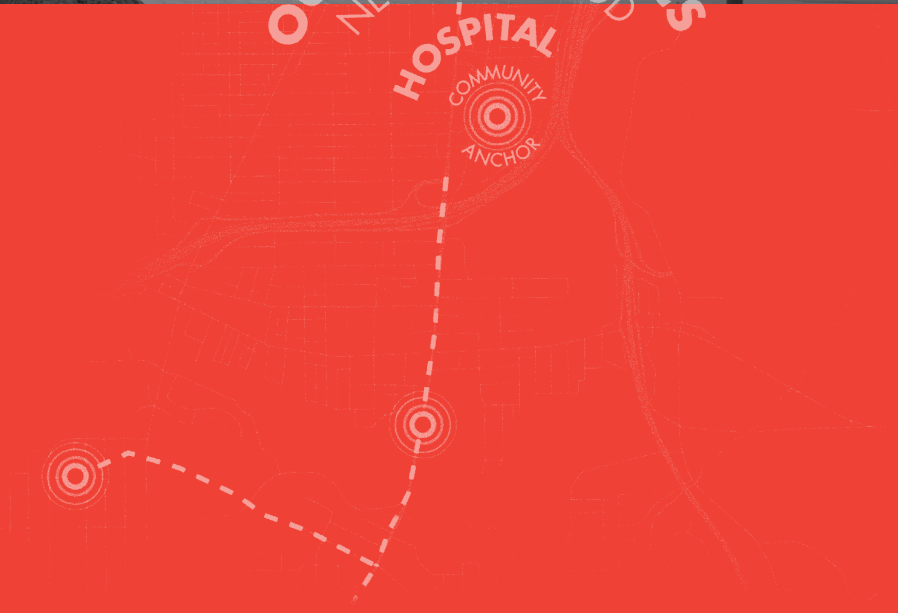


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## Mission of the Academy Journal

As the official journal of the AIA Academy of Architecture for Health (AAH), this publication explores subjects of interest to AAH members and others involved in the fields of healthcare architecture, planning, design, and construction. The goal is to promote awareness, educational exchange, and advancement of the overall project-delivery process and building products.

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## About the Academy

The Academy of Architecture for Health (AAH) is one of 21 member communities of the American Institute of Architects. The AAH is unique in the depth of its collaboration with professionals from all sectors of the healthcare community, including physicians, nurses, hospital administrators, facility planners, engineers, managers, healthcare educators, industry and government representatives, product manufacturers, healthcare contractors, specialty subcontractors, allied design professionals, and healthcare consultants.

The AAH currently consists of approximately 6,954 members. The mission of the Academy is to improve both the quality of healthcare design and the design of healthy communities by developing, documenting, and disseminating knowledge; educating design practitioners and other related constituencies; advancing the practice of architecture; and affiliating and advocating with others that share these priorities.

Please visit the Academy's Website at [www.aia.org/aah](http://www.aia.org/aah), for more information on the Academy's activities. Please direct any inquiries to [aah@aia.org](mailto:aah@aia.org).



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Based Care...Are You Ready?

# Population Health: The Health & Wellness of People and Communities

by MASON COUVILLION, LINDSEY WATERS, AND SHANNON KRAUS

## ABSTRACT

Healthcare and cities in the United States are simultaneously evolving with a focus on the individual and a renewed understanding of health and wellness. As the population becomes more aware of its health, urban areas continue to grow in ways that promote walkability, healthy food choices and green space for recreation and respite. The healthcare industry has an opportunity unlike ever before to be involved directly with the consumer on a near daily basis. By developing a full spectrum of population care points within communities, healthcare providers can effectively address wellness and disease management, minimizing the need for acute care. While more people will find care outside of the acute care hospital, the hospital will remain a staple of American healthcare. The hospital, like the healthcare system, will have to evolve and become more than a destination for sick people. It will need to be integrated into a mixed use wellness district that features not only hospital centric spaces, but also elements that add to the community as whole serving as a catalyst for urban renewal and healthy living.

