



Mid-Patient



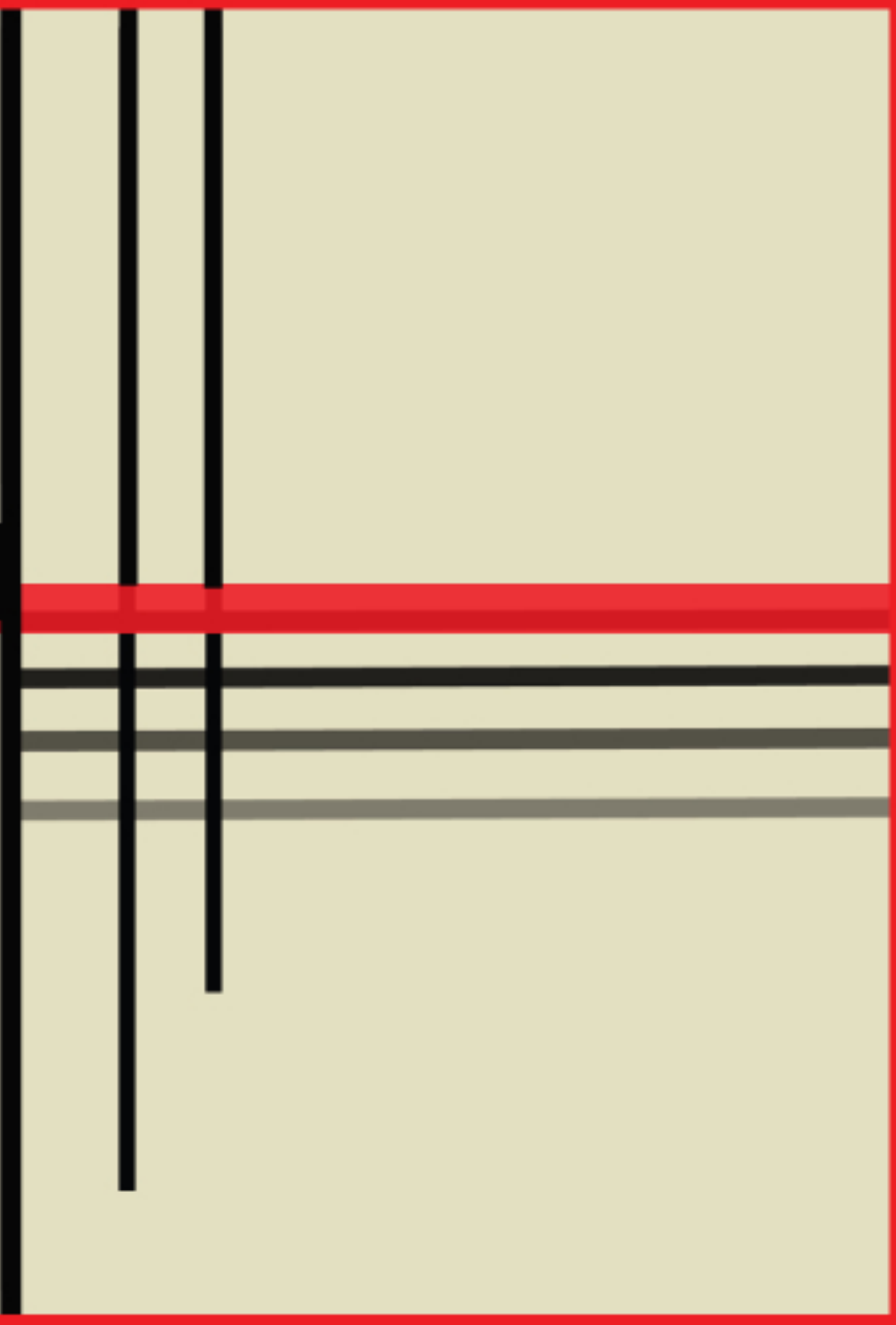
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Thesis



In recent years, around 48 percent of non-hospital healthcare establishments employed fewer than five workers. In contrast, 72 percent of hospital employees were in establishments with more than 1,000 workers. The healthcare industry includes establishments ranging from small-town private practices of physicians who employ only one medical assistant to busy inner-city hospitals that provide thousands of diverse jobs. This is in connection to the rapid growing populations in big residential cities. The growing population living closer together gives rise to illness, diseases, injuries, and family medical needs. Since the hospital provides complete medical care, ranging from diagnostic services, to surgery, to continuous nursing care, there is a need of a smaller version of it. The medical care has to be more mobile and flexible enough to handle the density of a decreasing populating city. Residential care facilities provide around-the-clock social and personal care to children, the elderly, and others who have limited ability to care for themselves. Workers care for residents of assisted-living facilities, alcohol and drug rehabilitation centers, group homes, and halfway houses.

