

Healthcare Off the Grid: What We Can Learn from Food Truck Markets

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It's the middle of the day at 10th and Oak Street in downtown Oakland, California. Usually, not much happens at this intersection. A few homeless people pushing carts towards the encampment down the street and a smattering of commuters rushing to the BART train station a block away make up most of the foot traffic. Oakland is one of the most dangerous cities in the US: people who don't live in the more affluent hills tend to stay in their homes.

But today is Friday, and Off the Grid is setting up the weekly food truck market that it began here two years ago. A row of orange cones closes off the street. A whole series of trucks gradually line up, like a wagon train circling up in an old Western. As the sun sets beyond the San Francisco Bay, smells of garlic noodles sizzling on a pan and crème brûlée being blasted with a blowtorch start to float in the air, luring workers and young families out into the street. Lines quickly grow in front of every truck. In a few hours, a band will start playing at the Oakland Museum of California down the street, and its back patio will turn into a makeshift dance floor. In the space of a day, an urban desert becomes a vibrant community.

What does a food truck market have to do with healthcare architecture? There are three key things that healthcare architects are failing at: we create places that treat illness instead of promoting wellness, plan spaces that assume patients are passive bodies instead of active participants in their own health, and design buildings that are obsolete by the time they are built. So far, we have tried to improve the status quo by designing spaces that feel more like hotels and spas, by throwing a light switch above the patient's bed and a foldout couch in the corner for a loved one to crumple into, or by assuring that the buildings we design are flexible. But these are tepid attempts that just gloss over the real problem without really addressing it.

Off the Grid is a company that operates food truck markets in the San Francisco Bay Area, and it offers a few lessons for healthcare architects. Off the Grid gets people out of their homes and in touch with each other, which has been proven to promote health and wellbeing. It knows what its customers want and where, because it uses social media to inform as well as get feedback. It is able to change in real time because it uses mobile units to create agile space that can relocate and reconfigure as needed. The healthcare industry and the spaces we create for it are in dire need of an Off the Grid approach.

Spaces that Promote Health Rather than Treat Illness

Healthcare buildings conjure up images of long corridors where people are wheeled around on gurneys, or rooms where patients wait on an exam table covered in a giant paper napkin. But shouldn't healthcare be more about taking care of people's health, rather than treating their illness?

Healthcare organizations are realizing that the real savings in healthcare come from keeping people healthy. And one of the key things that affect people's health is their lifestyle. In 2012, Dr. Muntu Davis, Public Health Department Director in Alameda County, California, published a study titled *Improving Community Health: A Framework for Achieving Health Equity*. His study found that a lack of safe open spaces for physical activity and poor access to healthy food were tied to health problems in underserved communities. Residents in the more affluent, hilly areas of the county, who live in safe neighborhoods and have access to healthy food, utilize less health services. It is the people in the flat areas, who shop at corner stores stocked with inexpensive junk food and who are virtual prisoners in their own homes due to the violence outside, which consume the most healthcare services.

As healthcare architects, we need to focus on creating spaces that promote wellness rather than trying to dress up illness warehouses as five-star hotels. Off the Grid activates communities and brings people out of their homes and into the street. What if, to get people active and keep them healthy, we designed parks instead of clinics? An empty lot can easily be turned into a park, with walking paths, sports facilities, and play structures. During the day, trucks with portable clinics can plug into docking stations to provide services tailored to the community, including specialty care such as pediatrics, OB/GYN, or oncology. The type of clinic operated could be flexible, based on population health data combined with consumer feedback. In the afternoon, the trucks would unplug, freeing up the open space so that people in the neighborhood can enjoy playgrounds and basketball courts, and jog or walk along the paths. On weekend mornings, a farmer's market with more plentiful and healthful food choices might occupy the space. Such a space would promote physical activity as well as human interaction—two factors essential to wellness—and at a fraction of the cost of building a clinic or a hospital.

Spaces that Respond to Empowered Consumers

With Internet access and interactive health apps, the days of the passive patient are gone. Instead of sitting timidly on an exam table, patients today are armed with their own research, obtained from web-based symptom checkers like mayoclinic.org or webmd.com. After their appointment, some log into Healthgrades or Yelp to share their experience with other consumers. What was once limited to traditional consumer industries—people having a voice, and businesses listening to their feedback and changing in response to that feedback—is starting to penetrate healthcare delivery systems as well.

