001, terrorists from a middle eastern group, al Qaeda, attacked the United States, initiating a continuing "war on terror" and creating a new political normal for Americans.[123]

Technology innovation advanced unabated. Mobile flip-type phones came in 1996[124] and smartphones in 2008 augmenting the cult of individualism and the rise in consumerism.[125] The latter manifested in many hospital systems as advocacy for "patient-centered care," a program developed and disseminated in 1994 through Picker and Commonwealth foundations with emphasis on patient engagement and input which resonated well with the individual and consumer focus.[126] "Patient-centered" came to mean a way of service delivery and not the patient-centered clinical method. The Pew and Fetzer foundations offered "relationship-centered care" that same year, but the cultural soil was less receptive.[127,128] These powerful forces energized a synergy of changes that began consuming traditional general practice – like invasive species. Anticipating the growth of EMRs and information technology, congress passed the Health Insurance Portability and Accountability Act (HIPAA) in 1996 seeking to protect insurance coverage with change or loss of job (portability) and protecting health data integrity,

confidentiality, and availability.[129] Over the sixteen years of this wave two period, HIPAA coalesced with the 1994 RBRVS payment model, the EMR as billing documentation technology, wRVUs as a measure of productivity, and the 2009 ARRA (American Reinvestment and Recovery Act) and HITECH (Health Information Technology for Economic and Clinical Health) Acts establishing EMR meaningful use (EMR MU) goals and criteria.[130] Combined, they assured the presence of EMRs in most general practices and health systems by 2010. Even the economic recession of 2008 couldn't slow these developments. The EMR not only reconfigured the nature of work, information, and knowledge within the general practice, but, in the shape and presence of a screen, became a third agent in the room with the clinician and patient.[131,132] The new technology, along with its supportive policies, facilitated the surge of quality improvement (QI), a particular industrial single-strand, disease-focused QI, unintentionally promoted by the 2001 IOM report, "Crossing the Quality Chasm,"[133] and then reinforced when the specialty boards, in 2004, required performance improvement (i.e. QI) activities as part of maintenance of certification (MOC).[134] The earlier managed care behavioral health carve-out, the EMR, QI, , and individualistic consumerism diminished the "family" in general practice through loss of family charts, genograms, and even whole families in a single practice. Reductionism and a disease-focus was embedded into the inner workings of general practice and primary medical care. That same "Crossing the Quality Chasm" report also recommended "patient-centered care," the consumer version and not the generalist craft one, as one of six goals for a health system.

Mid-life, non-Hispanic white overall mortality began to rise in 1994, specifically from deaths due to suicide, cirrhosis, and opioids, although it wouldn't become widely known until 2015.[135] Meanwhile, the diabetes epidemic began to accelerate on the rate curve in 1995.[136] These pooled with the continued rise in life expectancy and obesity and associated co-morbidities to make chronic illness care a major issue. The chronic care model (CCM) emerged between 1998 and 2001 to help address these escalating concerns.[137,138,139,140] The focus on chronic illness intensified over the next two decades. The relentless promotion of the CCM, which inadvertently narrowed the focus of adult primary medical care to being chronic disease managers rather than generalist healers integrating care across acute illness and concerns, multiple chronic illnesses, prevention, mental health, and family care, acted as another "carve out" by care-type. It shifted attention and availability away from care of children in family practice,[141] from acute care in family practice and general internal medicine, and furthered their isolation from general pediatrics.

Needs for general practice care kept growing, but could the workforce keep up? The Robert Wood Johnson Foundation sponsored a bold national Generalist Physician Initiative in 1994 to specifically increase the number of American medical students and residency graduates

entering generalist careers. Fourteen medical schools were funded over a six-year period. Unfortunately, it did not succeed in increasing the number of generalist physicians compared to a control group of medical schools.[142,143] The culture of specialization was too strong[144] and no modifications were made to the heavily mathematics and science-oriented pre-medical requirements for admission to medical school. In 1997, the percentage of international medical graduates entering primary care residencies shifted from 5-11% to 20-40% related to the decline in US medical graduates entering primary medical care.[145] The Balanced Budget Act, passed that same year, included huge Medicare cuts and introduced Medicare Advantage plans. It also contained multiple changes to Medicaid and announced the SCHIPS (State Children's Health Insurance Program) program. More importantly for this story, the act significantly reduced the Medicare-associated medical education funding which pushed academic generalist departments to fill resulting budget gaps with grants and clinical revenues, further jeopardizing the medical school environment for generalists.[146,147] Hospitalists "officially" arrived in 1996[69] and, over the next decade, resulted in many internal medicine residents who would have become general internists, becoming hospitalists instead. The culture of specialization got another boost in 2003 with completion of the human genome project[148] and prospects for precision, personalized (not whole person) medicine. The generalist workforce didn't keep up.

Into this vacated access space arrived the retail clinic[149] and urgent care centers.[150] Urgent care, designed to conveniently address minor emergencies and acute concerns, first appeared in the late 1970s, but didn't find a market until the early 1990s and then surged in growth after 2000. The first for-profit retail clinic, QuickMedx, opened in Minneapolis in 2000 and then became Minute Clinic managed by and located within CVS pharmacies. Competitors soon followed. Retail clinics, usually staffed by nurse practitioners, offer immunizations, preventive services, and walk-in care for minor acute conditions. Reacting to the payment and regulatory changes and rising overhead expenses, several new innovative models of generalist physician care also surfaced. The first concierge practice was created in Seattle in 1996 by general internists, Drs. Maron and Hall,[151] and the first micropractice, a low overhead model developed by family physician, Dr. Gordon Moore, premiered in Rochester, New York in 2002.[152] These two models were combined in the direct care model, introduced in Seattle by Dr. Bliss and colleagues in 2005.[153,154] New species of primary medical care were emerging.

As all this change materialized, the many professional organizations representing the different disciplinary constituencies of primary medical care were not silent! Recall the problems with GP 1.0 - lack of transparency, inability to assess quality, lack of integration. The EMR, consumerism, and QI were remedies they advocated and supported. The general practice/specialist widening payment gap? Primary medical care advocates supported

RBRVS/FFD and the valuing of cognitive work. All good intentions. Unfortunately, corporate thinking and reductionist processes were allowed to shape the means of enactment and unintentionally devalued the whole of generalism. The IOM 1996 consensus study report, "Primary Care: America's Health in a New Era," acknowledged the troubled state of primary medical care, modified its earlier definition of "primary care," and proposed 31 recommendations and an implementation strategy.[26] Many of these suggestions served as a roadmap influencing changes over the next twenty years including new models of care and QI initiatives. The timing, however, was unlucky. In 1995-6, it appeared as if payment would switch to capitation, and the report accepted that prognosis. Payment didn't change making many of the recommendations unworkable, and primary medical care's condition continued to worsen.

