



Rethinking Primary Care

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ABSTRACT

Primary care is a vast area of study and practice that aims to cover a broad range of human health. It has grown exponentially over the decades, dramatically increasing life spans across demographics, communities, and countries around the world. However, ironically, this vast area of study that provides so many benefits to society today is often restrictive. It is true that primary care encompasses many tasks that help take care of people all around the globe, which includes identifying and managing a vast number of conditions and diseases on their early onset, practicing preventive care techniques, and coordinating with specialists in specific fields. But notice how these tasks are restricted to identifying and moving on to specialist referrals without really taking the time to understand why the population is even experiencing such conditions and aiming to find a solution to it. Primary care being the first major center of healthcare that almost all people around the world experience, primary care physicians have gone through many scenarios where they were lacking the proper knowledge or medication to treat novel conditions they had never seen before, to which they have taken an educated prediction in trying to find the appropriate specialists, all for helping their community out. However, in many cases the referral is a waste of time and money for both the patient and healthcare officials. This problem has been on a slow but steady increase over the past years across developed countries especially, and it is unfair to blame any one party. As a result, it is very crucial to start rethinking our present-day objectives of primary care to better equip our front players of care with the capability to not only identify conditions and diseases but also to be innovators and independent researchers. This paper proposes potential changes to the modern primary care system to help progress society in the ever-growing face of novel, dangerous, fast-growing issues facing human health.



The Need

On average 250 new infectious diseases and several chronic conditions are discovered and seen expanding to more and more populations, breaking age barriers previously thought to be limiting conditions. Now this naturally occurring process of evolution within nature is not going to be completely stopped, as it is nearly impossible to find one thing to stop the process of evolution completely, and in fact, it should not be stopped. However, moving forward in terms of understanding and finding solutions to help mitigate the future impacts of these evolving ongoing transmissions and growth throughout the world is something we should aim for. Currently well-known developed organizations like the CDC in America, WHO present throughout the globe, and more are working towards finding answers to fast-growing chronic conditions like hypertension in the developed countries and working around the clock to find early-on vaccines to novel viruses to be better prepared for future outbreaks in order to avoid pandemics like the recent COVID-19 pandemic. But their research efforts are only as solid as the data available to them, and in fact a majority of the research process is spent collecting reliable data on the health mystery in question. Therefore, the question of how to shorten the time needed to collect data while still having a reliable data set arises. The best solution to this difficult restraint will be something that already exists and is ready to incorporate while meeting or even exceeding the data requirements needed to have a reliable, solid research investigation. That brings us to the vast healthcare branch, primary care—a branch unlike the rest that sees all types of different diseases and conditions throughout the human body in different populations, different regions, and different countries. Primary care is able to provide reliable data with efficiency and diversity to a set number of conditions and diseases because of the scope of practice special to it. So to be able to utilize this underrecognized and underestimated resource, a few changes must be made to primary care in order to propel it towards becoming a major player in global research efforts.

Where to Begin

1. *Preparing for the future*

Primary care has been recognized as a critical player in global health; however, ironically, the number of practicing primary care physicians is on a downward trend. This may be a result of low reimbursement rates and other financial restraints. But the most important factor seems to be that medical students are preferring to enter highly specialized fields like neurosurgery for better pay and “reputation”. Likewise, the number of incoming physicians is on a downward trend, while many established primary physicians are retiring, causing a mass deficiency. So to address this trend, primary care must be viewed as an important front player in advancing healthcare across the world, which will require revamping the description of primary care as well as incentives such as higher pay, flexibility in work locations, and access to new opportunities to employ their skills. This change will take time and isn't something that will automatically take place overnight. Institutions around the globe can also play a role in improving the growth of primary care by making sure to create a supportive environment that aims to promote primary



