

Preventative Medicine as a New Cure

Introduction

The American healthcare system is at a crossroads. In recent decades emergency department deaths have been cut in half, there has been a 30% decline in mortality from heart disease and stroke, and the trend of cancer deaths has finally been reversed (Dowling, 2018). While these successes should be celebrated, they also give rise to a new question: how do we stop people from getting sick in the first place? The answer lies in preventative medicine, a field which focuses on the health and well-being of individuals and communities with the goal of preventing disease, disability, and death (ACPM, 2019). Preventative medicine has less to do with tests and prescriptions and more to do with the social determinants of health. The social determinants encompass an individual's behavior and environment and, according to the University of Wisconsin Population Health Institute, they determine 80% of overall health (Dowling, 2018). It follows that in order to stop people from getting sick, we must harness this 80% and make structural changes that positively impact the social determinants of health. This must take place both in the clinical setting and at the community level to ensure that all Americans are reached. Preventative medicine will not only lead to healthier citizens, but to reduced medical costs and more equity across healthcare.

The Clinical Approach

In order to integrate preventative medicine at the clinical level, we must reevaluate how physicians communicate with patients. In recent years, medicine has been making great strides in adapting a patient-centered, individualistic approach to communication and leaving behind the archaic paternalistic approach to care. Patients now have more control over their healthcare and are showing faster recovery from illness, increased pain tolerance, and decreased tumor growth (Ha et al, 2010). There is abundant evidence that people are healthier and recover more quickly when given increased control over their healthcare decisions (Ha et al, 2010). Then why are physicians not spending adequate time discussing sleep, diet, exercise, and stress or encouraging patients to take control of their daily lives in a way that makes a positive impact on their health?

These discussions would be preventative medicine, and this is an element of physician communication that must evolve.

There are multiple reasons why healthcare workers do not discuss preventative medicine with patients. The most commonly cited reasons include lack of time and inadequate insurance reimbursement (Snipelisky et al, 2016). To ask a doctor to talk about every aspect of preventative care with each patient is irrational; it would add 7.4 hours to each physician's workday (Snipelisky et al, 2016). Therefore, the conversation must be tailored to each patient. The social determinants of health are the key to determining what physicians should discuss with each patient. Physicians know about their patient's health behaviors, such as tobacco or alcohol use, sexual activity, or diet and exercise. They are also frequently privy to information about housing and community safety, employment, or family and social support. Through this knowledge they are able to have conversations that will directly impact their patient's behavior, such as encouraging someone who recently lost their job to seek support from a friend or encouraging a patient who has high blood pressure to join a local walking group. By tailoring patient conversations based on the information at hand, doctors will spend less time on each conversation and can easily incorporate this information into primary care visits.

Moreover, as most insurance companies switch away from a fee-for-service model to a value-based reimbursement system, physicians will have a financial incentive to discuss preventative care with their patients. Value-based care pays physicians based on the quality of care they give their patients, rather than the quantity (CMS, N.D). This method of payment rewards healthcare providers for helping individuals affectively manage their health and avoid getting sick, whereas fee-for-service care pays physicians for each test or procedure ordered for patients (CMS, N.D). Fee-for-service care has been diminishing in recent years, and as this trend continues, preventative medicine will be able to be integrated effectively in the clinical care setting.

The Cost-Benefit Analysis

Not only will integrating preventative medicine into healthcare improve patient-doctor communication and health outcomes, but it will also reduce medical costs. Chronic diseases that could be avoided through the use of preventative medicine account for 75% of US healthcare spending (CDC, 2009). The majority of chronic diseases, such as heart disease, respiratory disease and Type-2 Diabetes, can be prevented with proper clinical care and education. However, finding preventative, cost-effective solutions in a system that is as complex as the healthcare system often seems impossible. It is not. The solutions are inherent to the nature of the problem itself: change the behavior that leads to chronic disease and healthcare costs will decrease.