## ARTICLE

### Population Health: The Health & Wellness of People and Communities

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#### Refocusing on the Individual

Shifting forces in our society are creating a dynamic movement in the way people understand health through the lens of the healthcare system and individual lifestyle choices. The demystification of the healthcare system, partially driven by legislation such as the Affordable Care Act, is pushing healthcare to become more transparent and accessible with an overarching focus on individual health.

On the other hand, a renewed awareness of personal health, as influenced by lifestyle decisions, is bringing greater awareness to how the physical environment influences and supports individual health. Young and old are increasingly driven to locate in urban environments which offer a quality of life that supports a healthier lifestyle. As the country experiences a growth in its aging population, communities will be faced with questions on how to support the health of this population as influenced by urban design and planning. "Thirty-seven percent of (Baby) Boomers indicated that their personal health most influences how long they think they will live" (MetLife Market Institute). This force is pushing urban revitalization efforts in many communities to refocus urban design on the individual.

Just as a city fosters a healthy community through a diverse system of housing types, transportation networks, green space, retail and commercial uses, healthcare is a system of services supporting the health of its patients. "Highly hospital-centric

healthcare systems over-rely on hospital-dispensed care. They have historically tended to undervalue sickness prevention in public education and awareness. In such a system, a patient may not take “ownership” of his/her health condition until it is far too late— by then accruing, by default, very costly hospital-based emergency care that could have otherwise been avoided at far less expense” (Verderber, 3).

## A Wellness Network

As cities and healthcare refocus on the individual, health and wellness becomes the overarching connection. The changing paradigm of the healthcare system requires a shift in focus to create a dynamic ecosystem of locations and services. This moves the focus of healthcare from a hospital-centric healing system to a patient (individual) centered wellness network that interacts with the population they serve on a more regular basis. As healthcare systems grow into their role as wellness networks, the hospital’s physical location and its ability to serve as a community anchor is vital. To be successful, wellness networks will integrate themselves into the community where the population they serve lives, works and plays, becoming seamless in the community, and interfacing directly with the individual.

Population management begins in the individual’s home where technology plays a key role in keeping the patient connected with their providers. As care is

needed, patients should have access to a full spectrum of physical care points embedded into their neighborhoods. These care points range from community care that could be located within a pharmacy, school, or other community center, to stand alone urgent/emergent care centers to the acute care hospital. This spectrum provides opportunities to manage chronic illnesses and population wellness, as well as tend to the most acute patients in the community.

On the far left of the spectrum lies in-home chronic disease management and diagnostic technologies. These systems have great potential to change the way care is managed, and thus shape the way hospitals and clinics are designed. In the coming years, as the computer savvy population ages more of our routine medical tasks will take place in our home. Personal devices will connect patients and their health information directly to physicians. Physician’s practices will need less space to accommodate diagnostic equipment driving clinics to be smaller. The future neighborhood clinic will serve only patients that are screened and determined necessary for them to come into the clinic. The new smaller clinic typology will be more nimble and will be able to infiltrate retail storefronts in community centers.

Neighborhood retail clinics will become the community interface for health networks serving as the first touch point for the individuals. These retail clinics will have minimal diagnostic and treatment services driving it to function as a community center for health education and well patient care.

The new retail clinic typology is a perfect candidate for adaptive re-use in urban environments. Retired storefronts on main street America can be revitalized providing a physical interface for the health network within their community. The key to retail clinics is accessibility and being a welcoming environment. It is imperative that patients want to enter the clinic and seek care and advice on wellness. As healthcare designers we need to look for inspiration in the retail industry where design reflects the need to bring customers in the door, and make them comfortable once they are there.

