This issue brief frames a basic business case supporting academic health centers addressing environmental, social, and behavioral determinants of health in addition to medical determinants. The issue brief also examines practical considerations and potential limitations with respect to the ability of academic health centers to address a broader spectrum of determinants of health effectively.

WHAT MAKES ACADEMIC HEALTH CENTERS UNIQUE?

A full appreciation of the business case for addressing environmental, social, and behavioral determinants of health begins with the definition of an academic health center. As defined by the Association of Academic Health Centers (AAHC), it is an educational institution that includes a medical school and at least one additional health professions school (e.g., nursing, dentistry, pharmacy, allied health, public health, veterinary medicine, graduate school in biomedical sciences), and either owns or is affiliated with a hospital or health system.

In the course of carrying out their mission of advancing and applying knowledge to improve health and well-being, academic health centers engage in three essential activities:

- Educating the nation’s health workforce through their health professions schools;
- Conducting cutting-edge biomedical and clinical research; and
- Providing comprehensive patient care.

Although they are part of the system of higher education and located within universities, academic health centers engage in clinical activities that extend beyond those of traditional academia. Similarly, although they compete in the healthcare marketplace with for-profit and not-for-profit physician groups, hospitals, and health systems, academic health centers engage in far
more extensive educational and research activities than their competitors. In other words, they are neither purely academic institutions nor purely healthcare providers. Academic health centers have additional distinguishing characteristics. For example, they frequently serve a disproportionate share of the uninsured and underinsured in their communities, and often have a mission (if not a mandate) to serve as the provider of last resort. Academic health centers are also more likely to provide tertiary and quaternary healthcare services, specializing in the most complex and difficult diagnoses and treatments.

WHAT ARE THE DETERMINANTS OF HEALTH AND WHY DO THEY MATTER?

Although the foundational determinants of health are communicable and non-communicable disease, individual, community, and population health can be significantly affected by environmental, social, and behavioral determinants as well. For example: low income, limited education, and lack of access to health care are associated with shorter life expectancy; prevailing western dietary norms are linked to obesity and its related medical conditions; and urbanization is associated with increased stress, depression, and automotive injuries and fatalities. Indeed, emerging research suggests that a wide range of environmental, social, and behavioral determinants of health can result in very large disparities in health status and life expectancy.

Given the limited length of the issue brief format, this analysis does not examine in detail the scientific and moral case for addressing environmental, social, and behavioral determinants. Instead, it presumes the scientific and moral cases have been made and focuses exclusively on establishing a business case for addressing a broader spectrum of determinants of health. Additional topics beyond the scope of this analysis will be the focus of an ongoing series of related AAHC issue briefs.

“...academic health centers must confront a long-standing obstacle to assuming greater responsibility for a broader spectrum of determinants of health...”

ACADEMIC HEALTH CENTERS’ EVOLVING PERSPECTIVE ON THE DETERMINANTS OF HEALTH

Despite growing scientific evidence and their strong social missions, many academic health centers historically have not embraced the need to address environmental, social, and behavioral determinants of health. Rather, leaders in academic medicine have tended to view many of these determinants of health as other health professions’ responsibility (e.g., public health) or as “societal” responsibilities of government and charitable organizations. Despite this tendency, academic health centers have acted as safety-net providers and offered substantial amounts of undercompensated and uncompensated care to patients disproportionately impacted by low income and lack of access to health care, two of the most powerful social determinants of health.

Recent political trends suggest that public policymakers are likely, at least for the foreseeable future, to limit their efforts to address many of the determinants of health. However, academic health center leaders increasingly view addressing them as a moral obligation and institutional mission, e.g.:

- Educating the public and policymakers about the detrimental impact of the full spectrum of determinants on health;
- Placing greater emphasis on preventive and primary care that specifically targets environmentally, socially, behaviorally, and lifestyle-driven determinants that adversely affect health; and
- Adapting healthcare delivery systems to provide health care more efficiently and effectively to patients disproportionately impacted by the full spectrum of determinants of health.
As this perspective changes and interest grows, academic health centers must confront a long-standing obstacle to assuming greater responsibility for a broader spectrum of determinants of health: the “conventional wisdom” that doing so will adversely affect an academic health center's fiscal stability, putting its already complicated and vulnerable financial foundation at risk.

CRITIQUING CONVENTIONAL WISDOM’S NEGATIVE BUSINESS CASE

Academic health center leaders seeking institutional commitments to address a broader spectrum of determinants of health often encounter the retort that such actions would reduce demand for the tertiary and quaternary healthcare services that constitute a substantial portion of their institution’s operating revenue base. In response, they often have struggled to articulate a viable transition strategy, in a predominantly fee-for-service marketplace that lacks supportive incentives and global budgeting, that would allow them to make the substantial investment necessary to reorganize their business models to address environmental, social, and behavioral determinants of health.

Although “conventional wisdom” asserts that a health system addressing a broader spectrum of determinants of health will experience net declining revenue due to reduction in demand for tertiary and quaternary services as overall population health improves—thereby creating a perceived negative business case against addressing the full spectrum of determinants of health—counterarguments suggest that the negative business case is overstated. Specifically, “conventional wisdom” is a relatively static analysis that does not appear to take into account important economic and demographic trends and interactions.