Family practice's organizations convened a Keystone III Conference at Cheyenne Mountain in Colorado for a public examination of the current situation in family practice thirty years after its founding. Three generations of family physicians were present.[155] Attendees raised disturbing warnings about the future of family practice as well as surfaced some intergenerational tensions.[156,157,158,159] The same family practice organizations quickly responded and generated the Future of Family Medicine Report in 2004 recommending and then financially supporting initiatives to mobilize and transform clinical practice, residency education, and research within the next decade.[160] The name was changed from "family practice" to "family medicine," and the new clinical practice was christened the "personal medical home" committed to delivering a defined "basket of services."[161] Two years later, in 2006, the American College of Physicians introduced the "Advanced Medical Home,"[162] raising tensions and more confusion within the larger general practice arena in the United States.

Finally, the separate professional organizations consolidated, pulled by business and payors, and the PCPCC (Patient-Centered Primary Care Collaborative), around a new model of care they all agreed to title the patient-centered medical home (PCMH) and issued a descriptive Joint Statement in 2007.[163] This was almost immediately followed by the AAFP's National Demonstration Project (NDP) of the feasibility of the PCMH,[164] the development and implementation of criteria by NCQA for PCMH recognition with special emphasis on technology and a checklist approach,[12,13] and multiple PCMH demonstration pilots, mostly at the state level focused on engaging insurers to highlight the critical importance of payment reform.[165] The AAFP NDP demonstrated feasibility but also shared early warnings about burden, cost, readiness, and the importance of practice leadership development.[164] With the PCMH, GP 2.0 was officially born, and primary medical care's identity was a service model, not a discipline and craft. Wave 2 thunderously came ashore in 1994 with the increased documentation for RBRVS

payment and receded in 2009 with the strong undertow of increased documentation for meaningful use. At the end of 2009, it was really hard to be GP 1.0.

Wave 3 - 2010-2020 - Transformation Happens

Wave 3 came ashore in 2010 just as the influenza H1N1 pandemic was ebbing.[166] After thirty years, the dominant cultural, political, and economic zeitgeist was firmly in place and reinforced with the Supreme Court's direct restoration of corporate financing in elections and indirect reaffirmation of corporate personhood through their 2010 ruling in Citizens United versus Federal Election Commission.[167] Health care system consolidation through acquisitions and mergers continued at a faster pace. With the near non-viability of small to medium size independent general practices,[168,169] these expanding health systems accelerated their acquisition of the practices.[170,171] 2010 was the year when the majority of primary medical care clinicians became employees. Multiple resistances, however, were emerging. Partly triggered by the public surprise of the 2008 economic recession and the election of Barack Obama as the first African-American president in the United States, America's "original sin" of racism reawakened. Even more potent were the impacts of the prevailing winds of neoliberal Reaganomics and Clintonomics including widening disparities and the exponential acceleration of change fueled by economic deregulation and corporate globalization. Opposition arose on both the political right and left beginning a decade of widening polarization. The "Alt-Right" launched in 2010 with publication of the webzine, *The Alternative Right*[172] and Occupy Wall Street, a follow-up from the 1999 Seattle World Trade Organization protests, began in 2011.[173] A decade of discontent lay ahead.

The point of no return for general practice and primary medical care officially arrived with passage of the Patient Protection and Affordable Care Act (PPACA) in 2010.[45] Primarily an incremental effort to assure that more Americans had affordable health care insurance, the PPACA also implemented multiple measures to manage the rising cost of health care, and primary medical care, in the form of the PCMH, played prominently in those plans. The PPACA set in motion, through the newly established Center for Medicare and Medicaid Innovation (CMMI), a decade of national PCMH demonstrations that included an incremental series of payment models,[174,175,176,177,1778179,180,181,182,183,184,185] along with the development and implementation of accountable care organizations (ACOs) and reinforcement of EMR utilization as the three stages of Meaningful Use rolled out in 2011, 2014, and 2018. **Transformation to GP 2.0 accomplished**. Primary medical care had gone from many small subsistence practices to an economized, standardized, and monetized provider-based primary care service model. GP 2.0, as of 2015, included the presence, either physically or hovering nearby, ghost-like, insurers,

regulators, coders, auditors, EMRs and their screens, consumers, media, and employers along with industrial and reductionist processes.

The much hoped for PCMH-related payment reforms turned out to be painfully incremental. The first demonstrations were essentially FFD with a small care management addition that proved to be less than the cost to implement care management. This was followed by 2015 legislation leading to the alphabet soup known as MACRA/MIPS/APMs (see glossary) which would end up not beginning until 2019.[186] Emphasis was still on FFD but with a heavy dose of pay-for-performance (P4P) on single condition measures from HEDIS consistent with industrial QI initiatives, and shared risk.[187,188] This payment complexity came with a high administrative burden. Even before being fully implemented, CMS rolled out a new demonstration, Primary Care First, to begin in 2021 as a blended payment model finally offering a population-based payment portion and promising less burden but still heavy on P4P and FFD.[189] More worrisome were the evaluations of the PCMH demonstrations and pilots. The PCMH cost more to build than anticipated[190,191,192,193] and didn't generate sufficient savings to cover those costs or reliably and significantly improve quality of care measures.[194] Even more seriously, the PCMH, was accompanied by a disturbing rise in moral distress and burnout, first noted in 2011 and trending upward over the decade to exceed fifty percent. This was associated with higher staff turnover and rising discontent from both patients and clinicians about the care happening in those practices.[23,195,196,197,198,199,200,201,202,203,204,205] In addition, the percentage of the clinical workforce in primary medical care continued its decline,[206] approaching thirty percent in 2020. Had the generalist craft withered with the transformation? In 2016, the original seven organizations who developed and signed the 2007 PCMH Joint Statement and, again working through the PCPCC (now the PCC or Primary Care Collaborative since 2019), released the Shared Principles of Primary Care along with 347 additional signees. The seven principles, person and family centered, continuous, comprehensive and equitable, team based and collaborative, coordinated and integrated, accessible, and high value, bring together much of what was best about the PCMH.[207] Missing here and in a recent proposal on high value care[208] was the generalist craft that makes them possible.

