Strategies for Cost Saving through Social Determinants of Health

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Executive Summary

Healthcare costs in the United States are the highest in the world and only getting higher. To combat rising costs, social determinants of health, which account for 40% of a person’s health, need to be addressed. Healthcare organizations can utilize one, or more, of three strategies to address these social determinants: Partnering with community based organizations to help maintain and improve health, working with policymakers to implement public health interventions, or building housing and communities focused on health.
Introduction

Highest spending, average outcomes. Whether involved with the healthcare industry or not, these four words are familiar to just about everyone regarding the healthcare system in the United States. The United States tops the charts in healthcare spending with about 17% of our GDP being healthcare expenditures. This is 5% higher than the next highest country and 9% higher than the worldwide average measured by the Organization for Economic Cooperation and Development (PGPF, 2018). In 2016, National Healthcare Spending was $3.3 trillion ($10,348 per person) which was 4.3% higher than spending in 2015. This trend does not look destined to slow or stop anytime soon with projected spending rising 5.5% a year until 2026 (CMS, 2018). So this begs the question, what is causing the continual rise in healthcare spending?

The common answers to this question are technology and an aging population. We currently live in a world that is innovating technology faster than ever before. The strides made in the last few years, including advancements in medical technology, are greater than the previous few hundred years combined. Every year, new machines, monitors, techniques, gizmos, etc. are introduced to the healthcare industry. And every year, physicians and hospitals look to replace their “old” and “outdated” equipment with the latest and greatest technology. Physicians, and patients, want the newest treatments and technologies even though these new advancements produce the same outcomes at higher prices than the products they replace.

The elderly are expensive to keep alive. While this is a bit blunt, it is based in fact. In 2012, healthcare spending for patients 65 and older was $18,988, nearly double
the average spending per person (CMS, 2018). Coupled with that figure is the fact that more and more people are moving into the elderly category as Baby Boomers get older. So not only are elderly patients spending nearly $19,000 a year, more patients over the next few years will be spending that much each year on healthcare. While these, and other factors, help drive up the cost, solutions must be found to control and decrease the costs of healthcare. But, why should we care about controlling costs?

As a payer, higher costs mean more money out of pocket. When prices increase, so does the amount of money having to be spent to cover those expenses. For the consumer, or patient, higher healthcare costs mean higher premiums paid to insurance companies, higher co-pays on doctors’ visits and prescriptions, higher out-of-pocket costs, etc. All of which means there is less money for patients to use for other things in their lives. For insurance providers, higher costs in healthcare mean that more money is being spent on claims. Insurance providers can then either suffer lower profits or, raise premiums and risk having lower enrollment, which is a spiral that could lead to the company failing. As for healthcare providers, higher costs could lead to business failure. The higher costs could lead to fewer payments from the insurance providers and less people being insured. If less people are insured, more people will come into the emergency department to seek care, the costs of which will have to be eaten by the hospital, which could lead to the hospital going under. And private practices will not be able to sustain a business without the payments from insurance providers. For the government, higher costs would mean that either taxes would have to be raised to keep federal and state programs going or those programs would have to end. Medicare is
already expected to run out of money, and with costs getting higher and higher, other programs could follow suit. Now that motivation has been established for all the players in healthcare, solutions and strategies can begin to be formed and executed. These strategies are designed to lower costs of healthcare by targeting social determinants of health.

**Background**

When looking to decrease costs, and improve overall health, population health is a good place to start. Population health can be thought of as “measuring a community’s health outcomes and the factors that cause them, and then using those measures to coordinate the community’s people and organizations to improve health” (Stoto, 2013). Population health has come to the forefront of healthcare because of the provisions in the Affordable Care Act. The provisions provide opportunity for the focus to be moved past simply health care delivery to the wide range of factors that contribute to health outcomes (IOM, 2014). This shift recognizes the fact that the delivery system of healthcare is responsible for only a fraction (about 1/5) of what keeps people healthy. Population health is also on the forefront of healthcare because it is one of the goals of the Institute for Healthcare Improvement’s Triple Aim. This initiative has been widely accepted by the healthcare system in the United States. The overall goal of the initiative is to optimize health system performance so that patient experience is improved, per capita cost of health care is reduced, and the health of populations is improved.

In a presentation at the Mayo Clinic Transform Conference in September 2018, Dr. Leana Wen emphasized the importance of improving population health in a
community. As the exiting commissioner of health for the City of Baltimore, Dr. Wen dealt with the population health of Baltimore every day and was therefore able to give us a few examples of improvements in population health. In 2009, Baltimore had an incredibly high infant mortality rate. To combat this, 150 partners came together and provided services such as home visiting and crib delivery to help lower the mortality rate. Through their combined efforts, the infant mortality rate in Baltimore dropped 40%.