Retail clinics are the first place for a physical connection between providers and patients. They are the one stop wellness shop that provides accessible care within any given community. More acute patients or patients seeking treatments that cannot be delivered at the retail clinic require a more clinical environment that is still accessible. Ambulatory surgery centers and free standing emergency departments serve these patients. They provide non-hospital environments that

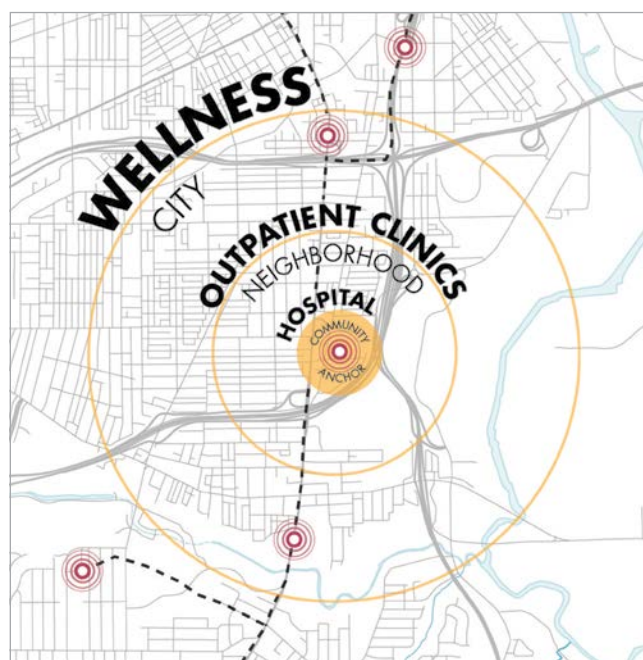


FIGURE 1: A Scaled Healthcare System. Credit: HKS.

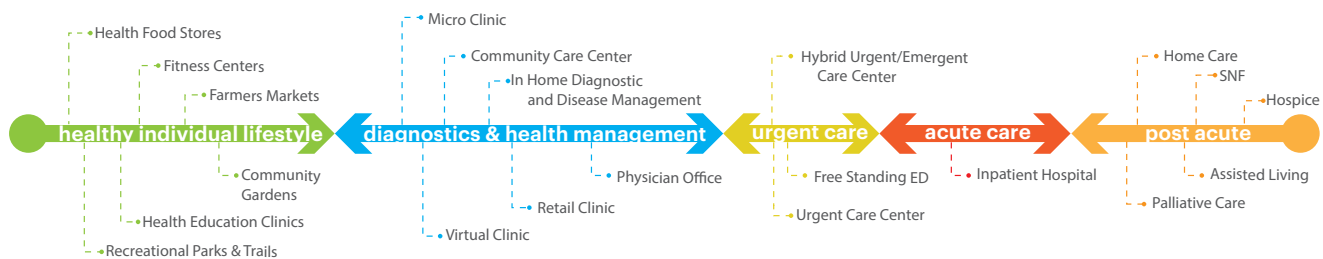


FIGURE 2: Spectrum of Care Points. Credit: HKS.

emphasize accessibility and quick care. These centers can be shared between several smaller communities. These larger care centers need to be situated to provide physical connections to the communities they serve.

By integrating into the community, the wellness network becomes a part of the daily lives of the individuals. As the wellness brand grows throughout the community, it is even more important for the hospital to avoid the stigma of being the place you go when you are sick. Although hospitals will always serve the most acute cases, they should also be a part of the community at large and incorporate other aspects of the wellness network in their physical location.

The parallel shift in urban design towards strategies that support healthy living through healthy places also operates at several scales. On a regional and political level, healthy cities support diversity, affordability, mobility and a robust economy. It is also important to consider the scale of the individual. Individual health in communities is supported through pedestrian-friendly streets that promote walkability, small scale grocers and farmers markets with healthy food options, distributed neighborhood parks for recreation and green housing with better indoor air quality. A renewed focus on health is increasing the livability of and changing priorities in what constitutes good place making. Wellness networks within the healthcare system can also influence and contribute to healthy communities.

## The Wellness District

The hospital lies at the acute end of the wellness spectrum. The hospital will always be the place where the highest level of acute care is provided and the majority of specialists are located. However, the hospital does not need to remain introverted and purely focused on treating illness. Like cities, hospitals have the opportunity to be more accessible to their populations and become active centers for health and wellness. Hospitals should be vibrant community centers where people

gather to partake in a healthy lifestyle, rather than solely a place to go when someone is sick. Being a place of respite and activity will reduce the anxiety associated with hospitals. This subsequently makes getting care at a hospital more comfortable and less stressful, which studies have shown to be directly related to recovery time.