The more successfully environmental, social, and behavioral determinants of health are addressed, and the healthier populations become, the longer individuals will live and consume health care over their lifetime. While there is likely to be some shift in the types of care required as life expectancy is extended, it is unlikely that patients will consume significantly less care in the aggregate. Addressing certain determinants of health (e.g., reducing violent crime, substance abuse) can produce positive health effects in the short term, which could lead to some short-term reduction in demand for acute care services. However, many of the positive health effects of addressing a broader spectrum of determinants of health will only accrue over the long term. Thus, academic health centers are unlikely to experience any sudden, significant revenue loss in the short term, though there could be gradual downward pressure on net revenue over time.

This modest downward pressure on revenues over time is likely to be swamped by other economic and demographic factors impacting the healthcare system that will push demand in the opposite direction over the same period. In fact, given the timing and strength of those other factors, now may be the best time to conceptualize, build capacity, and make the transition to community/population-based health systems that address environmental, social, and behavioral determinants of health.

For example, the aging of the baby boom generation is expected to greatly increase demand for healthcare services, including acute care services, relative to supply. At the same time, the impending retirement of baby boom generation healthcare providers will decrease supply relative to demand. This demographically-driven cohort effect is likely to place greater upward pressure on demand for acute care services (relative to supply) than successfully addressing a broader spectrum of determinants will reduce demand. Rather than view any reduction in demand attributable to successfully addressing environmental, social, and behavioral determinants of health as a negative, it

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can be viewed as a positive, i.e., as an important tool for moderating health workforce shortages.

In addition, there is no reason to expect the current rate of medical innovation to slow any time soon. New technologies and treatments should continue to create new revenue opportunities for the academic health center clinical function. These new innovation-driven revenue opportunities are likely to offset, at least in part, any revenue loss attributable to successfully addressing a broader spectrum of determinants of health.

Taking all these factors into account, the impact of addressing environmental, social, and behavioral determinants of health on an academic health center’s net revenue over the long term is likely to be a marginal change in the rate of increase in net revenues (i.e., net revenue might grow more slowly than otherwise would have been the case), not a net revenue decline. But even if addressing a broader spectrum of determinants of health results in a net reduction in population-wide demand for acute care services, academic health centers would not necessarily bear all, or even most, of any revenue loss associated with the decreased demand.

The beneficial relationships, community recognition, reputation, and good will that result from addressing environmental, social, and behavioral determinants could prove to be a powerful means to attract acute care patients to academic health centers. Healthcare providers who do not address a broader spectrum of determinants, or who do so less effectively, could find themselves at a competitive disadvantage relative to academic health centers and end up bearing a significant portion of any population-wide reduction in demand. Or to put it another way, if academic health centers addressing a broader spectrum of determinants of health results in excess acute-care capacity, the financial burden of that excess capacity will fall not just on academic health centers but on their competitors as well, and in the end it may be the competitors who bear the brunt of any revenue loss.

**MAKING THE AFFIRMATIVE BUSINESS CASE FOR ADDRESSING ENVIRONMENTAL, SOCIAL, AND BEHAVIORAL DETERMINANTS OF HEALTH**

Because academic health centers often serve as safety-net providers, they provide a disproportionate share of health care consumed by uninsured, under-insured, and publicly insured patients. Although environmental, social, and behavioral determinants of health impact the health status of patients at all income levels, disadvantaged populations are especially impacted by determinants of health related to low income, poor education, and limited or lack of access to care. Thus, effectively addressing these determinants of health to improve the health of, and reduce the cost of care consumed by, disadvantaged patients has the potential to mitigate the uncompensated and undercompensated care costs borne by many academic health centers.

Most academic health centers (like most healthcare providers generally) are not currently part of fully integrated healthcare delivery systems, making it difficult to align internal incentives to support addressing environmental, social, and behavioral determinants of health when individual provider income is largely a function of unit volume. As a result, academic health center leaders have struggled to articulate a viable transition strategy, in a predominantly fee-for-service marketplace that lacks supportive incentives and global budgeting, that would allow them to make the substantial investment necessary to reorganize their business models to address these determinants.

Will public and private payers continue to financially reward unit volume at the expense of the beneficial relationships, community recognition, reputation, and good will that result from addressing environmental, social, and behavioral determinants could prove to be a powerful means to attract acute care patients to academic health centers.”
of quality and prevention? Recent Federal health reforms created demonstrations for testing population-based health care and outcomes-based payment policies. If such a transition is successfully implemented by Medicare, followed by Medicaid and private payers—as some AAHC members believe it eventually will—the revenue impact associated with addressing environmental, social, and behavioral determinants of health versus providing acute care services could shift significantly, changing their relative return on investment compared to current reimbursement policies. Though the concept of accountable care organizations (ACOs) remains controversial—especially as conceived in the context of the current Medicare Shared Savings Program—interest among academic health center leaders in developing private alternatives suggests a view that migration to population-based and outcomes-based payment policies is inevitable, and academic health centers need to develop their own approaches if they are dissatisfied with public policy alternatives.