The hospital's complete medical care system can be combined with the Residential care facilities provision, around-the-clock social and personal care. The purpose of this thesis is to establish a system of Architectural designs for combining the hospital and medical center together in a way that will benefit the city in a multiple deployment of mobile units. It is also to redesign how the patient is viewed, assessed, interviewed, and in formatting a diagnosis. How can this newly generated Mobile hospital/Residential service generate new designs to fit or be modeled after the residential city family? The Residential family Medicare can also shift the medical service from the original idea of what a patient could be considered. Can a whole family be considered a patient? If so, how will that shift the Architecture of the office, patient room, social relationship of staff and patient, and service aspect of time and place? How will this change the medical job industry? What kind of skills will be needed to adapt to this unique process?

Health care in America has come a long way in the last century. The system of health care is really a combining contributor of resources, finance, and research. Despite this contributor the health care service has failed to reach certain services that are the corner stone for keeping each neighborhood, community, city, and state healthily. One of the first attempts by doctors to help the growing early American population in care was door to door service. This service was very personal, where doctors would stay in contact and become part an essential part of a family. This family doctor knew very well his family's history of medical problems, concerns, and behaviors. This service kept the family together mentally and helped strengthen their bond. But one of the many weaknesses of this kind of service was a lack of resources of other people, technology, and research. Also this kind of care had limited this doctor to only a few served families. The rest of the community still needed health care, but the doctor could only service so many during his life span. "Over the last few hundred years, doctors came to benefit from the use of developing sciences such as chemistry. Physicians began to access other disciplines to help heal patients. They also began to draw on multiple facets of medicine to cure ailments. Among the goodies at the disposal of 19th Century doctors: knowledge of evolution, psychiatry, the beginnings of genetics, and immunology."1. The development of sciences, like chemistry, had also brought together groups of doctors and researchers that were now able to help and serve the community on a larger scale. The most important aspect of this was a higher success rate in curing the ill. People started to depend more on the knowledge and service of the health community rather than the church. This became a big split in how America viewed health and mortality. The church was still important in the curing process, but science and service from it became more defined. Finally, after the 1920's reliable prescription drugs and penicillin began to restrain disease before surgery or other last resorts. Modern surgery was coming of age. The question now became how to deliver health care service and receive patents easier?

The complex answer still remained in technology development. The car became just as important as the science of medicine and procedures. Vehicles were able to pick up and deliver a higher volume of people from around the city. This pushed the doctor somewhat out of the home and into a specific organized area of operation. The clinic has its own history of development, but in this frame of discussion it is seen as the next stage of delivery service. A step above a single doctor's office, the clinic still provided family service, but now removed from the home. The clinic was still vitally part of the neighborhood because it was located in smaller business building. The clinic helped organize time for patients, gave the doctor a reliable staff, and paved the way for hospitals.

The best-known type of hospital is the general hospital, which is set up to deal with many kinds of disease and injury, and normally has an emergency department to deal with immediate and urgent threats to health. A general hospital typically is the major health care facility in its region, with large numbers of beds for intensive care and long-term care; and specialized facilities for surgery, plastic surgery, childbirth, bioassay laboratories, and so forth. Larger cities may have several hospitals of varying sizes and facilities. Some hospitals, especially in the United States, have their own ambulance service. Many of these hospitals were still funded by religious organizations. So, the three main players in health care grew together the technology, delivery service, and involvement of the community, like churches. The continued development of delivery has now formed three main services that are still in use today. Homecare, clinic, and hospital services are very well established, but these services are only able to deliver a insufficient amount of services to the public . Why are the clinics and hospitals only able to meet a limited number of communities? What are the services, technology, and resources available in each system? In order to understand what these systems are lacking, we first must know and define what they are.

The Inpatient and outpatient are part of the same health care system, but apart in service, excess, and technology. "Inpatient care is care given to a patient admitted to a hospital, extended care facility, nursing home or other facility. Long term care is the range of services typically provided at skilled nursing, intermediate-care, personal care or eldercare facilities." 2. Outpatient care is any health care service provided to a patient who is not admitted to a facility. Outpatient care may be provided in a doctor's office, clinic, the patient's home or hospital outpatient department "Outpatient treatment in a doctor's office or clinic, often supplemented by medications administered at home, remains the norm for most routine care. Thanks to advances in treatments and technology, many tests and surgical procedures formerly conducted in the hospital can be done in an office setting. Outpatient care also provides the norm for most mental health and chemical dependency treatment." 2. Most hospital diagnostic imaging departments in fact perform imaging of outpatients in an inpatient setting (inside the hospital), but the outpatients are fully ambulatory and do not have to be formally admitted to the hospital in order to have the exam.