Resistance and innovation rose into this situation. Direct care practices, although small in overall numbers, spread across the country.[153,154] Most of these clinicians, and their patients, were seeking relationship-centered care and application of the generalist craft. Entrepreneurs, seeking the same, but building upon the new technologies and lessons from the PCMH, especially the use of collaborative team-based care, pioneered new models of primary medical care with help from investors. Iora Health, Inc. used a contract payment model and invented a unique approach partnering physicians and specially trained health coaches to both deliver high value care and generate practice joy.[209] Omada Health, Inc. created a digital health platform for

delivering self-management to patients with hypertension, type 2 diabetes, anxiety and depression.[210] Both opened in 2011. On a potentially much larger scale, in 2018, Amazon, Berskshire Hathaway, and JP Morgan Chase combined investments to create Haven Healthcare. Initially focused on employee health care, they have the larger goal of transforming health care delivery, especially primary medical care.[211] Haven Healthcare will certainly take advantage of their unimaginably vast data sets about those who interface with their businesses. Big data also gained in prominence with a growing emphasis on population health and what came to be called social determinants of health.[212] This effort received a nudge from the IOM's 2012, "Integration of Primary Care and Public Health," their latest attempt to re-imagine COPC and primary health care in the context of the PPACA,[213] and a big push from the development of ACOs.[14] This was the situation when SARS-CoV 2 washed ashore in the United States in January, 2020 bringing an end to wave 3 and opening a space for the next version of general practice transformation.[47]

Joel D. Howell, in 2010 in *Health Affairs*, astutely wrote, "The essential point is that 'primary care' was born out of tension with other forms of medical care."[214] Forty years ago, the prevailing cultural winds altered and the newly planted seeds and macro-forces of government and corporate power and means, accelerating technology innovations, and demographic shifts coalesced with the improvement efforts of primary care organizations and others. Those efforts were meant to overcome the problems of traditional general practice while raising the value and support of primary medical care. "The other forms of medical care" proved vocal and powerful, and, until 2007 and the PCMH, generalist practice lacked a sufficiently clear and unified voice to coherently respond. Nonetheless, a new primary medical care infrastructure was built out of which a more resilient and robust GP 3.0 can be developed. Table 4 suggests some possibilities. This infrastructure includes multiple encounter modalities for relationship development and better engagement with patients and community agencies. It has information technology for earlier identification of disparities and the means for connecting and co-creating communities of solution as issues are detected. Payment reform that avoids fragmentation of services and separates documentation from billing could transform the EMR into a person and family centered clinical information system. That, along with eliminating the industrial processes and measures that disrupt whole person, relational care might refresh the air supporting the practice of generalism. Space for GP 3.0 transformation was opened by COVID-19. Will general practice and primary medical care heed the lessons of the past forty years?

Lessons and Implications

A few case examples from the historical story might aid in highlighting several essential lessons. Why, despite so much evidence of the importance of payment reform for primary medical care transformation and so much evidence of the failures of FFD, did the change not happen? The answers are complicated, but the story shared here points to 1996 and 2008 as pivotal years for addressing this question. With the seemingly paradoxical acceleration of managed care plans following the failure to implement the Clinton health care reforms, payment for primary medical care did begin to rapidly switch toward capitated payment schemes in 1995-96. This switch, however, was widely associated with the new role of "gatekeeping" and the public, energized with the spirit of consumer choice, successfully protested the imposition of the gatekeeper role. They also raised questions about capitation's potential incentive to control demand through access strategies or, at worst, for practices to avoid caring for patients with more complex challenges. Health systems were also struggling to rapidly adjust to the new payments and joined their voices with the protest.[215,216,217] Capitation was soon gone and deeply linked with the gatekeeper role. Even today, the word, capitation, is rarely used, replaced with terms like prospective payment and global payment. This could have been anticipated and prevented. Primary medical care doesn't have gates. When performing well, it is the quintessential essential service with the front door always open and the back door to the larger health care delivery system also always open for the ten to twenty percent of situations agreed to after passing through a generalist - patient relationship with collaborative decision-making. Appropriate transparency and accountability measures can mitigate the downside concerns with capitation.[218] Remembering purpose and identity and a tighter alliance between primary medical care and patients might have prevented this scenario. An opportunity for payment reform arose again in 2008, the first year following release of the PCMH Joint Statement. This statement represented the first time the multiple clans of the primary care disciplines reached consensus on policy, and the effect was powerful. The seventh principle in that statement noted the fundamental importance of payment reform. Unfortunately, the clans couldn't agree on what that reform should be.[219,220,221] The PCMH was enacted in the 2010 PPACA but not the needed payment reform. Another critical moment lost to cross-disciplinary feuding.

Mentioned throughout the story, but often incidentally and in the background, is the steadily declining generalist workforce as a percentage of the overall clinical workforce. Both the national and international data suggest that for primary medical care to provide its high value of better health, better care experience, at better cost, and greater equity, the generalist workforce needs to represent forty to fifty percent of the overall. In 1980 it was around thirty-six percent. Forty years later, the generalist workforce approaches thirty percent, and throughout this time, the demographic changes noted were steadily increasing demand. Budget cuts to generalist training, medical student debt, widening generalist/specialist income

gaps, and low percent spend on primary medical care are several of the events and trends contributing to the decline.[222,223] Family medicine, internal medicine, and pediatrics never agreed to a unified workforce plan, and it didn't happen. Having an insufficient workforce consistently played a critical role in primary medical care's being unable to adequately meet expectations. On the bright side, the generalist workforce has changed in exciting ways that align more with the general population for which they care. Now, there is a much higher percentage of women, more international medical graduates, more part-time clinicians, and the addition of advanced practice clinicians including nurse practitioners and physicians' assistants.[224] Minorities, however, continue to be under-represented. Implementing high value primary medical care in the future will require addressing these issues of payment reform and adequate workforce and both will necessitate a common generalist voice.

Lessons

I recognize four critical lessons with implications for implementing a future of higher quality general practice and primary medical care. The first is ***underappreciating the power of "other forms of medical care"*** such as hospitals, specialty traditions, the pharmaceutical industry, insurers, and being lumped with all other physicians. Each of these named others have booming voices and clear messages and are valuable to a better health care delivery system. Too often, however, "primary care's" multiple voices get lost in a cacophony of mixed agendas, narrow tribalism, or become co-opted within one of the other forms of medical care. Which implicates the second lesson, ***general practice's lack of a political, economic, social, scientific, and purposeful identity***. The current fragmented confused identity divided amongst disciplinary clans weakens the voice and influence of generalism in health care. A critical aspect of this confusion appears to be the public failure to differentiate the service delivery vehicles, the primary medical care models such as PCMH, retail clinics, urgent care, digital platforms, and direct care practices, from whom and what is driving them, clinicians practicing a generalist craft. The craft is the source of primary medical care's value. One can build a primary medical care system with no generalist craft; the Soviet Union did between 1970 and 1990. They revised the Semashko model to emphasize specialization in primary outpatient care with first contact clinicians in the role of "dispatchers" to specialists in polyclinics. The approach disastrously failed to deliver value.[225,226,227]

Underappreciating the power of toxic means is the third lesson. These toxic means include the tools of piecemeal payment, reductionism, standardization, segmentation, and hamster wheel productivity measures. All of these undermine the work and purpose of generalism. Finally, the fourth and most often neglected lesson is ***underappreciating the importance of language***. Words matter; they create expectations, categorize, and organize. What changes when

clinicians, those who help others resume their upright place in life after being flattened by sickness, become "providers," just another entity offering a commercial service?[228] What happens when patients, those reclined by sickness request help in a sacred space seeking return to person status, become "consumers" or "customers" in a market place? What happens when clinicians are instructed to be "evidence-based," to base all their clinical judgement on imperfect and incomplete scientific studies rather than to be evidence-informed. Subtle? Not when practicing the experientially and scientifically-grounded craft of generalism.