Baltimore also had at one point about 10,000 school age children who needed glasses. From this need came Vision for Baltimore, which is a partnership between the Baltimore City Health Department with City Schools, Johns Hopkins University, Vision to Learn, and Warby Parker. The program screens children to see if there is a need for glasses and if there is, provides glasses to the child. So far, about half of the children have been screened and provided with glasses (Vision for Baltimore, 2017). The last story Dr. Wen shared was on opioid overdose in Baltimore. The city was averaging about 700 deaths a year from opioid overdose so the city found a way to write 620,000 prescriptions for Naloxone to counteract the effects of Fentanyl, the primary opioid used. Many lives have been saved from overdose since the prescriptions for Naloxone were provided. The root of all of these problems came from the environment in which the population lived. And, from the environment come the most important causes of health—social determinants.

Social determinants of health are “the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of power, money, and resources at global, national, and local levels” (WHO, 2017). Some examples of social determinants are social support, class, education, income, neighborhood, etc.
Compared to medical services, social determinants have double the responsibility for health outcomes (Batheja, 2018). When patients are poor, live in low income communities, are poorly educated, etc., they tend to have more chronic illnesses, get sick more often, and struggle to maintain their health. As a result, these patients are in the hospital very frequently, usually the emergency department as low income neighborhoods have high uninsured rates, which leads to high costs.

**Strategies**

To address the ever-rising cost of healthcare, social determinants need to be addressed and combated. Strategic planning can give communities guidance on the best way to attack and fix the social determinants that affect them most. Three strategies that healthcare organizations should consider to address social determinants of health include partnering with community-based organizations, working with public health departments, and working with companies to establish housing-health models.

**Strategy 1: Community Based Organizations**

The most prevalent strategy for combating social determinants of health is for healthcare organizations to partner with community-based organizations, or CBOs. CBOs are, according to the National Institute of Health, “public or private nonprofit organizations that are representative of a community or a significant segment of a community and work to meet community needs” (AIDSinfo). An example of a CBO is Project Angel Food in Los Angeles. They provide healthy meals to the seriously ill (Livingston, 2018). CBOs by design have intimate relationships with their communities, often working with members of the community in a home setting (Powers, 2018). This
access allows CBOs to know exactly what the needs of the community are. So in effect, CBOs are designed to meet the social needs of the community through the services they provide. These services can, and often do, have major impacts on the health of the community. For example, visits to the home of medically complex patients or the elderly provides consistent monitoring which could help notice potential problems with the patients. Another example is fall prevention in the homes of elderly adults who are at-risk of falling. This instruction on ways to reduce the risk of falling can reduce falling accidents in the home and in turn, reduce hospital readmissions. If providers are aware of the impact CBOs can make on the health of patients, they can connect patients to community services and improve health outcomes. While reference alone seems like it could be enough to contribute to better health outcomes and lower costs, this does not maximize the potential of CBOs or their impact on healthcare organizations.

The best way to get the most out of CBOs is for healthcare organizations to collaborate with them. CBOs typically receive their funding through grants or government agencies. These cash flows can be generous but are unpredictable, causing CBOs are unsure of how long they must make the money they receive last. The funding is also usually tied to a specific service or set of services. In order to maintain funding, CBOs are forced to concentrate on the service(s) that are laid out by the funding source, severely limiting CBOs from offering a cohesive set of services (Powers, 2018). Partnering with healthcare organizations allows CBOs to identify those in need and their needs. With a steady stream of funding from the healthcare organizations, CBOs can focus their efforts on serving those in the community and actually serving all of the
community’s needs, not just one particular service. The increased status of health within the community will help reduce costs for the healthcare organization such as readmissions, high admittance of severe illnesses, etc. Exposure of the partnership could also bring in new patients, as they feel more comfortable knowing that their healthcare providers care for the community’s health and by extension, their health. The exposure will also bring in more support for the CBO, which will allow it to expand its reaches within the community, thus further contributing to good health in the community.

Examples of CBOs with partners in healthcare include Project Access NOW, who partnered with six hospitals and two coordinated care organizations in the Portland area to connect patients to social services to ensure safe discharge from emergency and inpatient hospital settings; Hunger Free Colorado partnered with Kaiser Permanente, Children’s Hospital Colorado, and Denver Health to screen for food insecurity, which enabled them to connect those at-risk to food and nutrition services (CHCS, 2018).

Partnering with a CBO is a process and one that should not be taken lightly. For these partnerships to come to fruition and the contract to be signed, the CBO and the healthcare organization must come to terms on a few subjects. First and foremost, for the partnership to be a success, the CBO needs to meet three criteria: broad service area, clear value proposition, and appropriate patient volume.