Inpatient rehab is the most hands-on form of treatment, when an addict resides in the treatment facility and is monitored 24 hours a day, as the person fight addiction. In inpatient rehab, following detox, patients usually receive different forms of treatment that can include therapy, group therapy, discussions on sober life and assistance in living a life of sobriety once released. "Most inpatient rehab is voluntary and only in severe cases can a person be forced to attend. Once admitted, almost every hour of the patient's day is filled to help them fight their addiction and keep their mind on staying sober. Inpatient treatment can range anywhere from a couple of weeks to a several months, depending on the patient and level of addiction."3. Some patients transition to outpatient treatment and become integrated back into the world slower than others.

Outpatient rehab is another, often effective form of treatment for those fighting substance abuse. Similar to inpatient in its methods, outpatient is when the patient receives treatment at the facility, but does not live there. Much like inpatient, outpatient patients will receive daily treatment at the center, which will usually take up a large portion of the day to keep them constantly focused on recovery. "Outpatient rehab ranges in length much like inpatient, but is a cheaper alternative in most cases. Most outpatient patients also attend other forms of treatment, such as Alcoholics or Narcotics Anonymous meetings to keep them focused when they are not at the facility." 3.

Inpatient hospitalization makes sense for major surgical, diagnostic or therapeutic services, where the patient's condition or reaction to medication must be closely monitored. In the case of mental health treatment, a hospital stay may make sense if the person is suicidal or self-destructive or poses a threat to others. Inpatient hospitalization also allows a combination of individual care, group therapy, activities and community meetings.

"Outpatient hospitalization takes advantage of hospital equipment and expertise during a visit, but without the expense (or life disruption) of an overnight stay."2. Logistics also play a part in the choice of outpatient treatment versus inpatient care. Not only does outpatient care offer added convenience to the patient, it also assists the admissions departments in hospitals, as there are often not enough beds to cover stays for routine procedures. "As the shortage of beds seems to be prevalent in hospitals throughout the U.S., it makes more sense to increase outpatient services and provide inpatient care for people with more chronic conditions."4.

The systems of inpatient and outpatient are vital to the health care system, but the gap between the two services and delivery must be filled with a programmable option. This option will provide the desirable family care and growing need in areas where there are not sufficient outpatient and inpatient focus post. This thesis will help provide a mid-patient service and delivery that will help low income neighborhoods with vital health care needs. This thesis will also challenge today's definition of what a patient is and the primary function of the family. The patient can become the family as a whole which will diagnose and treat not only the physical aspect of the body, but also the psychological requirements of the family. The family as a patient in the mid-patient system will become the missing piece of the overall healthcare system. Transportation, baby-sitting, family based programs, and information sharing among the community will give families a base to build their overall health outlook for future generations to come. In order to implement this new mid patient system, the community and family's requirements must become apparent and addressed. What are the essential health issues in the community and how does this affect the understanding of health concerns in each family?

The two essential health care issues have been discovered to be financial support from communities to families, and access to important healthcare facilities. The community today has become a barren region for available financial support to their citizens. This has forced the government to become the main support for struggling communities. The support from the government to the community becomes the support to the family. But, the government financed programs are only available for certain types of families.

"Many children who receive Medicaid were enrolled because they have a parent who receives public assistance. Because public assistance has traditionally been offered primarily to single mothers and because family structure may influence the ability of parents to obtain health care for their children, family structure is an important aspect of children's access to health care." 5.

Some research has been done on this connection of accessibility of government sponsored programs and identifiable types of families. The low income based single parent family has become the main focus of these systems.

“At high levels of maternal education, family structure did not influence physician visits or having a usual source of care, as expected. However, at low levels of maternal education, single mothers appeared to be better at accessing care for their children. Health insurance coverage explained some of the access differences by family structure. Medicaid is important for children of single mothers, but children in two-parent families whose mothers are less educated do not always have access to that resource. Public health insurance coverage is critical to ensure adequate health care access and utilization among children of less educated mothers, regardless of family structure.”⁵.

So what is available for the rest of low income educated and non-educated types of families? There are two kinds of low income parents; one's who have a high school degree and others who don't. Both types are unable to achieve a higher paying job to secure a healthy income. Since low-income families are not able to earn enough money for health care they will likely end up either on government funding programs or just go without it, unfortunately. This gap of service and delivery must be filled and implemented for the community to mend as a whole. The design of the mid patient will be geared towards helping all low income urban families in a system which is accessible and affordable. This system will address key health concerns unique to low income families in America. So what are some of the main concerns that plague the low income community? How is low income connected to the well being of its inhabitants?

Health problems are more prevalent among low-income working families. In Detroit sixteen percent of full-time workers in low-income families report fair or poor health, compared with 7 percent of workers in middle-income families. Low-income adults working a moderate amount are even more likely to have health problems, with 25 percent reporting fair or poor health. Health problems may be contributing to their limited hours of work. Low-income families are also more likely than middle-income families to have a child in poor health. Also among low-income families, the parents with no employment in Detroit has more than one third (36%) reported illness or disability that prevented them from working. Poor health and the ability to work, becomes a cycle of continue decline of well being in Detroit's low income communities.⁶.