The design and planning process of a community anchored hospital should prioritize the following four overarching goals, while keeping in mind early planning with key community partners is critical to success to generate community ownership and support.

First, the location of a hospital and its connection to a public transportation network is a major key to building community connections across a broader context. A site with multimodal connections enables accessibility to a more diverse demographic while also encouraging sustainable methods of transportation. A site's connections to public transit may further support successful mixed use development within or in proximity to the hospital. Initial siting studies should consider how the hospital becomes an anchor in regards to the needs of its population. Understanding the population and generating a preliminary plan for community engagement early in the process can help drive a siting strategy for the hospital to better serve as an anchor in the community.

Second, at the scale of the building, opening up to the community begins at the ground level of the hospital. The front door of the building should open to and engage the public by creating an inviting entrance. The primary entrance of the hospital is an opportunity to embrace its surrounding context with public amenities such as a park or plaza that invites surrounding neighborhoods to utilize the space. Green spaces and healing gardens act as links to the community, hosting markets or occasional exercise classes to again, put healthy living on display while engaging the community.

Third, and perhaps less to do with the physical environment is programs and outreach. Methods for



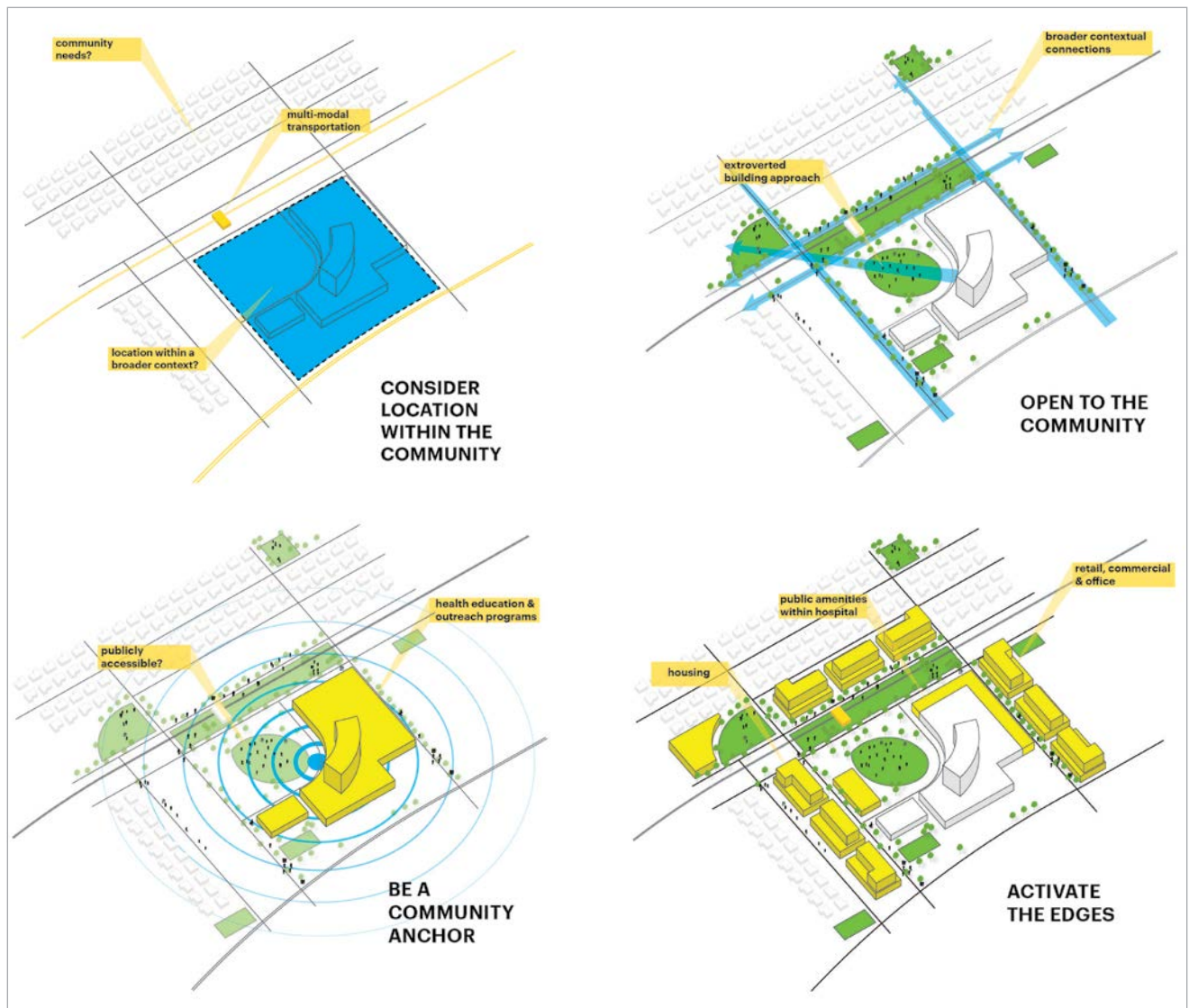


FIGURE 3: Place Making with Hospital as Community Anchor. Credit: HKS

local health engagement may include fitness classes, nutrition education or providing a community classroom for public meetings for other local health related organizations. While classrooms and public resources may be integrated into the ground level of the hospital, a distinct entrance for these amenities may better encourage public accessibility.

Lastly, outside of the hospital walls the neighborhood that it creates or supports should work in harmony with the facility to create a sense of place through pedestrian oriented streets and a mix of uses. Retail and commercial ground floors may be oriented to support population health and wellness uses or depending on the needs of the local community may better serve as other needed programs. The hospital's integration

beyond its site boundary is key to better serving its population and truly becoming a community anchor. Wellness related retail and healthy dining located within the doors of the hospital may serve as amenities, bringing people in and demystifying the hospital.