**Broad service area.** The CBO needs to cover a broad service area because “health plans and payers are more likely to contract for services that cover their entire geographic area, including their whole provider network” (Powers, 2018). Covering a
wide area enables CBOs to get the contracts, which allow them to continuously serve that community.

**Clear value proposition.** The CBO needs to have a clear value proposition because they must understand the needs of the healthcare organization and show how their program can meet these needs. Showing that the program can meet the needs, and provide a return on investment, will help the CBO contract with a healthcare organization (Powers 2018).

**Appropriate patient volume.** The CBO needs to have an appropriate patient volume because without enough inflow of patients, partnering with the CBO is not a good financial deal for the healthcare organization. The exact number needed for volume would be ironed out in the contract (Powers, 2018).

Next, the CBO and the healthcare organization need to make sure they are aligned in terms of mission and values. If they do not have the same mission and values, the partnership is likely not to work. Following this, the CBO and healthcare organization should be sure that they have the ability to leverage complementary areas of expertise, they have clear and well-communicated referral process between organizations, and they have transparent, frequent communications. After these areas are sorted out, the last matter to be determined is payment model. The payment model can be one of three: fee-for-service, flat rate, or population-based payment. Regardless of the payment model, these contracts/partnerships should provide financial gains for both the CBO and the healthcare organization while also addressing the social determinants in the community.

**Strategy 2: Public Health Interventions**
Public health interventions are great ways to address social determinants of health and improve the overall health of the population. As discussed earlier, the Baltimore Public Health Department was able to combat social determinants of health and vastly improve the health and lives of the people living in Baltimore (Wen, 2018). In two of those stories, healthcare organizations, and others (Warby Parker, Johns Hopkins University, etc.), partnered with the public health department to solve the issue. Similar to those organizations, healthcare organizations can also partner with their local and state public health departments to combat social determinants. On the flip side, only one issue was able to be solved by the Public Health Department alone. In the other stories, the Public Health Department needed outside organizations to help them achieve their goals.

Healthcare organizations have incredible influence over the healthcare landscape. With this influence, healthcare organizations can influence policymakers to give public health departments the tools they need to combat social determinants of health. Public health departments struggle to get stable and flexible funding and to have research needs met (Narain and Zimmerman, 2018). Public health departments need stable, adequate funding that is also flexible enough to meet the needs of the community. This funding is difficult to come by as funding tends to be either sporadic or a one-off budget allocation for specific initiative or disease-specific. Funding can also have requirements that force funds to be shifted from one project to another as political priorities shift (Narain and Zimmerman, 2018). Public health departments also lack the research to support involvement in work on the social determinants of health. There is little research on the cost, cost-effectiveness, and return on investment regarding interventions and the
research that does exist is not available to state and local public health departments. With the proper funding and access to research, public health departments can address social determinants of health and determine which interventions are the most successful across the board (Narain and Zimmerman, 2018). This type of information is key to making informed decisions if healthcare organizations decide to partner with a CBO or if they were to do any work on their own to combat social determinants of health. To allow public health departments to do what they are trying to do, healthcare organizations need to lobby policymakers to provide the adequate funding public health departments need. Policymakers want to have a healthy population and definitely do not want to see costs rise as that leads to higher taxes, which leads to policymakers being kicked out of office via elections. By lobbying and showing them the benefits public health funding can have on improved health and reductions in cost, policymakers will do what they can to secure that funding.

Aside from funding, healthcare organizations can lobby policymakers to implement policy regarding education. Why education? Education contributes to, aside from cumulative life advantage, both morbidity and mortality. Research has shown that education affects health via “neural development, biological aging, health literacy, and health behaviors” (Cohen and Syme, 2013). One instance of educational policy affecting health is the Head Start program (federal), which provided preschool education and health services. This program was shown to have a favorable impact on health outcomes. Policies that raise the dropout age and prevent dropouts also affect health outcomes as well as future educational and employment trajectories. The health benefits of having a
high school diploma are greater than having a GED (Cohen and Syme, 2013). Education is a great place to implement policy that will help improve not only the education of youth, but also the health of those youth now and in the future. Lobbying policymakers for the implementation of similar policies will be hard for policymakers to say no to as higher quality education and better health outcomes are issues that most constituents stand for.

**Strategy 3: Housing-Health Models**

This particular strategy was born out of addressing one social determinant of health but has been expanded to cover many social determinants of health. In remarks made at Mayo Transform 2018, Cyrus Batheja (2018), National Housing-Health Leader for UnitedHealth Group, shared data on the amount of money UnitedHealthcare® spent on health services for the homeless. He reported that over the course of a year, UnitedHealthcare® paid $413 million dollars to treat around 21,000 homeless persons for an average of $19,681.20 a year. These numbers were found using the ICD-10 code for homelessness, which is non-reimbursable and therefore is highly underreported. Of the 21,000 homeless that UnitedHealthcare® treated, the 500 highest utilizing (those who came into the emergency room the most often) homeless were spending $81 million a year. This is an average of $162,000 per person. These high costs led UnitedHealthcare® to find a way to provide stable housing for these people. Historically, “projects” do not provide an environment that encourages good health.