Five areas of health care high risk in the Detroit low income neighborhoods that will become the focus of the thesis systems are dietary, cancer, diabetes, immunization, and respiratory care. Dietary is well connected to the other four and becomes a key factor in controlling the heightened risk involved and caring for the body to avoid future problems.⁷ Ismail study completed a study that had examined the relationship between dietary patterns and caries experience in a representative group of low-income African-American adults. The Participants were residents of Detroit, Michigan, with household incomes below 250% of the federally-established poverty level. Some of the results from this study showed that soft drinks are the major individual-level determinants of caries in this population. Also the data shows that this is a severely overweight population. "Having nearly three-quarters of the predominantly-female participants either overweight or obese is well above the national average."⁸ Dietary quality is poor by several measures. The proportion of energy from fats is above the level recommended by the US Department of Agriculture, while the carbohydrates and protein levels are near the bottom of the recommended range. The continued consumption of sugar in the diet has pushed diabetes to the forefront of issues plaguing the community.

Diabetes in Detroit have forced the health community to take action, but the action taken is not sufficient enough to slow down the problem among the low income African American population. "Underlying the problem are complex factors—genetic, physiological, psychological, familial, social, economic, and political—coalescing to over determine these conditions. These interacting factors include events occurring during fetal life, maternal physiology and life context, the thrifty genotype, the nutritional transition, health impact of urbanization and immigration, social attributions and cultural perceptions of increased weight, and changes in food costs and availability resulting from globalization."⁹ Clinicians will have to get out of the office, and health care institutions will have to reach out through community collaborations. Economic and social factors may limit patients' abilities to make changes in diet and exercise without a prior intervention at the community level.

Community-based nutritional health and activity interventions have the potential to make a modest public health impact. Many different kinds of communities have had success in fostering community gardens, opening farmers' markets, increasing children's exercise through walk-to-school programs, promoting safe bike and walking paths, and altering the foods available in school lunches and snack machines. At the larger political level, consumers and professionals can become involved in national efforts to reduce advertising of foods to children, especially on television, putting taxes on junk foods with revenue to support availability of fresh fruits and vegetables, improving the nutritional quality of foods aimed at children, and pushing for a code of conduct for the food industry.

In order to address many health care services and delivery issues to low income neighborhoods, a series of components making up a new delivery and service system will conform to the community's needs. This will be the focus of the design project for the thesis. They will not replace the hospital and clinic's usage, but enhance the effectiveness of their strengths. The areas of influence or enhancement that the components will focus on, is the standard procedure that the health professions use throughout their practice. This standard procedure is categorized in three stages the preventative, the diagnostic, and the treatment. They are redefined and implemented in a certain way that will benefit the low income community the most.

The preventative component can be the most moveable, delivery that is flexible of service and brings the healthcare to the family. This component can travel from one neighborhood vacant lot to another underserved area in a two day period. This is dependent on the neighborhood's needs and how long it will take to help that area recover from major health risk. It provides the entire first offensive for fighting or informing against common health problems in low income families. This stage sets the standard for the rest of the system and keeps the system effective on the family scale. The five main usages of the preventative component will address cancer, diabetes, immunizations, respiratory, and dietary care. Each mobilized unit will address each problem specifically in the form of shots, research, screening, exams, and provide one on family care. These mobile units will also be in full contact with local clinics for specific services including, patient updates, technology information, new preventive techniques, and for a uniting network of health service. Since this unit will be the smallest and first defense in the system, it can be relocated by a motor vehicle mainly a truck with u-haul ability. The main goal for this component is to address low income families health issues before they become a bigger financial, emotional, and health problem.

The 2nd component is a medium design for delivery and service stage that addresses the family's diagnostic phase. This component becomes a community service and planning center. This center will help families deal with the emotional, psychological, and everyday needs of a person or persons diagnosed with a disease. If the preventative stage does not catch the issue before it becomes a major problem then the family will still report to the hospital for proper diagnoses and treatment. The diagnostic component will accompany this process with supportive programming such as babysitting, life coaching, medical researching, therapy, coping abilities, and family counseling. In this stage of the system the component will supply the preventative units with health supplies, medical research, and logistics support. When the unit is finished serving the community for that day, it can return to the diagnostic component for docking and debriefing.

This level of family service will become a guiding character that will focus its energy on controlling the stress on the family and the response from the life changing diagnosis of the family-patient. The diagnostic phase becomes the mediator and coordinator with the hospital care and the family. This is also performed in a manner of relaxation, which is a major goal for this component. The unit can be disassembled and reassembled as needed. This is dependent on the community's needs in a certain crisis area. The time frame for this can exist from a year to two. This allows the unit to relocate and target in on the most critical health zones. The preventative component will accompany this movement by serving nearby neighborhoods around the diagnostic center.