At the beginning of this story, I asked you to watch for the unanticipated harms of well-intended policies implemented in the spirit of incremental compromise. Did you notice? Did you discern how incremental compromise often worked? The initial intent and core premises are accepted but then get implemented with toxic means and language changes, leaving in place barriers like inadequate workforce or inappropriate payment methods that prevent successful implementation of the original intent. Remember.

Implications

The implications for implementing high quality primary medical care follow directly from the lessons (see Table 5) and from paying attention to the interplay over time of the macro, meso, and micro forces described in Table 6. Macro-forces are those operating at the global and national levels. Technology innovation and globalization (partly as government and corporate mental models and consumerism) and demographic shifts were powerful tides in the story already shared and are likely to continue, although the SARS-CoV-2 global pandemic may provoke shifts in some. Climate instability didn't directly appear in the historical story; however, several of the infection epidemics and the increasing human migrations are related, and this macro force will have even more effect going forward. These macro-forces are the environment in which high quality primary medical care will need to fit.[229,230,231] Meso-forces are those functioning at the health care delivery system level. These forces also require adaptation from primary medical care, and, unlike the macro-forces, are somewhat changeable through policy initiatives and regulatory interpretation. [232,233] The everyday world of general practice is the micro level where the macro and meso exert their tidal forces.

Meso or health system level policy must strategically appreciate and account for the macro. Appreciation begins with asking, "Have we accounted for the dominant prevailing forces and powers and their ability to subsume and co-opt our ideas in troubling ways?" Consider the following three suggestions when answering this question. ***Beware noxious means***. Specifically, immediately implement business models that support and promote generalist, whole person, relational care over time and cease current models that carve up care into

billable pieces and/or based on performance of reductionist outcomes.[218] Separate billing and payment from documentation so the latter is freed to focus on clinical care. In addition, remember the lessons of capitation and the need for accountability and transparency. Then, end policies that fragment care, add administrative burden, and diminish investment in relationships. Work to remove vestiges of specialism, reductionism, corporate and industrial processes from generalist practice and fervently act to prevent any new ones from gaining access. These toxic means include RBRVS documentation, industrial QI processes, single disease metrics (e.g. most current HEDIS measures), and care carve-outs. In exchange, begin development and pilots of purpose improvement[234] processes and metrics[235,236] appropriate for generalist care.

Second, ***explore the ripples***. One approach to this is to work four questions. What are the words? Pay attention to the word choices and potential hidden meanings and what's not being said. What are the numbers? Check out the assumptions, the choices, and, again, what's missing. Who benefits? This question assesses the power dynamics. Watch where the money goes. What else? Scenario planning and simulation modeling are helpful here in identifying some of the potential unanticipated consequences. Finally, ***words matter***. Change the language of generalist care to one more accurate, relational, and meaningful. Language is a powerful tool used by the dominant culture to co-opt and homogenize the values of others. Choosing our words wisely is one way of speaking truth to power; own your speech.

Meso policy must also appreciate and account for the micro, where the care actually happens. Here the questions are, "How does the policy enhance general practice and avoid harm? Does it strengthen the core and heart of the generalist craft?" These were the most ignored questions over the past forty years and point towards the most important lesson and implication. ***Establish a unified identity as generalist craft and discipline***. I suggest creating a new and ancient discipline called Generalist Medicine or Health. Yes, only one discipline![237,238,239] Being composed from different disciplinary traditions, primary medical care has failed to discern that generalism, the key to its value, is its own discipline with very different skills, attitudes, wisdom, and purpose, and that it provides a critical balance to the strengths and values of specialism. This new single discipline would have a common educational pathway for clinician training with fellowship tracks for focusing on the care of specific populations such as infants and children, adults, women, elders, and vulnerable populations. It would be a transdisciplinary educational program training the future generalist ensemble of clinicians for primary medical care. Generalist Medicine, by definition, isn't a specialty, but it could have its own governing board and certification processes. This recommendation will necessitate, over time, a dissolution of family medicine, and the separation of general internal medicine and general pediatrics from their current disciplines which already rarely advocate in the spirit of

generalism but more in support of their larger specialty members. This won't be easy. I've shared the big plot for the historical story of the past forty years, but there are at least six sub-plots for general internists, general pediatricians, generalist osteopaths, family physicians, nurse practitioners, and physicians' assistants, each with a slightly different experience and story. Multiple transitional steps are available beginning with creation of a cross-disciplinary council that would oversee the transition and recommend unified policy plans. It could begin coordinating strategy and defining and mapping the territory of generalism. Pay special attention to and build on experiments already underway in interprofessional training[240,241] and the collaborative work occurring in several undergraduate primary care clerkship curricula. Convene organizational arms of the multiple generalist disciplines and begin crafting a shared generalist curriculum that could be rapidly disseminated to existing generalist training programs and serve as a framework towards a future generalist medicine residency. What I'm suggesting is certainly provocative. What isn't controversial is the need for generalism to have a common voice going forward if high-quality primary medical care is to be implemented.

I also recommend creating a new National Institute of Generalist Health and Medicine to provide the basic and clinical scientific support for this discipline. Primary medical care desperately needs a generalist research platform and agenda to better define and understand, assess, and improve its care. PCORI (Patient-Centered Outcomes Research Institute), AHRQ (Agency for Healthcare Research and Quality), and current NIH centers are important and serve critical roles but don't serve the purpose of advancing the knowledge base of generalism. This new NIH Institute will ideally represent almost half of the national clinical workforce. To achieve that latter percentage will require substantial workforce expansion efforts to assure sufficient access to meet the growing primary medical care needs. With the generalist craft assured, it becomes easier to innovate and experiment with primary medical care service models. Going forward, post-COVID-19, I encourage exploring multiple service delivery options including revised PCMHs. Others include innovative models such as direct care, health coach teams, behavioral health integration, digital platforms, and community ownership such as the Southcentral Foundation Nuka System of Care in Alaska.[242] It will also be important to improve governance approaches in larger health care delivery systems that support greater agency than is currently the case. There are many ways to deliver generalist care.

