

# The Physician Shortage: A Red Herring in American Health Care Reform

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**ABSTRACT** Although the USA spends more on health care than any other comparable nation, Americans are less healthy than citizens of high-income countries that spend far less. Over the past 12 years, the number of physicians per capita in the USA has been a concerning problem that may contribute to the disparity between health care costs and health status. Some have argued that remediating the shortage of primary care physicians will improve patient health. Others assert that the relationship between health care costs and health outcomes is more complex, influenced by a broad range of variables intrinsic to health care (i.e., provider availability, continuity, coordination); patient factors (ethnicity, socioeconomic status, health behaviors, health literacy, and other social factors); and systems factors (health information management, health information technology and health care measurement itself). This article contends that increasing the physician supply will not improve the health of Americans. Rather, solutions which lower health care costs while concomitantly improving health status will. Aside from community-level actions, health can improve at lower costs by increasing the prevalence of and proficiency in team-based care models, that address individual patient determinants of health, and poorly coordinated care. Future directions for this research and policy development are discussed.

For more than three decades, American health care has been characterized by high costs and mediocre health outcomes according to the Institute of Medicine.<sup>1</sup> U.S. health care expenditures are currently 17% of the GDP which is far greater than the Organization for Economic Cooperation and Development (OECD) average of 9%.<sup>2</sup> Yet, American health is poorer than two-thirds of 30 comparable nations of the OECD on most standard measures of health status.<sup>3</sup> In fact, up through 2008, America's health was poorer than the average of peer nations in these areas: injuries and homicides, adolescent pregnancy, and sexually transmitted infections, HIV and AIDS, drug-related deaths, obesity and diabetes, heart disease, chronic lung disease, and disability.<sup>1</sup> The USA has some of the highest incidence of avoidable hospital admission for adult asthma, COPD, and diabetes mellitus among OECD nations. Yet the U.S. continues to have the highest percentage of citizens (89.5%) reporting that they have "good" health care when compared with patients' self-perceptions of health among 34 other OECD nations.<sup>2</sup> Although there are methodological issues with the way OECD calculated this metric, it remains an exception to the demonstrated

trend that perceived health generally predicts actual health status.<sup>4,5</sup>

Many have hypothesized reasons for poor and costly American health. American culture (e.g., diet, lifestyle) plays a significant role in health status. Records show that immigrants who move to the USA in modern times arrive with better health status than Americans on average. Yet these gains erode overtime and eventually immigrants' health status mirrors that of Americans,<sup>6</sup> suggesting that the American lifestyle itself contributes to poor health status. Additionally, there is the overuse of specialty care rather than appropriate, consistent use of primary care. Consequently, health care is either too specialized for a particular patient's problem or not specialized enough.<sup>7,8</sup> In order to be clinically appropriate and affordable the relationship between specialty and primary care must be characterized by interdependence and symbiosis rather than the competitive juxtaposition observed in a market-oriented health care system (e.g., "unwarranted variation").<sup>9</sup>

Inappropriate care also arises because the fee-for-service health care system inherently incentivizes the overuse of some services and underuse of others.<sup>10</sup> In a fee-for-service system, provider incentives result from overutilization of services, rather than cost savings – unlike other countries' systems.<sup>10</sup> Consequently, patients utilize health care reactively, providers receive monetary reinforcement when patients seek care reactively, and this cycle maintains poor health and high costs. A recent Colorado alternative payment pilot (i.e., SHAPE) published its results, which included a net savings of about 1.1 million dollars. This was achieved by integrating a behavioral health provider in primary care and reducing downstream health care utilization (e.g., hospitalizations).<sup>11</sup> This suggests that more appropriate care can be

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provided without increasing physician manpower and with alternatives to fee-for-service payment models.

How we measure health outcomes is also problematic, as our measurement methods limit our understanding of actual quality. Consider that 84 of the 89 Health Effectiveness Data and Information Set (HEDIS) metrics are process measures, and none measure true outcomes.<sup>12</sup> There is even controversy about the applicability of practice guidelines to primary care, considering that the measures were extrapolated from specialty care standards.<sup>13</sup> Without having solid quality measures, and optimizing how we examine health care data, even modest improvements will go unnoticed.<sup>14</sup>

The current size of the physician workforce is struggling to meet the demands of an unhealthy and aging population. The American Association of Medical Colleges projects that by 2025, America will face a shortfall of 61,700–94,700 physicians.<sup>15</sup> Several studies have suggested that physician workforce problems can be resolved by training and hiring more primary care physicians.<sup>16–19</sup> Purportedly, increasing primary care supply will decrease the demand for more costly specialty care. According to this argument, increasing access to primary care will decrease health care costs by promoting early detection and treatment of diseases before they become more advanced. Supporting this, one recent analysis concluded that increasing one primary care physician per 10,000 Americans was associated with an average mortality reduction of 5%, or 49 per 100,000 annually.<sup>20</sup>