The last stage of the system relies on the treatment component for body and mental communication within a programming style dialogue. This unit is the largest of the three in programs, support, range of service and delivery, and square feet. This center could be located on corner condition, taking up three to four lot size areas. This unit will also become active in a mixed range for low income communities that contain small businesses districts with encompassing residential zones. The traffic volume is a driving factor for determining this location because both the preventative and diagnostic units will be dependent on this center for support. Both smaller units may also need to refer families to the treatment center located between ten to twenty mile radius of dwelling. This center will coordinate both the diagnostic and preventative in logistics, management, and as a higher medical information supplier.

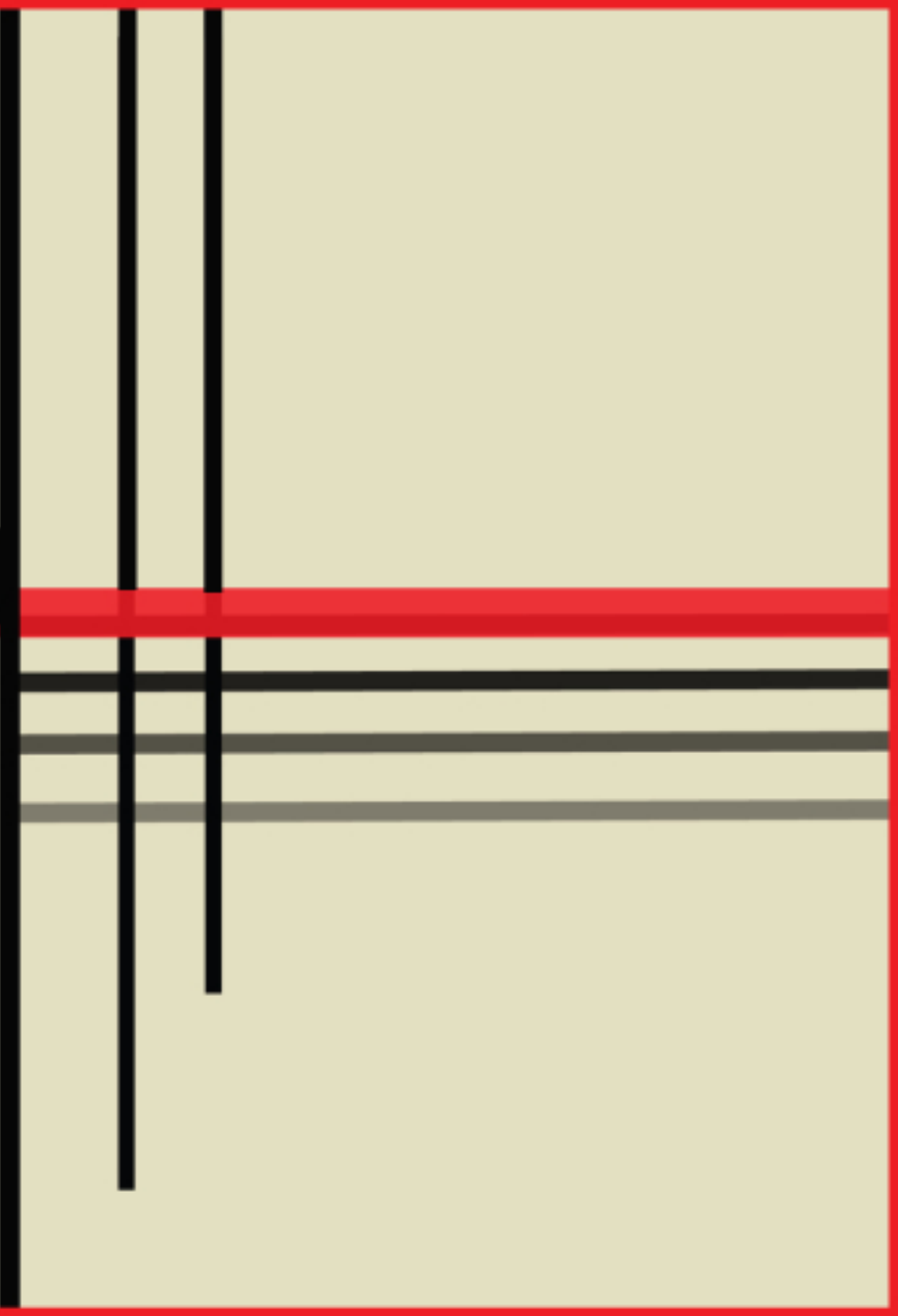
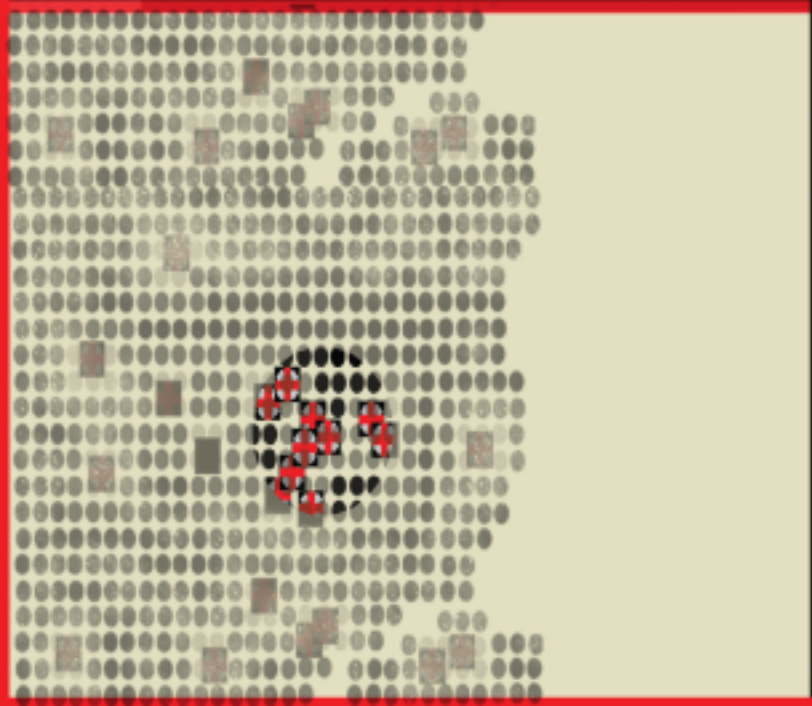
This building will also support neighborhood activities, like a local gym, weight training, aerobics, dietary classes, and a place for kids to hang out at. The Treatment component will also carry a community pharmacy and a small health food store. This usage of space will provide steady income, people, and function. This function will also keep the site relevant to the communities' everyday needs. One of the biggest strengths of this building is its internal flexibility. The spaces can be changed or maneuvered in such a way as to fit a new program or just to expand an existing one in an adjacent space. This can be accomplished by movable partition walls that can glide on a mechanical divider or by arranging the equipment and furniture so that a desire area is established.