General practice is the medical care aspect of primary health care, a generalist craft seeking, through relationship, to integrate the healing effect and patient-oriented evidence in pursuit of better health.[243,244,245,246,247,87] Primary medical care, the delivery engine, defines an important set of services within the health care system. It's primary; it comes first and is the entrance to the larger system. The Shared Principles of Primary Care define important parameters of that care which actuates four key functions. *Bridging* within primary health care and with specialty

care, hospitals, and community services, between the landscapes of sickness and health, and between capacity and burden. *Guiding* people through their sickness journeys towards health. Generalist wisdom has *breadth* and encompasses multiple knowledges; generalists are information masters. Knowing, with *depth*, the particulars of persons, their families, friends, and neighborhoods.[248] These functions are facilitated by the four C's, affirmed in the research of Barbara Starfield, comprehensiveness, continuity, coordination, and first contact access.[249,250,251] The mechanism that makes all this work and produce high value is the effective practice of the generalist craft of recognizing, prioritizing, and personalizing care.[245] Without a strong generalism standing beside specialties, in constructive tension, there is no quadruple aim of better health, better care, better cost, greater equity.

Primary medical care, in many forms, will always be with us; there's inherently a front door to whatever health care system exists. I'm less certain about the more important generalist craft. What I know in my bones as a generalist healer, is the abiding gratitude for the privilege and gift of serving in that capacity and the relationships and powerful stories shared. What I also know, as an anthropologist, is that the generalist craft has been with us since our shaman ancestors painted on the walls of caves and rock shelters from Australia to Europe over 40-50,000 years ago.[252] It's deep in all of our bones but not immortal. It can be lost just as most of Western humanity have lost its intimate sensory awareness of the living world around us, of learning our daily news from the dawn chorus of birds. Generalism must be practiced; it's a discipline.[253,254,255,256,257,258] Who will practice its song? That's partly up to us, and I leave my author role and join you. We are the voices for that generalism.

We are the frontline for a pandemic;
We are there for sniffles, tummy aches, joint pain, and headaches;
We are sense-makers for people with multiple problems;
We are hands for the health of children in their family nests;
We are present for those nearing the end of their lives and for their caretakers;
We are hopeful patience for people suffering from conditions defying diagnosis;
We help folk navigate the bureaucracy at the interface of sickness and livelihood;
We are a caring place for those trapped in emotional distress or prisoners of addiction;
We are ultimately inclusive; we are generalists!
But first, there must be a We!

The key to high quality primary medical care is generalism. The best location for generalism is primary medical care. Carpe diem!

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Table 1: Primary Medical Care/General Practices as Complex Adaptive Systems with Two Predominant Transformations in Self-Organization over Time in the U.S.[9]

Name	Timeline	Attractors/Organizing Values	Fitness Landscape/External Milieu
GP1.0 **Independent Solo**	1910-1969	Relationship & Patient Loyalty Reputation & Place Fee-for-Service with Income Threshold Professional Duty Personal & Family Care Comprehensiveness, Continuity, Access	Neighborhoods Professional Autonomy Rural & Small Towns Doing Ok
General Practice becomes Specialty of Family Practice - Feb. 8, 1969			
GP1.0+ **Independent Small Group**	1969-2010	As above plus: FP Residency Model Practice	Transition Period (see above & below) Decline in Rural & Small Towns Accelerated Rise of Specialism Post-WWII
Transformation to Techno-Industrial Consumer Platform			
GP2.0i **Independent PCMH**	2008-	NCQA Recognition ACO Requirements FFD P4P Metrics Meaningful Use/EMR Personal Care (Hidden)	Consumerism Global Corporate Capitalism Digitization Biotechnology Growth Demographic Tsunami Political Polarization Wealth Inequality Rural Collapse PCMH Transformation/Payment Initiatives Massive Student Debt
GP2.0s **Health System PCMH**	2008-	See above Employer Mandates Compensation Plans	See above Consolidations Corporate Bureaucracy
New Policies Promoting Innovation, Diversity, & Local Scale - 2021			
GP 3.0 **General Practices**	2021-	To be determined...	See Table 6 COVID-19 Global Pandemic

Table 2: Three Watershed Years for General Practice in the U.S.: Riptides of Surprise

Years	What Happened
1981-2	**Conservative Turn** in U.S. with election of Ronald Reagan[27] **Economic Deregulation** accelerates beginning with banking - includes rise in big **mergers & acquisitions**[50] **Income & Wealth Gap** begins widening in U.S.[53,54] **Personal Computers** begin (IBM PC in 1981)[82] **Population Growth** accelerates in U.S. despite lower birth rate since 1970 because of rapid increase in **immigration** (2nd great wave beginning in 1980 - first wave 1890-1930) - associated with flattening of growth in # of children[60,61] **Life Expectancy** rise in U.S. accelerates with increase in **co-morbidity**[62] **Obesity Epidemic** begins with steep rise in rate curve in 1981[63] **Cost of Health Care per Capita** rise accelerates in U.S.[64,65] **Medical-Industrial Complex** named by Relman[44] **Medical Student Debt** rise accelerates with decline in medical school attendance by those from lower SES & under-represented minorities but increase in women[59] **# of FM Residencies** peak with tiny bump in 1994[52] **% U.S. Grads Entering FM** experiences first decline to 10-12% - later bump to 17% in 1996 but rapid return to 8-12% after[59]
1994-5	**International Free Trade** & **Globalization** accelerate with rise of neoliberalism & Clinton administration - World Trade Organization formed in 1995 - ***accelerates all trends from 1981***[104,106] **NAFTA** signed in 1994[105] **Charter Schools** & **Outcomes-Based Education** begin in 1994[107,108] **Mid-life White Mortality** begins rising - suicide, cirrhosis, opioids (not widely known until 2015)[135] **Diabetes Epidemic** accelerates on rate curve in 1995[136] **Managed Care** rises partially in response to Clinton health plan despite not being legislated[101] **Medicare Payment Change** - the world of wRVUs arrives with replacement of fee-for-service by fee-for-documentation[16] **Patient-Centered Care** & **Relationship-Centered Care** advocated - former in "Through the Patients' Eyes" from Picker/Commonwealth Program for PCC; latter from report from Pew/Fetzer[126,127]
2010-11	**Corporate Personhood** reinforced by Supreme Court in Citizens United vs Federal Election Commission[167] **Alt-Right** begins with launch of *The Alternative Right* webzine[172] **Occupy Wall Street** begins in 2011 - follow-up from Seattle WTO protests in 1999[173]