One solution is to lower or eliminate deductibles and co-pays for preventative services such as yearly physicals, screening tests, and vaccinations. Regular health exams can identify problems before they become severe and vaccinations prevent serious illnesses. For example, the hepatitis vaccine can prevent the onset of liver cancer and blood tests can detect the early symptoms of diabetes (American Cancer Society, N.D) (Mayo Clinic, N.D). Moreover, if the physician-patient conversations outlined previously were also implemented, there would be significant chance for patients to reduce risk-behaviors such as tobacco use and inactivity before chronic disease onset. A frequent argument against making preventative services free is the cost – roughly \$5 billion. Although this is a daunting price, it is vastly overshadowed by the savings. If the prevalence of hypertension alone was reduced by just 5%, the US would save \$25 billion (Beaton, 2017). Every year the price tag of chronic disease medical expenditures is \$756.6 billion – most of this is preventable, and well worth the .007% investment (CDC, 2009). Another important source of medical cost is the notoriously expensive emergency department (ED). Every year, \$8.3 billion is spent on ED care that could be provided at another healthcare facility (Daly, 2019). One of the largest drivers of ED costs is hypertension – racking up \$113 billion annually in hospital fees (Daly, 2019). Treating hypertension in an ambulatory care setting and encouraging patients to adopt a healthy lifestyle could save \$2.3 billion in ED costs alone (Daly, 2019). The same is true for diabetes, which would save another \$1.3 billion (Daly, 2019). The previously discussed solutions are helpful to patients who are insured. If these solutions are implemented, they will have access to preventative medicine in their doctor's office. These patients can modify their social determinants of health by changing their behaviors. They have the ability to receive screening tests, eat healthy, quit smoking, be active, and avoid

the mortality and morbidity that looms over so many chronically ill patients. However, there is a large population of patients who aren't insured and who don't have healthcare access who are turning to the ED for their only source of treatment (Fockele et al, N.D). This is where the second half of the social determinants of health, the environment, comes to the fore. How do we account for the comorbidity of chronic conditions and lack of health insurance that disproportionately affects minority populations? How can you expect someone to change their behaviors if their environment will not allow for change?

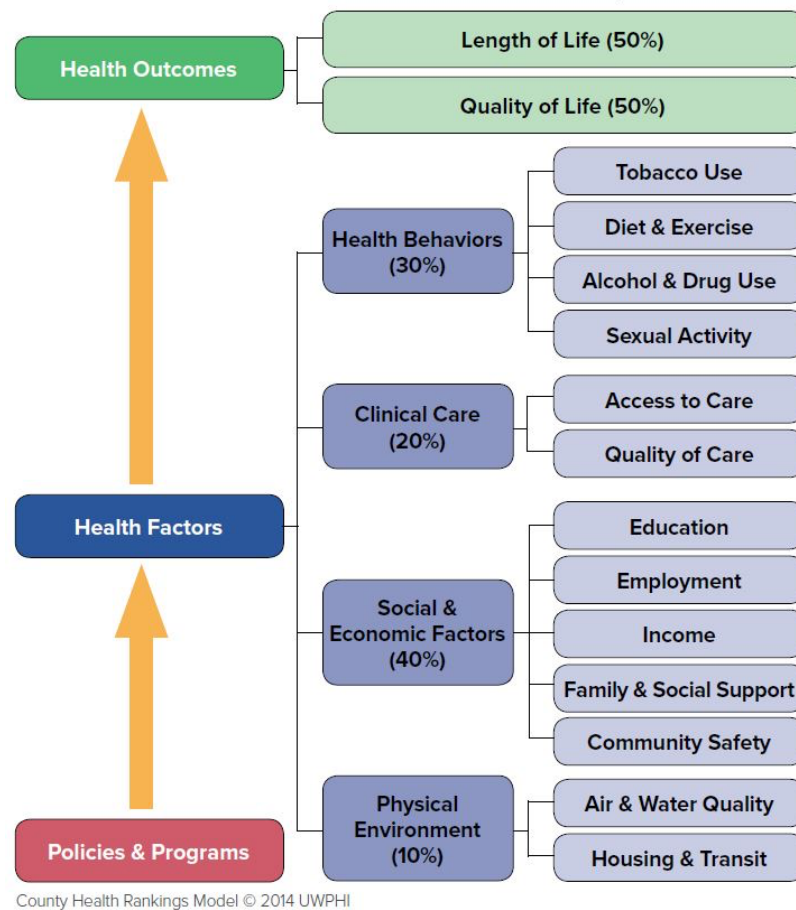
The Community Approach

With reference to the chart below, consider a man who was born into a low socioeconomic status family and was unable to complete higher education. With a lower level of education, he is more likely to struggle finding stable employment and a steady income, detracting from the 40% of his health that can be predicted from social and economic factors. (Fockele et al, N.D). His lack of income may lead to insecure housing, reducing the quality of his physical environment and 10% of his predicted health (Fockele et al, N.D). Without a home or stable job, he has a significantly harder time qualifying for healthcare assistance programs such as Medicaid, and even if he is able to receive benefits it will likely be difficult for him to maintain regular healthcare appointments (CBPP, 2020). Insecure housing is also linked to increases in tobacco and alcohol use, and an inability to access healthy foods (CBPP, 2020). These barriers then detract from the 50% of health predicted by clinical care and health behaviors (Fockele et al, N.D). It is easy to see how the social determinants build upon one another, and how the millions of Americans who are like this hypothetical man are left vulnerable to negative health outcomes. These people cannot be forgotten— it is arguably most