The flexibility of its floor plans can keep the building usage purpose important to the ever changing community. The treatment unit will also work alongside doctors of the hospitals by allowing sharing of ideas, patient's treatment needs, recovery plans, prescriptions, new family patient references, and relieving of stress in the overall recovery. This communication will also help staff of nearby hospitals and clinics with over populated spaces and burdens of handling their patient's needs.

The Preventative, Diagnostic, and Treatment components will act as one system by relating function, relationship between staff and family, movement, and communication between resources. The movement of all three will become focused on reducing some of the overall health problems plaguing the low income community. After bringing the risks and needs of service under a certain determined level, the system will revert to mainly research and community health care conditioning levels. This is where the focus will change from bringing down the health concerns, to maintain some healthy living standards for family generations to come; while duplicating the aggressive delivery and service of reducing health problems among near low income areas. This entails a build-up of the diagnostic component first, which will then lead to establishing the preventative model units into other neighborhoods and building a new treatment component that is out of the range of the first units' effectiveness. This process can be duplicated as many times as needed to service all of Detroit and become a prime example of intervention among the much needed low income communities.



Precedent



Precedent of Patient-and-Family-Centered Health Care.

Institute for Patient-and Family-Centered Care.

What are the core concepts of patient- and family-centered care?

- * **Respect and dignity.** Health care practitioners listen to and honor patient and family perspectives and choices. **Patient and family knowledge, values, beliefs and cultural backgrounds are incorporated into the planning and delivery of care.**
- * **Information Sharing.** Health care practitioners communicate and share complete and unbiased information with patients and families in ways that are affirming and useful. Patients and families receive timely, complete, and accurate information in order to effectively participate in care and decision-making.
- * **Participation.** Patients and families are encouraged and supported in participating in care and decision-making at the level they choose.
- * **Collaboration.** Patients and families are also included on an institution-wide basis. Health care leaders collaborate with patients and families in policy and program development, implementation, and evaluation; in health care facility design; and in professional education, as well as in the delivery of care.

Creating patient-centred care

How to:

- * ensure the patient's voice is heard in management;
- * ensure the voice of patients is heard in research;
- * conduct a survey of patient experience;
- * clarify the responsibility of patients;
- * communicate with patients using 21st century media;
- * provide high quality information for patients;
- * manage errors well;
- * help professionals develop the skills they need to involve patients to their preferred level in decision-making and the management of care.



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Institute for Patient and Family
centered Care

Little P, Everitt H, Williamson
I et al. Preferences of patients
for patient centred approach
to consultations: observational
study. BMJ, 2001; 322: 488.

Baptist Center



parklike setting and a community landmark



satellite full-service community



facilitate operational efficiencies



future expansion



Project category: New construction (completed February 2005)

Chief administrator: Ron Robinson, Administrator.

Firm: Gresham, Smith and Partners.