	Patient Protection and Affordable Care Act enacted with rapid impact in multiple areas:[45] • **Payment Reforms** with more emphasis on pay-for-performance re: patient satisfaction & HEDIS measures • **EMR** emphasis - reinforced by EMR Meaningful Use • **ACO** development • **PCMH** promoted with national demonstration projects by CMMI • **Health Extensions** advocated with demonstrations **Traditional GP Business Model** almost non-viable[168,169] **GP Practice Acquisition** acceleration with % independent FM physicians dropping < 50% (Employee-based 58% in 2012)[170,171] **Physician Burnout** becomes news in 2011 with rate of 45.8% with primary medical care/GP especially high[23]

Table 3: Important Historical Events for General Practice in the U.S. since 1981: Guideposts of History

Date	Historical Event	Description/Intention	Implications for GP
1981	**HIV Epidemic in U.S. recognized**[46]	Complex, chronic infectious disease (AIDS) requiring highly specialized treatment. First Ryan White (RW) clinics in 1990 to manage long-term specialized care.	RW clinics first de-facto "carve-out" - harbinger for other complex care situations.
1982	**Title VII FM funding significantly cut**[51]	Section 747 of Public Health Service Act from 1964. High funding for primary care helped develop family practice residencies.	Failure to recover prior funding levels limits future growth of FM residencies - cut again in 2006.
1983	**Medicare Prospective Payment System**[66]	Builds on HMO Act of 1973. Pays hospital set fee based on DRG (diagnosis-related group) - part of larger effort to assure solvency of Social Security & Medicare.	Stimulates hospitals' need to reduce LOS (length-of-stay) & shift to outpatient - increased nature of hospital & outpatient work which leads to GPs leaving hospital. Accelerated rise of managed care. Stimulated general use of terms "primary care" & PCP. Reduced medical education funding.
1983	**COPC Conference proceedings by IOM**[84,85]	Community-oriented primary care model presented - effort to better link public health with GP (horizontal integration)	Will influence development of FQHCs & Indian Health Service but little else.
1984	**Medicare Fraud Guidelines**[70]	Everyone must be charged same for same service if participating physician - addressed identified abuses in high cost specialties	Confusion results in loss of charging based on need; put self-pay patients at risk & disrupted Dr.-Pt. relationships at local level.
1984	**Patient-Centered Clinical Method**[86]	First systematic clinical method for GP craft developed at University of Western Ontario.	Extensive body of research affirming value will ensue but gain only modest traction.
1986	**NDP on QI in Health Care**[74] Leading to... 1991 **IHI founded**[76]	Test of applicability of industrial QI to health care in 21 health care organizations - used Deming PDSA QI approach.	Spotlights what is easily measured & one measure at a time. Disrupts multi-dimensionality of GP. Beginning of industrializing GP.

		IHI (Institute for Healthcare Improvement) created to expand & disseminate.	Will spread from systems to practices, especially as more owned by systems.
1988-1990	**CLIA**[71]	Regulations concerning office-based lab work - sought to standardize quality.	Regulations enter GP - many cease routine office lab tests; others comply increasing expenses.
1989	**Emergency Medicine official specialty**[103]	ABMS approves as primary board (was conjoint in 1979).	Beginning of restricted access to ED for GPs.
1990-1993	**Evidence-Based Medicine developed**[90,91,92]	Named in 1990 (Eddy) with Cochrane Collaborative in 1993 - effort to stop doing what doesn't work & bring science to craft.	FP's highlight difference between POEM & DOE but mostly ignored. Guidelines based on DOEs follows & then enforcement & becomes seedbed for artificial intelligence & clinical decision support systems.
1991	**EMR - IOM Report advocating computer-based records**[83]	Importance of EMR based on Weed's POMR – 1971 Regenstrief prototype - goal to enhance communication, tracking, practice improvement.	Allows 3rd party evaluation of care, changing purposes of clinical note. Implementation via unregulated free market leads to lack of interoperability. Prioritizes billing over clinical.
1991-1993	**Rapid rise of Managed Care Plans**[101]	Response to rising costs & threat of Clinton health care reform. 51% of US enrolled in 1993. Will decline later partly from public rejection of restricted choice.	Creates behavioral health "carve-out" from GP. GP as "gatekeeper." This plus EBM/EMR beginning of end of "family" (genograms, family charts) in GP. Physician as "provider" enters language.
1994-2000	**Robert Wood Johnson Generalist Physician Initiative**[143]	14 Medical schools funded to increase # of medical students & residency graduates entering generalist careers.	Did not succeed in increasing # of generalist physicians over control group. Didn't change attractors for admission to medical school.
1994-1995	**Medicare Payment Change**[109,110,111] (Fee-for-Documentation)	Pay based on wRVUs which are based on medical record documentation - wanted to better reward cognitive skills of generalists.	Documentation now center stage; coding & auditing of clinical record & workflow changes all appear.

		Implemented 1992 but limited diffusion until 1994-5.	Impact hidden by maintaining calling it "fee-for-service."
1996	**Health Centers Consolidation Act**[129]	Consolidates and reauthorizes funding mechanisms for multiple community health programs including FQHCs.	Improves funding for & spread of FQHCs - reinforces "tiered" primary care.
1996	**HIPAA**[17]	Bill to protect insurance coverage when change or lose jobs (portability) & protect health data integrity, confidentiality, & availability in era of EMRs.	Further accelerated use of EMR adding significant burden, expense, & workflow changes.
1996	**First Concierge Practice**[151]	Internists Drs. Maron & Hall in Seattle.	Harbinger for future Direct Care models.
1996	**IOM Consensus Study Report on Primary Care**[26]	"Primary Care: America's Health in a New Era" assesses state of primary care & proposes 31 recommendations & implementation strategy.	Presents new definition which is adopted by most in US & creates roadmap influencing next 20+ years of change especially new models of care & QI initiatives.
1997	**TV Drug Advertising**[113]	FDA relaxes regulations responding to Pharma and consumer groups.	Raises unrealistic expectations at same time Google search engine begins. Patients, as consumers, begin pressuring GPs for drugs. Media enters clinical encounter.
	Oxycontin™ Marketing[114]	Purdue Pharmaceuticals begins campaign for treating non-cancer chronic pain.	Beginning of what will become major opioid epidemic in 20 years.
1997	**International Medical Graduates in Primary Care tipping point**[145]	% of IMG's entering FP residencies shifts from 5-11% to 20-40% - also true for GIM & both related to drop in USMGs entering primary care residencies.	IMG's become growing part of meeting GP workforce needs.
1997	**Balanced Budget Act of 1997**[146,147]	Huge Medicare cuts & beginning of Medicare Advantage, SCHIPS (health insurance for children), Medicaid changes, Medicare changes.	Reduced medical education funding with rise in dependency on grants & clinical revenues for academic GP.