In the same way that its moveable parts enable Off the Grid to easily change in response to its customers, healthcare spaces should be able to adjust based on patient feedback. Providers can use that feedback to transform themselves in response to changes in technology, patient needs, and healthcare delivery. To create these changeable spaces, architects need to think more like industrial designers. To not think simply of buildings, but of objects that define space—and to think of space as a fluid thing that can be reconfigured based on real-time feedback.

Space that is defined by mobile units can reconfigure and relocate based on consumer need. If a cluster of diabetic patients is identified in a certain neighborhood, a mobile clinic can be configured to offer treatment and education. Configured as a pediatric clinic, the mobile unit can move to a community park. Or a mobile geriatric clinic could visit areas with large retiree populations at certain times of the week. These mobile structures could be connected by websites where people can fill out surveys, learn about which clinics and markets will be available on any given day, trade advice about how to deal with chronic conditions, and even organize community events like yard sales and barbecues.

Spaces that Respond to Change

There is always a point in a healthcare project when architects sit across hospital administrators in a boardroom and have to answer the question: what will happen in five or ten years when our project is about to finish construction and it's time for us to buy equipment, and everything we can buy at that point is different from what you have drawn for us today? And the building needs will invariably change: a radiology room has to be enlarged to fit an MRI, or a clinic has to be redesigned to accommodate a new model of care. Oftentimes, services move out of the hospital setting as technological advances make it possible for procedures to be performed in an outpatient setting. Our stock answer to our clients' concern about change is that we are designing a flexible building that can change with their needs. But is hammering down drywall and perforating concrete slabs really flexibility?

Some major healthcare systems are realizing that the way to deal with inadequate facilities may be to build no facilities at all. They are instead bringing services to their customers through information technology, hoping to keep them out of hospitals as much as possible. In 2013, Kaiser Permanente, one of the largest healthcare systems in the US—widely regarded as a model of progressive healthcare delivery—unveiled a video illustrating its vision of *Imagining Care Anywhere*. That vision, where people get care in mobile clinics and check their symptoms and treatments on their smartphones, and clinicians show up at patients' homes with tablets, is about using technology to enable real-time care, anywhere it is convenient.

If consumers getting care through their smartphones is the future of healthcare, will healthcare architects still be relevant? In order to stay relevant, we need to reassess our idea of what kinds of spaces healthcare happens in, who occupies these spaces, and what healthcare means overall. The spaces we create have to be able to change in response to technology, patient needs, models of care, and consumer feedback. We should think more in terms of food trucks, "parklets" and shipping containers, rather than concrete, steel and drywall.

Rethinking Healthcare Architecture: Forms Chasing Function

It's an exciting time in healthcare and in architecture. The Internet is increasingly eroding the importance of location, and technology is constantly changing healthcare practice. This situation makes it an unsettling time to be an architect, but along with the uncertainty comes an opportunity to reimagine our role. We are creators of space, and space is defined by what happens in it, not by encasing it in rigid boxes. The definition of architecture does not mandate that the forms we create to contain space be inert and anchored to the ground. In fact, abandoning that notion may help us create spaces that respond better to today's dynamic relationship between form and function.

Just like Off the Grid can turn an empty parking lot into a bustling market, moveable structures can turn an empty space into a space for wellness. As architects, we can build on this idea of itinerant structures that roam the city transforming spaces. And with our ability to infuse space with meaning, we can design these structures to create experiences that inspire people to live healthier lives. We can take Off the Grid's power to temporarily transform space a step further if the moveable structures we create leave a footprint behind after they're gone, permanently transforming the space they occupied and leaving seeds of positive change.

The architect's innate talent for organizing chaotic and opposing forces into coherent wholes can be invaluable in solving the challenges of the healthcare industry. If we can negotiate structural forces and infrastructural and human needs, navigate the complex political currents that come from our clients and their communities, and in the end produce functional and beautiful million-square-foot buildings, we can certainly make a complex system of moveable structures to serve an industry as unwieldy as healthcare.

The corner of 10th and Oak is just a few blocks away from East Oakland, ground zero for crime and murder in the city. But on any given Friday night, people are lining up to eat local food, a samba group is playing, and children are dancing. To stay relevant, healthcare architects should take note. In today's world of virtual connections, we may want to stop looking at hulking structures of concrete and drywall as the ideal. We may find that a caravan of food trucks has just the inspiration we need.