These arguments assume that the supply increase will provide comprehensive primary care that can successfully address a broad spectrum of issues from health and wellness to chronic condition management. It is unlikely that any incremental increase in number of primary care providers will lead to fundamental changes in *how* these providers deliver care. Some have argued that better health outcomes may be gained by improving PCP effectiveness rather than supply.<sup>20</sup> After all, one study found that only 53–56% of Americans receive the recommended preventative, acute and chronic care<sup>7</sup> from their primary care providers. Estimates show that a primary care physician with an average patient population size and demographics would need to spend 7.4 hours daily on preventative medicine to meet all of the recommendations of the USPSTF.<sup>21</sup> Clearly, physicians cannot do it alone and the solutions must involve others.

Assuming that increasing the physician supply will resolve poor health outcomes and growing demand, one might argue that increasing the number of non-physician providers offers a less costly solution. One study found the same treatment outcomes in 1,300 primary care patients when treated by nurse practitioners versus physicians.<sup>22</sup> Hiring more physician assistants has also been shown to reduce the costs associated with fixing the physician shortage by about 28%.<sup>23</sup> Many patients would also rather be seen by a physician assistant or nurse practitioners versus waiting for an appointment with their physician.<sup>24</sup> Kellerman et al, recently, proposed an even less expensive model to close the primary care workforce gap by

creating the primary care equivalent of emergency medical technicians.<sup>25</sup> These non-physician providers could rapidly enter the workforce due to their short training programs. If supply is the path to better health at a lower cost, employing creative solutions like these could boost the availability of primary care resources in a shorter time frame, and at lower cost, than training tens of thousands of new primary care physicians (i.e., increasing the size of the physician workforce). This is unlikely to produce significant improvements in patient health because it would lack the critical focus on the actual determinants of health and the other limitations of the medical system.

Although supply and demand arguments are appealing, these analyses are limited.<sup>26</sup> Increasing physician supply does not necessarily assure increased access.<sup>20</sup> Increasing physician supply can quickly reach a point of diminishing returns or even drive costs higher, whereby care costs more money without resulting in better care.<sup>27</sup> A temporary gain in PCP supply could rapidly be consumed by increasing demand, with the already high, competitive consumption of specialty and ancillary health care services remaining unchanged.

The physician shortage as a significant driver of poor health outcomes is a red herring. The growing burden of lifestyle-related chronic conditions begs the question; what role should physicians play in changing these trends? We do not wish to diminish the importance of primary care. There is clear evidence that primary care is vital in the identification and treatment of diseases and results in reduction of complications, improved coordination and reduced mortality.<sup>20</sup> Primary care physicians have a unique role in health, wellness, and prevention, but are they trained and equipped with the appropriate tools to move an entire population to a higher state of health? Is there an additional, well-defined skill set needed for more effective health behavior change and cost reduction that PCPs do not currently possess?

The majority of the variables driving the top 10 causes of death in the USA are attributable to non-genetic and non-biological factors and 40% of the factors contributing to premature death in the USA are due to behavioral factors.<sup>3,28</sup> Yet, less than 5% of American health care dollars are spent reducing the risks of these preventable factors.<sup>29</sup> Primary care providers are not trained to use behavioral medicine as their first line, if they practice these skills at all. Manageable psychosocial/behavioral health determinants may be divided into two main categories: individual patient variables (e.g., lifestyle; health literacy, decision-making, and motivation) and group/system variables (e.g., culture, socioeconomic status, health care system operations). Addressing both sets of variables can bring about powerful solutions to improve patient health.

Group/system variables have been successfully targeted in almost a dozen developed countries by improving access, managing chronic disease, implementing health information technology, using financial and information incentives, and improving care coordination.<sup>30,31</sup> Improved information

sharing and coordination of care across the multiple levels of stepped-care improves outcomes at lower costs through fewer re-admissions, unnecessary appointments, decreased emergency department utilization, and reduction in inpatient costs.<sup>32</sup> Other efforts to address group/system variables include increasing provider accountability,<sup>33</sup> incentivizing health promotion in the family, community, and workplace, and increasing health care spending on prevention.<sup>34</sup>

Individual patient variables include diet and exercise, substance use, health literacy, financial decisions, and health care utilization. These are best addressed by using behavioral health consultants and care facilitators (also called care managers) who can help patients change their behaviors through evidence-based self-management strategies.<sup>35–37</sup> Employing health coaching and other methods of motivating patients, while increasing health literacy, improves patient engagement. Patient empowerment alone has been cited as an important solution to reducing health care cost and optimizing utilization<sup>38</sup> by making patients active decision-makers in their health care. Patient and family engagement, shared decision-making, communication, and trust between patients and providers have all been found to improve illness prevention and chronic disease management sometimes at lower costs.<sup>31,39–43</sup>