1998/ 2001	**Chronic Care Model**[137,138]	Care model developed to address rapidly rising population of elders with multiple chronic illnesses.	Often leads to another "carve-out" by care-type within practice & shifts attention away from care of children in FM & acute care.
2000	**Drug Sample Regulations**[116]	Requirements for packaging & dispensing to assure quality & patient education.	Increased burden of using drug samples in practice.
2000	**Keystone III Conference**[155]	Public examination of current situation of FP after 30 years and much change - 3 generations intentionally invited.	Warnings raised about future of FP. Intergenerational tensions surface.
2000	**Retail Clinics begin**[149] (& surge in Urgent Care Centers)	Called QuickMedx initially, first for-profit retail clinic in Minneapolis - will become Minute Clinic managed by CVS. Response to lack of primary care access.	Beginning of rapid growth of retail clinics along with Urgent Care centers (started in late 70's but didn't stick until early 90s with another surge after 2000).
2000-2004	**Medicalization & Overdiagnosis accelerates**[117,118,119,120,121,122]	2000 - tipping point for use of antipsychotics in children/adolescents for disruptive behavior. 2001 - abnormal LDL level lowered. 2003 - both abnormal BP and fasting glucose levels lowered. 2004 - treatment level for LDL lowered.	All of these changes are markers for converting life & social issues into medical problems & shrinking normality thus shifting more burden & cost onto the health system.
2001	**IOM "Crossing Quality Chasm"**[133]	Quality of care concerns raised & identified across health system. Recommend "Patient-Centered Care" as one of 6 goals for health system.	Acceleration of push for Quality Improvement (PDSA) in practices.
2001	**JCAHO Pain Standard**[115]	Joint Commission mandates pain measurement & calls it the 5th vital sign.	Raises push for clinicians to treat pain more aggressively - facilitator of emerging opioid epidemic.
2002	**Micropractice Model introduced**[152]	Dr. Moore introduces low overhead micropractice model for GP in Rochester, NY.	This, combined with concierge model, sets stage for Direct Care model introduced in 2005 by Dr. Bliss in Seattle.[153,154]

2003	**Human Genome Project completed**[148]	Entire human genome mapped	Genomics and "personalized" medicine begin - harbinger of another identity crisis for GPs.
2003-2005	**"Family Practice" to "Family Medicine"**[161]	Responding to upcoming FOFM report: AAFP changes in 2003 ABFM changes in 2005	Reinforces FM as specialty & not generalist practice.
2004	**Future of Family Medicine Report**[160] (FOFM)	FM organizations propose initiatives noting potential future demise of FP. Includes "Personal Medical Home" with "basket of services."	Mobilization of all FM organizations to re-imagine clinical practice, residency education, & research.
2004	**Performance Improvement added by ABFM to MOC**[134]	Continued board certification now requires also doing performance improvement/QI activity. Approved for all specialties in 2002.	Accelerates industrialization of GP with emphasis on single measures.
2006	**"Advanced Medical Home"**[162]	Introduced by ACP in response to FOFM "Personal Medical Home."	Raises tensions within GP "family."
2006-2008	**National Demonstration Project**[164]	First test of what will become PCMH funded by AAFP.	Feasible but early warnings about burden, cost, readiness, leadership development mostly ignored.
2007	**Joint Statement on PCMH**[163] (PCPCC begins 2006)	Pushed by corporate purchasers of care & CMS & pulled by consumer groups. Endorsed by 4 "primary care" organizations.	GP practices feel increasing pressure to change & become PCMH. Greatly accelerates common usage of "primary care" to represent GP.
2008	**NCQA PCMH Recognition**[12,13]	Most commonly used means to identify PCMH	Emphasizes technology & checklist approach to change - high burden.
2008	**First PCMH demonstrations begin**[165]	Mostly in states & with focus on engaging insurance payers.	Accelerates acceptance of PCMH as future.
2009-2020	**EMR Meaningful Use**[15]	2009 American Reinvestment & Recovery Act (ARRA) & HIT for Economic & Clinical Health (HITECH) Act with MU stage 1 in 2011, stage 2 in 2014, stage 3 in 2018.	All GP's economically pushed into use of EMRs.

2010	**Affordable Care Act**[45]	Patient Protection & Affordable Care act promotes CMS demonstration projects, health extensions, increased coverage.	PCMH & payment reform scale up. This & Meaningful Use accelerate demise of independent GP.
2011	**Iora Health & Omada Health begin**[209,210]	Venture capital innovation models. First is GP-focused & second is virtual digitized model for primary care.	Both will inform other innovations in GP.
2012	**Accountable Care Organizations**[14]	ACO's established as type of Medicare payment model	Accelerate health system consolidation & development of "primary care service lines."
2012	**IOM Integration of Primary Care & Public Health**[213]	Re-imagining of COPC in context of Affordable Care Act.	Foreshadows growing emphasis on "population health" & social determinants of health.
2015	**MACRA/MIPS/APM**[186]	Legislation passed with October announcement. Blended payment with heavy P4P. Not implemented until 2019.	Emphasis still on FFD, P4P, & shared risk with high administrative burden - too much for independent practices.
2018	**Haven Healthcare begins**[211]	Amazon, JP Morgan, Berkshire Hathaway combine to create health care delivery innovator with intent to transform health care delivery, especially primary care.	To be determined...
2019	**Primary Care First Model introduced**[189]	CMS Demonstration - Population-based payment with >50% upside for performance & 10% shared risk. Introduces multiple blended options building on lessons from earlier CMS Demonstrations. Planned to begin in 2021.	To be determined...
2020	**SARS-CoV-2 Pandemic**[47]	Novel coronavirus causing COVID-19 causes global pandemic dramatically altering global economy & daily life & exposing inequities.	Urgent implementation of virtual care platforms. To be determined...