The hospital is a catalyst for development whether planned or unplanned. The traffic a hospital generates brings marketable value to an area and by default, increases surrounding property values. The key is for a hospital to leverage this development value by capitalizing on the ability to direct future plans which support the hospital and guide thoughtful place making. This does not imply more expensive building solutions, but rather suggests making trusted partnerships with the surrounding community and a developer to help guide a workable vision.

## A Community Anchored Response

A community anchored response can be successful in an urban or suburban context. A project's success is determined in its focus towards the changing paradigm of health and wellness rather than the hospital as the center of care. The following is a compelling example of a suburban typology which takes into account the four place making goals. Located on the outskirts of the city boundary the facility reflects a vision for a single delivery system that will represent the present and future state of healthcare. It is characterized by a mixed use campus that will serve to enhance community health, wellness and prevention in state-of-the-art, lean and efficient facilities. The phased development will include medical offices, retail space, restaurants, a hotel, and office space.

Early in the planning phase campus design principles were established to guide development of the hospital and future phases of the mixed use components. The design principles focus on creating a vibrant public realm through connectivity, a mix of uses, walkable streets and neighborhoods, a campus-like feel and stylistic building diversity.

The campus is zoned into “neighborhoods” of distinctive character. The Hospital Campus is located at the heart of the development, opposite a nature park. Hotel and retail components anchor one edge, while offices anchor the opposing edge of the campus. In addition, a mixed-use commercial neighborhood includes ground floor retail, restaurants, and medical offices in support of the hospital. Buildings are planned in such a way that they front onto streets forming defined built edges, with storefronts lining the street.

Landscape and nature connections play an important role in creating healing spaces throughout the development for public use and in proximity to the hospital to enhance the patient experience. A scaled variety of spaces include a community park with wetlands, an entry park and plaza, healing gardens, pocket parks near retail and an outdoor dining terrace for patients. These green spaces fuse seamlessly with the urban character of the campus to create an inviting experience for patients and to serve as an amenity for the local community.