Unfortunately, few of these individual patient variables and group/system variables can be targeted by primary care physicians alone. This is part of why hiring more physicians is a red herring in American health care reform – because it is not just the physician supply which has led to expensive, but mediocre health outcomes. We need shared responsibility and accountability – teams of medical personnel and health care systems offering access, continuity, chronic disease management, health promotion, and prevention along with community partnerships. This must be conducted while helping patients take financial, health, and lifestyle-related action based on their own values, knowledge, and readiness for change. Future health care improvements will only be effective and sustainable if all members of the health care staff are fully engaged and responsible for helping patients address their own health – staff should not simply improve patients' health. As the old saying goes, it is about teaching one how to fish rather than simply giving one a fish. Empowering patients to effectively and proactively manage their own health must be a significant part of the solution. While this is a lofty end-state, developments in team-based care<sup>15,35,36,44–46</sup> and the patient-centered medical home model itself suggest certain steps to achieve this.

By training specialized non-physician professionals and paraprofessionals, individual patient behaviors can be addressed in a cost-effective way. Medical staff must also be trained in motivating patients to pursue positive health choices.<sup>47</sup> In fact, most of the patient variables, and some of the environmental variables (e.g., increasing health promotion, prevention, and improving provider accountability) involve education, motivation, and goal setting by the patient

and the provider. Therefore, any professional or paraprofessional who can provide health promotion, psychoeducation, motivational increases, and goal setting will be a part of team-based care which will facilitate improvements in health and costs.

It is vital that future policy development and research focuses on training medical professionals on how to operate within teams. Without learning communication, coordination and collaboration skills, PCPs will struggle to optimize the benefits of the medical home model.<sup>48</sup> Physicians are not traditionally trained to practice in teams; they are historically trained to practice in hierarchies. Due to the growing diversity of clinicians and paraprofessionals in primary care, resources have been developed to assist teams in “Interprofessional Collaboration Skills” (see [https://members.aamc.org/eweb/upload/Core%20Competencies%20for%20Interprofessional%20Collaborative%20Practice\\_Revised.pdf](https://members.aamc.org/eweb/upload/Core%20Competencies%20for%20Interprofessional%20Collaborative%20Practice_Revised.pdf); [https://www.rwjf.org/content/dam/farm/reports/issue\\_briefs/2011/rwjf72058](https://www.rwjf.org/content/dam/farm/reports/issue_briefs/2011/rwjf72058)). Appropriately, trained teams will include a variety of different health care providers as well as patients and their families. This is a considerable shift from prior training models whereby the patient was not necessarily placed first, and providers were not trained in health promotion, motivational interviewing, goal setting, and other methods of *how* to modify patient behavior.

However, simply employing an additional professional to conduct health promotions, health coaching, care coordination, care management, behavioral health consultation, etc., does not mean this resource will be effectively leveraged by primary care physicians or the patients. In our experience with the military health system even if these resources are abundant, they may still be inappropriately used or underutilized altogether. The primary care culture must adapt – both staff members and patients. This is only possible by promoting team-based care, measuring team-based variables, leveraging non-physician team members, and devising effective workflows to alter costs and health outcomes (see Integrating behavioral health into the medical home: A rapid implementation guide. *Corso, KA, Hunter, CL, Dahl, O, Kallenberg, GA, & Manson, L. Phoenix, MD. Greenbranch Publishing, 2016*).

Long-term, group/system variables such as the market competition between specialty and primary health care, and misaligned provider compensation that unintentionally rewards certain undesirable behaviors among providers and patients must be tackled through initiatives such as payment reform. There are some promising results addressing the individual patient and a few group/system variables.<sup>49–51</sup> We need to continue addressing these variables, including team-based care so that we employ all of our professional, paraprofessional and patient resources to address determinants of health (e.g., health care access, culture, language/literacy, social support, social norms and attitudes, transportation options).

Finally, as a society, we would benefit from examining the role of our health care system altogether. Health care is

costly, highly regulated, and increasingly complex. Many of its facets are also administered reactively. Although prevention efforts are made for pregnancy, infant care, immunizations, and screenings, what about driving health outside of our health care system? To transform health care, we need a more prominent focus in our communities to help prevent and correct the group/system psychosocial determinants and patient/individual unhealthy behaviors *before* the health care system is needed. Solving these issues outside the health care system, while lofty, offers the most sustainable and affordable solution.

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