Batheja and UnitedHealthcare® led efforts to begin developing “dignified” housing complexes. The complexes are dignified in the sense that people would want to
live there and they are apartments that people can be proud to call home. By creating nice, sustainable housing for these individuals, health outcomes rise and these people are given a chance to reintegrate into society. This housing is not only a better alternative to “projects” but it is also replacing “projects” and allowing for those residents to get the dignified housing and restart they need.

This housing is only one piece of the puzzle. The community surrounding the housing needs improving so that the community does not return to its former state. This would cause the recurrence of the same social determinants that bring health down. The community must be developed and become a “Purpose Built community.” A “Purpose Built community” is a community that is a defined neighborhood, has mixed income housing, has a cradle-to-college education pipeline, has community wellness, and has a community quarterback. To develop the community, organizations must first raise money to get development started ($15 million will be used as an example). From there organizations then go to Community Development Financial Institutions (CDFIs) which invest between $10 and $15 billion a year in community development. The organizations will borrow $15 million from the CDFIs and invest $5 million of the money raised to pay for more low-income housing. With the remaining $10 million, a childhood development center can be built for the community. To make the community “Purpose Built,” there must be a community quarterback who can spearhead the development of the community.

Next, the community needs to have mixed income housing because if it is just low income, the community will revert to its previous state. To obtain mixed housing, the community needs to be bought in a checkerboard style so that low-income housing will
always have a place. As the community becomes nicer and grows, higher income families will begin to move in. The community then must have a cradle-to-college education pipeline. Schools offering pre-k to 12th grade are crucial to ensuring the community is educated (higher education = better health outcomes). The community also needs community wellness institutions that will help keep the community active and eating right. Finally, the community needs to have a defined neighborhood, boundaries that let the residents have a specific community to call home.

This entire process has high monetary costs for development but the rewards from investment are incredible. East Lake Meadows in Atlanta was incredibly impoverished before its revitalization, known as “Little Vietnam” because it was basically a “war zone.” Since the revitalization, the violent crime has gone down 90%, graduation levels were at 80%, and >80% of graduates went to college (Miller, 2017). Creating a Purpose Built community allows an impoverished community to turn around its life. The new communities bring higher economical value to the community, higher standards of living for the residents, and better health outcomes. That kind of return makes the investment worthwhile.

**Recommendations**

All three of these strategies can combat the social determinants of health in communities and lead to cost savings for players in healthcare. The strategy that could have the biggest benefit would be partnering with community-based organizations. While public health interventions can lead to improvements in health, as seen in Baltimore, these interventions take time as policymakers debate and decide what public health
interventions should be taken. The change that is needed in healthcare spending is needed sooner rather than later, so waiting for policymakers to get everything lined up is not the most efficient strategy. Housing-health models show how much money can be saved just from providing stable housing. Couple that with the full community development, and all facets of life (health, income, standard of living, etc.) are vastly improved in communities. This strategy, however, requires incredible capital upfront and throughout the process, making it a difficult ask for any healthcare organization.

In the end, CBOs provide the best way to address social determinants of health. CBOs have incredible access to patients’ lives and homes, giving these organizations insights that providers simply do not have. The partnerships between CBOs and healthcare organizations allow providers to know their patients have the ability to maintain and improve their health, without poor social determinants undermining the work done by providers. The partnerships also allow CBOs to keep their doors open by having a steady stream of funding, while lowering readmission rates in hospitals and ER visits for the uninsured as well. Overall, the best strategy to cost save through addressing social determinants of health is to partner with CBOs.

**Conclusion**

Healthcare spending in the United States is growing higher and higher every year. With spending over $3 trillion and an average increase of 5.5% projected over the next eight years, the healthcare industry needs to implement strategies to start cost saving. One approach should focus on the area that has the most responsibility in health outcomes: social determinants of health.
Three strategies are identified to address these social determinants, which will lead to cost savings in healthcare. Improved health leads to lower costs. The first strategy is for healthcare organizations to partner with community-based organizations, who already combat social determinants, by providing funding to continue improving the health of the community. The second strategy is for healthcare organizations to use their power to push for policies and funding that will allow public health departments to intervene and combat social determinants. The final strategy looked at providing stable housing for those with insecure housing and simultaneously building up the community, both physically and economically, around the new housing. Regardless of the strategy healthcare organizations choose to take, social determinants of health must be addressed so that health can be maintained and improved in communities and so spending on healthcare can begin to make its way down.
References


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