This interest in private ACO-like approaches is convergent with another expectation: that during the next decade or two, academic health centers will be challenged to re-imagine and re-engineer the design and role of their hospitals relative to their outpatient facilities, as well as their relationships with physician groups. Like all acute care providers, academic health centers are under substantial and increasing pressure to lower inpatient costs, reduce hospital-acquired infections and injuries, and improve quality and outcomes. Given the unavoidable upheaval that will occur as academic health centers shift to a more distributed and less hospital-centric infrastructure, addressing environmental, social, and behavioral determinants of health will be one of many factors that must be taken into consideration by academic health centers when planning for the transition.

By the end of these dual convergent transitions, the ability to effectively address environmental, social, and behavioral determinants of health is likely to be an important differentiator in the post-transition healthcare marketplace. Thus, the strongest business case for beginning to address a broader spectrum of health determinants now is the investment value of acquiring knowledge and expertise, and building infrastructure, before they become competitively essential in the not too distant future.

**IMPORTANT CONSIDERATIONS AND LIMITATIONS**

Even if it is possible to articulate a viable business case for academic health centers seeking to address environmental, social, and behavioral determinants of health, the challenges inherent in doing so should not be underestimated:

- **A primary roadblock to academic health centers addressing environmental, social, and behavioral determinants of health is a lack of knowledge regarding how an academic health center could transition to a new organizational and functional model.** What are the changes required in all functional areas? How should the lack of faculty, research, and infrastructure be addressed? What about culture change issues? What are the associated costs? Each question is difficult and complex to answer. Although many academic health center leaders believe the transition to a population-based and outcomes-based healthcare system is inevitable, the lack of a defined implementation timetable makes planning especially difficult.

- **Most academic health center hospitals and practice plans are not organized as integrated delivery systems, making it challenging to develop effective internal incentives.** While the marketplace continues to spawn new, more virtual, alternative forms of population-based and evidence-based integrated care management—including, for example, ACOs—such approaches are still largely...
unproven and it is unclear how long it will take for them to mature and demonstrate their viability.

- The business case is undermined by payment systems that do not currently provide adequate incentives to address environmental, social, and behavioral determinants of health, and it is uncertain when and how these incentives will be developed and implemented. For example, the benchmarks and incentives at the core of the Medicare Shared Savings Program (as currently defined) do not adequately take into account that environmental, social, and behavioral determinants of health can have a significant adverse impact on health outcomes. Healthcare providers with a case mix that includes a disproportionate number of disadvantaged patients (as is often the case for academic health centers) are likely to experience poorer overall population health outcomes than would otherwise be expected based on severity of illness and quality of care provided. Without some mechanism to adjust for environmental, social, and behavioral determinants of health, these providers will be burdened with a competitive disadvantage qualifying for shared savings relative to providers with a more favorable case mix. This, in turn, creates an incentive to exclude providers with an unfavorable case mix (including academic health centers) from ACOs, and dilutes the effectiveness of the Shared Savings Program's incentives by rewarding favorable case mix instead of superior performance.

This problem is not unique to Medicare ACOs, and should be addressed in any arrangement, public or private, that seeks to offer incentives and reward healthcare providers based on improved population outcomes. Thus, there is an urgent need for dialogue among healthcare providers and third-party payers to develop and implement a viable adjustment mechanism that can be incorporated into reimbursement policies.

- Successfully addressing environmental, social, and behavioral determinants of health is likely to require a significant additional investment in primary and preventive care services. Historically, many academic health centers have focused on providing acute care services in a limited number of centralized locations, rather than primary and preventive care services over a widely distributed geographic area. Therefore, most academic health centers will need to significantly expand their owned or affiliated primary and preventive care infrastructure and staffing. Academic health centers may encounter significant obstacles in pursuit of this objective, including the need to negotiate partnerships with stakeholders who may feel threatened by ownership or affiliation, as well as potential health workforce shortages.

CONCLUSION

As interest grows among academic health center leaders to address environmental, social, and behavioral determinants of health—despite constrained resources and the current economic environment—the return on investment necessary to support those activities must be carefully assessed. Such analysis should include both a forthright critique of the traditional arguments against (which this issue brief suggests are overstated), as well as realistically evaluating the arguments for, addressing a broader spectrum of determinants of health. This analysis must also be future-facing, focusing less on the healthcare marketplace as we know it today and more on the anticipated evolution of the healthcare system over the short and long term. With payment policy on a trajectory towards population-based and outcomes-based reimbursement, and healthcare delivery on a trajectory towards distributed infrastructure with hospitals increasingly reserved for intensive care, effectively...
addressing environmental, social, and behavioral determinants of health is likely to become an increasingly important, if not essential, tool for managing community and population health in the coming post-fee-for-service, post-hospital-centric, not too distant future.

References:

VISION
To advance health and well-being through the vigorous leadership of academic health centers.

MISSION
To mobilize and enhance the strengths and resources of the academic health center enterprise in health professions education, patient care, and research.

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