Design team: Joseph F. Thompson, AIA, Principal-in-Charge;
James R. Kolb, AIA, Design Principal; Shawn Kirouac,
Associate AIA, Project Manger; Elisa A. Worden-Kirouac, IIDA,
NCIDQ, Interior Designer; Amy E. Davis, Interior Designer.

Photography: Joseph Lapeyra Photography; Jim Kolb, Gresham,
Smith and Partners.

Total building area (sq.ft) 252,000.

Construction cost/sq.ft \$214.

Total construction Cost (excluding land): \$54,000,000.

Baptist Center

Baptist Medical Center South JACKSONVILLE, FL
Gresham, Smith and Partners



reflect evidence-based design
healing environment
internal gardens
extensive art program
emerging technologies
expansion and adaptation



Baptist Medical Center South opened in Feb,2005. as a satellite full service community hospital with 92 beds. Services include Intensive Care, Emergency Medicine, Obstetrics, Diagnostics, Surgery, and Medical/ Surgical inpatient nursing. Design concepts focus on patient safety, reflect evidence-based design, accommodate emerging technologies, facilitate operational efficiencies, and provide a clear pattern for expansion and adaptation. A driver is the creation of three internal gardens. These gardens serve as internal landmarks further supporting way finding. The central garden is visible from the public elevator lobby at every level. The gardens also serve to bring daylight and garden vistas deep into the plan. One benefit is that 16 of the 18 ED exam rooms have garden vistas to provide positive distractions for patients during a stressful experience.

Architect Perspective

Building a Better Emergency Department: An Architect's Perspective



Pods: rooms that can see any acuity



Easy access to supplies.

Fewer lightboxes.

Natural lighting.

Wide alcoves
multi-use beds

Bedside Registration.



Is your hospital planning a new emergency department or expansion? Due to ever-increasing patient volumes, at least once during your career you should expect to be involved in one. Creating a new space involves more than simply adding rooms and square footage - build-outs must be flexible and have longevity. Have you ever wondered what goes into the development of a new emergency department? I did and found Jim Bynum - registered architect at Perkins + Will with twenty years experience in planning and implementation of healthcare architecture - to give me his perspective.

Flexible Use Planning

Bynum's team came up with an idea to solve the drastic volume shifts that occur in Daytona Beach, Florida. They call them pods: rooms that can see any acuity and are organized to keep rooms nearby and in nurses' line of sight. Some spaces were oversized, such as designated critical care rooms and trauma bays. Otherwise, any room can be anything.

Easy access to supplies. Placing a mini-pyxis in each room that has commonly used items, opened quickly with a wand linked to a patient, eliminates leaving a room to get items from a central pyxis.

Mini TVs in reach of patients and staff. Flat screen TVs may look cool and save space if high up on a wall, but if they can't be easily adjusted become a big distraction. "There should never be televisions that can't be muted or remote controls that can walk off with patients," says Benator.

Fewer lightboxes. Modern tech has eliminated the need to have these in each room. Having a few near the physician work area is sufficient when the PACS is down or patients bring their own film.

Natural lighting. High "clearstory" windows allow light without views into the room or open ED space.

Bedside Registration. This growing trend to have the nurse or physician be the first contact after walking in the hospital is incorporated into design by eliminating the registration desk.

Architect Perspective



Flexible Use Planning



Design within reach



Volume



Longevity

Anticipating the future



Adaptability is the new mantra in ED design. While having individualized rooms for a variety of specialties seems like a nice idea - having all the tools you need integrated into the room - it only works well when those rooms are full with no one else waiting in the queue. For instance, having a gyne area unconsciously reinforces the idea that suspected gyne-table requiring patients must be placed there and nowhere else. Sometimes gyne patients wait until a new gyne bed is available even though other rooms might be free to use. Psych rooms can be a challenge, too, as empty rooms are wasted and due to their deliberately bare design, if filled with non-psychiatric patients are not as useful.

In a push for an optimally productive ED, many are designing standardized rooms and opting to shuttle in the necessary mobile specialty equipment. Steve Strata and Debbie Jacobs, authors of "Making Room: Optimizing ED space to increase patient capacity" (Health Facilities Management Magazine, 2010) call it "flexible use planning." They write that this type of design improves the efficiency of care delivery, and in turn significantly increases capacity. This kind of system increases the longevity of a facility since as needs change, rooms are not locked into a specific conformation.