important to address their needs, as they have a life expectancy seven years shorter than their high-income counterparts.

Emergency Medicine Advocacy Handbook (N.D) Impact of Social Determinants of Health.

[Flow Chart] Emergency Medicine Advocacy Handbook. Retrieved from:



<https://www.emra.org/books/advocacy-handbook/social-determinants/>

A third of the American population does not have health insurance or is underinsured (Tolbert et al, 2019). Half of all uninsured people are minorities (Healthy People, 2020). In addition, many people face additional barriers to accessing health care such as accessibility, time constraints, or lack of health education (Healthy People, 2020). Again, these barriers are also disproportionately experienced by minority populations and individuals of low socioeconomic status (Healthy People, 2020). This is important because it is at the root of the social determinants of health. One individual may experience multiple levels of health inequities that could render them unable to

adhere to health guidelines (Fockele et al, N.D). Although it is vital to consider how to increase healthcare coverage, large structural changes take time and community-level changes can diminish these disparities in the interim.

In recent decades, public health has begun to focus on community-based efforts to mitigate disease. However, recent data shows that current programs are lacking significant results (Fry et al, 2018). In order to improve the outcomes of these interventions, it is important to understand the shortcomings of past programs. One significant problem is that the people within the community are rarely, if ever, involved in selecting the health issues that the programs will address (Merzel et al, 2003). It is rational that people will be less willing to participate in programs that they had no say in developing and may not see as necessary. This problem has roots in the paternalistic approach to care. Paternalism is an act that is performed with the intention of promoting another's wellbeing but done without the other's consent or input (Drolet and White, 2017). The opposite of paternalism is shared decision making, which increases patient involvement and leads to improved patient quality of life (Drolet and White, 2017). Clinical medicine has been moving away from paternalistic care for multiple years, and it is time for community health to follow. A possible antidote would be to have community health boards, comprised of volunteers from the population, social workers, and community health workers, who together could discuss the specific health needs of a neighborhood. These discussions could then be used to implement programs tailored to each community.

Another shortcoming to be addressed is that community health programs targeting specific health outcomes can have a negative impact on health behaviors they are not addressing (Heath 2018). For example, programs that focused on obesity saw increases in tobacco use and vice versa (Heath, 2018). Initiatives that target holistic care can mitigate this problem: helping individuals to address the root problems leading to unhealthy behaviors would be more successful than targeting the behaviors themselves (Krist et al, 2015). Targeting deep problems such as neighborhood safety, education opportunities, and safe, affordable housing is more challenging and expensive than surface-level fixes, but the benefit is clear. An investment of \$10 per person each year in community programs would yield over \$16 billion in medical savings annually within 5 years (Departments of Labor, Health and Human Services, 2011). This is a

return of \$5.60 on medical costs alone for every dollar spent (Departments of Labor, Health and Human Services, 2011). Additionally, healthier citizens lead to less absenteeism at work and school, which leads to increases in education and employment and better quality of life (Departments of Labor, Health and Human Services, 2011). Integrating preventative medicine at the community level allows disadvantaged individuals to take control over their outcomes. The social determinants start to reverse themselves, and everyone benefits.

Conclusion

The American healthcare system has had numerous successes in clinical care in recent decades but increasing our country's health should not stop there. Rather, these successes should serve as the first domino in the line of battles against morbidity and mortality. By integrating preventative medicine throughout all levels of care, from the community center through the doctor's office, we can help increase years of healthy life for generations to come. Encouraging healthcare staff, public health workers, and community members to have conversations about preventative medicine will empower individuals to take control of their healthcare. In turn, empowered, healthier people lead to greater patient satisfaction, increased healthcare equity, and lower costs. The set of dominos is poised to fall, and as it does the health of the American people, and the success of our healthcare system, will rise.

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