care at the same level as other specialties like cardiology are promoted. This push might seem aggressive, but with primary care being at the forefront of global health, any push like this aiming at increasing the number of physicians around the world is a valid one, as in the future coming years the impact will clearly be seen. Apart from encouraging medical students to specialize in family medicine, there lies a much more fundamental change. Today medical students are able to major in a multitude of majors during their pre-med years. Many choose to pursue biology or any other major science-related degree in order to better prepare for the MCAT. However, many of these courses teach surface-level concepts that explain the what or why behind major science revelations, and this prevents many students from ever discovering the practical applications of what they learned in their science classes. While knowing the foundations of human systems and the difficult concepts behind them is helpful, it is only helpful to some extent. The real pre-med education would provide students with easy-to-access and highly promoted research opportunities throughout the university. Now this is not the same as working under a professor, helping with their research. This is an independent research initiative that students can participate in through the university's labs. Doing so will not only better educate pre-med students with research methods and better prepare them to be active healthcare leaders in their specialties, it will also allow thousands of medical innovations each year! Now how will this benefit increasing primary care growth? By guiding students to research initiatives with the combination of the right mentoring and encouragement from university campuses across the world, more and more passionate individuals experienced in research and interacting with the idea of care with the flexibility to do side research efforts will fall in love with the idea of the revised primary care as a specialty. It may be true that there are established research firms that are willing to accept skilled individuals, and while many students might choose that track, other individuals that love caring and working in a medical environment, meeting all kinds of people throughout the day, will want a more balanced career—one that allows for patient care interaction as well as research—which is where the “new” primary care comes in. An initiative that encompasses these individual advancements will further primary care but also medical innovation throughout the world. With the knowledge gained from their research efforts in pre-med, medical students who specialize in primary care will be prepared to collaborate with researchers from private and public firms to help with data collection, lab work, scientific inquiry, and more.

2. Working with the Present

There are approximately 12.8 million primary care physicians around the globe, with many holding private practices at various points across the world. To incorporate existing physicians into research operations is going to require a huge amount of money, time, and coordination. However, once the onboarding process begins between research firms and governments with primary care physicians, the research efforts will see an exponential growth. One of the first steps to this onboarding process will be connecting primary care physicians with the right agencies or researchers. This effort to maintain security and reliability of both parties must be overseen by the suited governmental agency. For example, an American primary care physician who has experienced several cases of an X virus should be matched with a U.S.-based researcher studying that X virus through the CDC, as the study of interest aligns with all 3 parties to some extent. Note that handling the task of matching primary care physicians and researchers through federal agencies will take lots of initiative and funding due to the high



amounts of data transactions and coordination that will take place. Figuring out a smooth matching process probably will be the most difficult part of the entire initiative. But after the match has been coordinated, another important question must be answered. Will the collaboration take place in person, requiring the establishment of new research buildings with technical and lab sciences, or will this collaboration take place over a secured video platform where both parties are able to share their work so far with one another and provide insight and feedback where appropriate? This question seems to answer, does it not? It will be up to the parties to decide whether to meet in person or through a secured online platform. Governmental insight will be necessary on this one, as vast construction projects will need to be initiated throughout established cities and provinces if in-person collaboration is decided on.

Limitations of Current Primary Care Physicians

Present-day physicians are not guaranteed that they are aware of research methods and lab work, which will impact the collaboration outlined above. Now it will be extremely hard to provide education to each and every interested primary care physician about how to go about starting and managing research initiatives. Hence, present-day primary care physicians are limited to some extent in fully immersing themselves in the research effort. However, this isn't an inhibitor of success in future research efforts. Physicians can still help with data collection, providing researchers with specific and detailed insight on their rich experience with that X condition or disease.

Incentives

To encourage future and present generations of primary care physicians to shift their scope of practice to one that will include research collaborations with agencies, incentives must be given. And one type of incentive will not work with most physicians, so there need to be a variety of novel and helpful incentives that will benefit the present and future generations. Some examples may be financial incentives, like an extra payment for their collaboration efforts, or even education incentives that provide financial aid for medical students pursuing a primary care physician specialty. Whatever the case, these incentives will make a significant impact on the coming age of advanced healthcare.



Conclusion

In conclusion, this proposed change in the primary care sector will take time and dedicated efforts throughout the coming 6+ years. However, with the recent AI pandemic, with a wide number of people across the globe turning to AI, technical challenges facing research collaborations might be solved using AI applications. In the end, despite the time and amount of resources required for this change, initiating this change is always astride the path of success and will definitely benefit the coming generations and present generations with novel, life-changing health innovations, improving quality of life and solving age-old health mysteries, exponentially growing the healthcare sector. Research will have faster turnout rates and will save thousands on data acquisition if they partner with primary care physicians. As a result of the demand that will be created, the demand and job outlook for physicians will expand significantly, which will provide easier access to rural and underrepresented populations throughout the world. In order to preserve our front players in primary care and to exponentiate research, the outlined proposed initiative must be taken now in order to provide the lifestyles of the coming and present generations.



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