In addition to campus-wide design principles, architectural design principles were established to guide the future development of the mixed-use buildings.







FIGURE 4 (opposite and above): A Suburban Typology.  
Credit: HKS



Architectural principles for the primary retail boulevard are intended to shape and enhance the pedestrian experience. While each unique building contributes to the character and vibrancy of the neighborhood, a pedestrian's experience is largely shaped by a building's ground floor. The principles set a framework to guide the character and experience of the neighborhoods while still allowing for stylistic diversity from building to building.

#### **Design Principles:**

- Connectivity
- Mix of Uses
- Walkable Streets & Neighborhoods
- Campus-like Feel
- Stylistic Diversity

As the hospital turns itself out to the community, the community will more readily find itself inside the doors of the once ominous and confusing hospital. This will make it more important for the hospital to be designed in a way that instills the same sense of health and wellness individuals have come to expect from their communities.

#### **Cities, where is your healthcare? Hospitals, where is your community?**

The future impact of hospitals to create places that support individual health lies at the fusion of urban design and healthcare wellness networks. Healthcare will be a key component of urban design in creating healthy places. Advocacy within the healthcare system will need to refocus on the hospital's value as a community anchor. Healthcare and urban design issues range from the scale of the individual to the scale of the collective system. Looking towards the future of healthy communities and individuals, a coherent plan to encourage health and wellness infused at many scales will be most

successful by forming alliances between healthcare leaders and city leaders.

Three big ideas emerge out of a wellness focused approach. First is the broader scale concerning a health and wellness network with a spectrum of care points. Second, a wellness district should be established with a long term vision and lastly, designers and planners must continue to consider how to optimize and plan for technology within wellness networks, districts and the hospital itself. The implementation of these ideas demand early planning and decision making with an integrated team of planners, designers, community members and leaders. A community centric approach focused on catering to the unique needs of its population should ultimately serve as the guiding framework for the project.

In the future, cities will ask questions regarding healthy place making and "focus more on the 'urban' of urban design, and become less infatuated with the 'design' of urban design. Urban design must begin with cities: how they work, how they change, and what impacts they have in creating enabling versus destructive impacts" (Inam, 20). Healthcare systems must ask themselves a similar question, "where is your community?" And "what impact could the system have in creating enabling versus destructive impacts?" to not only support a community, but to be a *catalyst* for enabling healthy lifestyles.

#### **Healthcare as a Community Anchor: Three Big Ideas**

1. A wellness network must be established as a spectrum of care points, interwoven into communities, engaging with them and be easily accessible.
2. A wellness district should be established with trusted partners in the community to spur development and create a long term vision that will revitalize and renew towns and neighborhoods by providing a variety of amenities
3. Wellness networks need to consider and be optimized for technology, as it will continue to drive innovations in bringing care out of the hospital and into community care points and the home

## References

- American Institute of Architects. (2012). Local Leaders: Healthier Communities through Design. Retrieved from <http://www.aia.org/aiaucmp/groups/aia/documents/pdf/aiab096790.pdf>
- Inam, A. (2008). Meaningful Urban Design. In D. Kelbaugh & K.K. McCullough (Eds.), *Writing Urbanism* (pp.14-23). New York: Routledge.
- MetLife Mature Market Institute. (2009). Insights Into the Oldest and Youngest Boomers. *Boomer Bookends Study*.
- Stanwick, S. (2008). Making places, healing spaces. *World Health Design*, 36-41. Retrieved from [http://www.farrowpartnership.com/images/stories/articles/O2-health-wellness/WHD\\_CVH.pdf](http://www.farrowpartnership.com/images/stories/articles/O2-health-wellness/WHD_CVH.pdf)
- White, D. (2010). Joining Healthcare Planning with Urban Planning. *Healthcare Design*. Retrieved from <http://www.healthcaredesignmagazine.com/article/joining-healthcare-planning-urban-planning>
- Verderber, S. (2012). *Sprawling Cities and Our Endangered Public Health*. New York: Routledge.



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