Table 4: Possibilities for GP 3.0 Building upon the Past

GP 1.0	GP 2.0	GP 3.0
Paternalism	Consumerism	Relationship-centered Partnership
Professional Autonomy	Employee	Professional Agency
Lack of Transparency	Google Ratings	Shared Patient-practice Reporting
Index Cards & POMR Paper Chart	Billing-based EMR	Interoperable Person/Family-centered Clinical Information System with Narrative
Ignorance of Quality	Press-Ganey, HEDIS, Productivity, Industrial QI	Generalist Metrics, Purpose Improvement
Physician Burden	Physician-centric Teams	Transdisciplinary Ensembles
Personal Connections	System Connections	System Integration at Community Level
Localized FFS	Standardized FFD	Global Payments & Abolition of RBRVS

Table 5: Lessons and Implications for Implementing High-Quality Primary Medical Care

Lessons
Underappreciating power of other forms of medical care
Lack of coherent General Practice identity
Underappreciating power of toxic means
Underappreciating importance of language
Implications

Have we accounted for the dominant prevailing forces and powers and their ability to subsume and co-opt our ideas in troubling ways?"
• **Beware Noxious Means**
  ○ Immediately implement generalist-friendly business models
  ○ End policies that fragment care, add administrative burden, and diminish investment in relationships
  ○ Begin purpose improvement pilots
• **Explore the Ripples** - Ask the 4 questions
• **Words Matter** - Change the language to one more accurate, relational, and meaningful

How does the policy enhance general practice and avoid harm? Does it strengthen the core and heart of the generalist craft?
• **Establish a unified identity as generalist craft and discipline**
  ○ Common educational pathway
  ○ New NIH Institute of Generalist Health and Medicine
  ○ Renewed generalist workforce initiatives
  ○ Experiment and innovate new primary medical care delivery models

Table 6: Current Macro & Meso Forces Related to General Practice Transformation: Tides of History

Emergent Macro Force (Global)[229,230,231]
Technology Innovation Acceleration **Digital Technologies** - EMR, HIT, Virtual platforms with data security & privacy issues **Mobile Technologies** - Social media, Telehealth, Hand-held devices, Point-of-care testing & diagnostics **Biotechnology** - Genomics, Nanobots, Personalized medicine with knowledge & skill transfer challenges for GPs **Dataism** - Artificial intelligence, Algorithms, Analytics, "Big" data
Globalization **Global Power Shift** - To East - China, India & emerging economies **Corporate Consolidations** **Corporate Capitalist Management & Bureaucratic Regulation** - Monopolization & massive scale, Productivity, efficiency, & value-driven, Organizational accountability & standardization; Segmentation; Reductionism **Consumerism**
Climate Change/Instability **Resource Scarcity** **Habitat Deterioration** **Catastrophic Weather Events**
Demographic Shifts **Intergenerational tensions** **Decreasing proportion of children in West** **Growing proportion of very old** **Overall population growth** **Rising migrations** **Urbanization acceleration** **Inequities widening** - Corporate - gap between digitized & not; Rural/Urban; Personal - income & ethnicity & "race;" Housing

Emergent Meso Force (Health System)[232,233]
Ownership Change - From independent to corporate employee with >50% in hospital-owned systems - Changes what you serve from professional focus on patient to serving organizational strategy
Integration of Care - Value-based, Population health
Payment - Legal & accountability & performance Incentive via fee-for-documentation, pay-for-performance, care management fees, hybrids or blended
Workforce Changes - Advanced practice clinicians, Health coaches, Navigators, Part-time; Women physicians, Debt burden, Generational differences & urbanization, Team-based Care - Teamlets, behavioral health integration, community health workers, etc., Hospitalists, CAM, Workforce shortage
Dominant Culture/Language - Corporate & consumerist - patient/consumer rights in tension with "big" corporations - "Primary care," "Provider," "Consumer," "PCP," "Evidence-based," "Social Determinants"

Acronym Glossary

AAFP - American Academy of Family Physicians
ABFM - American Board of Family Medicine
ABMS - American Board of Medical Specialties
ACO - Accountable Care Organization
ACP - American College of Physicians
AIDS - Acquired Immune Deficiency Disease
APM - Alternative Payment Model
ARRA - American Reinvestment & Recovery Act
CAM - Complementary & Alternative Medicine
CCM - Chronic Care Model
CLIA - Clinical Laboratory Improvement Amendments
CMMI - Center for Medicare & Medicaid Innovation
CMS - Centers for Medicare & Medicaid Services
COPC - Community-Oriented Primary Care
COVID-19 - Corona Virus Disease 2019
CQI - Continuous Quality Improvement
CVS - Consumer Value Store, now CVS Pharmacy
DOE - Disease-Oriented Evidence
DRG - Diagnosis-Related Group
EBM - Evidence-Based Medicine
ED - Emergency Department
EMR - Electronic Medical Record
FDA - Food & Drug Administration
FFD - Fee-For-Documentation
FFS - Fee-For-Service
FM - Family Medicine
FOFM - Future of Family Medicine
FP - Family Practice
FQHC - Federally Qualified Health Center
GP - General Practice (Family Medicine, General Internal Medicine, General Pediatrics, Generalist Osteopathy)
H1N1 - Influenza A virus hemagglutin 1, neuramidase 1
HEDIS - Healthcare Effectiveness Data & Information Set
HIPAA - Health Insurance Portability & Accountability Act
HIT - Health Information Technology
HITECH - Health Information Technology for Economic & Clinical Health Act
HIV - Human Immunodeficiency Virus
HMO - Health Maintenance Organization
IBM - International Business Machines
IHI - Institute for Healthcare Improvement
IMG - International Medical Graduate
IOM - Institute of Medicine (now National Academy of Medicine or NAM)
JCAHO - Joint Commission on Accreditation of Healthcare Organizations
LGBTQ - Lesbian, Gay, Bisexual, Transgender, Queer or Questioning
LOS - Length of Stay
MACRA - Medicare Access & CHIP Reauthorization Act
MIPS - Merit-based Incentive Payment System
MOC - Maintenance of Certification
MU - EMR Meaningful Use
NAFTA - North American Free Trade Agreement
NCQA - National Committee for Quality Assurance
NDP - AAFP's National Demonstration Project of PCMH
NDP on QI - National Demonstration Project on Quality Improvement in Health Care

P4P - Pay-For-Performance
PCMH - Patient-Centered Medical Home
PCP - Primary Care Physician or Practitioner or Professional or Provider
PCPCC - Patient-Centered Primary Care Collaborative (now Primary Care Collaborative or PCC)
PDSA - Plan-Do-Study-Act (Deming QI Cycle)
POEM - Patient-Oriented Evidence that Matters
POMR - Problem-Oriented Medical Record
PPACA - Patient Protection & Affordable Care Act
QI - Quality Improvement
RBRVS - Resource-Based Relative Value Scale
RUC - American Medical Association's Specialty Society Relative Value Scale Update Committee
RW Clinics - Ryan White Clinics
SARS-CoV-2 - Severe Acute Respiratory Syndrome Corona Virus 2
SCHIPS - State Children's Health Insurance Program
SES - Socio-Economic Status
SPSS - Statistical Package for Social Sciences
TQM - Total Quality Management
USMG - United States Medical Graduate
wRVU - Work Relative Value Units
WHO - World Health Organization
WTO - World Trade Organization