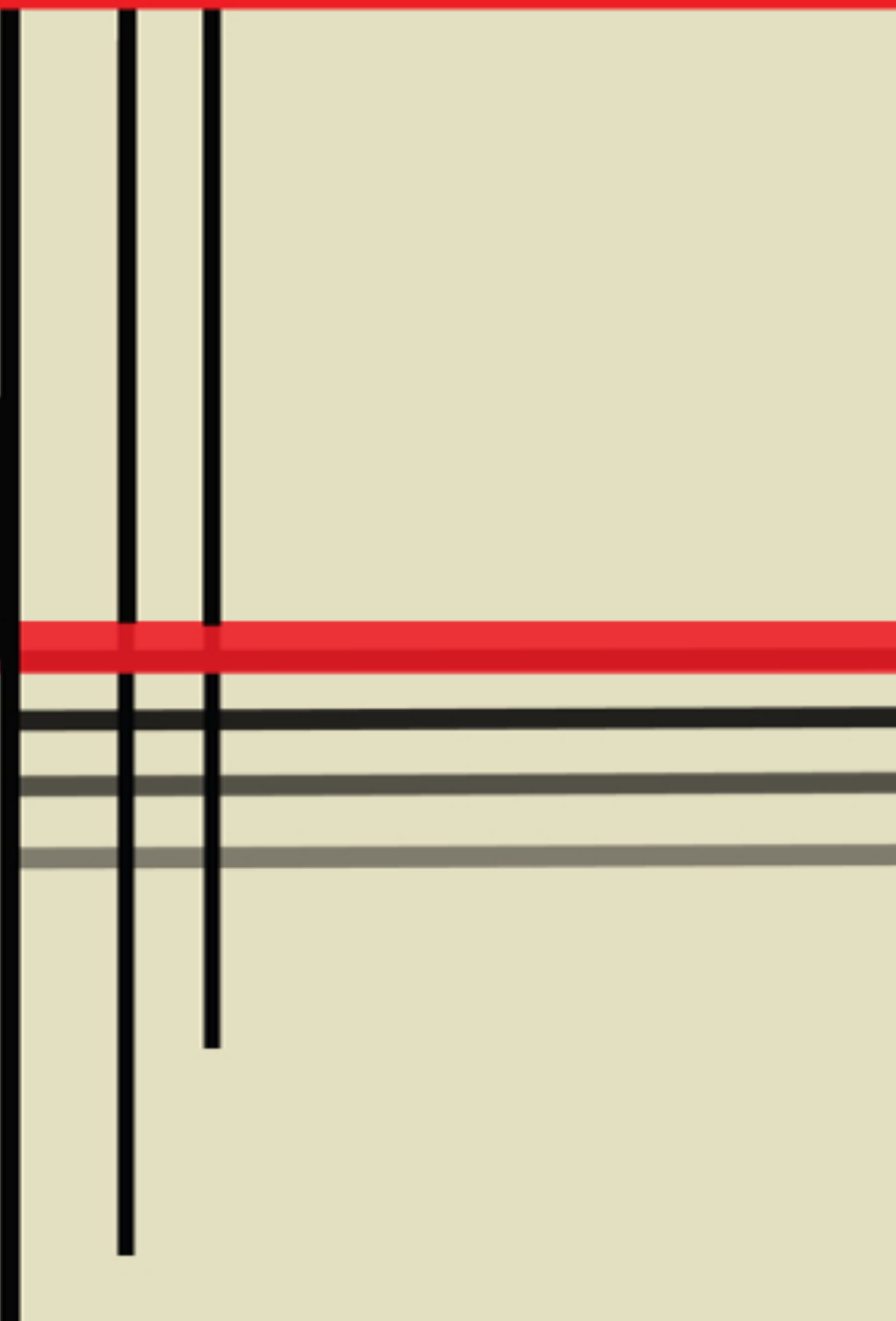
Bynum's team independently came up with a similar idea in order to solve the drastic volume shifts that occur in Daytona Beach, Florida. They call them pods: rooms that can see any acuity and are organized to keep rooms nearby and in nurses' line of sight. Some spaces were oversized, such as designated critical care rooms and trauma bays. Otherwise, any room can be anything. There would not be fast track, ENT, ophthalmology, ortho, psychiatric or gyne subspecializations. Instead of having, for example, a large thirty-six room ED with a single nurses station, and straggler rooms that aren't visible to the central area, the space could be subdivided into three or four manageable pods. Each one would have dedicated nurses, techs and doctors situated in an island surrounded by the treatment rooms.

Number and disposition of courtyards is associated with the organizational logic of the clinic and has formative influence on the relationship between outdoor and indoor space. Phase one proposal envisages one larger courtyard surrounded by childbirth (inpatient) facilities and disease prevention (out-patient) facilities; and another smaller courtyard to be surrounded by outdoor family area. There is full use of the outdoor areas with and without shadow, as a natural extension of the indoor facilities. In the design they wanted to promote ways of social interaction by planning for

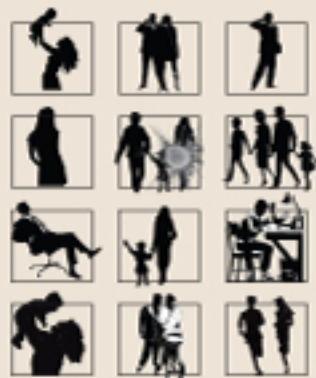
The idea behind modular configuration is to define a spatial solution which would be able to grow and adapt according to the changing needs; or according to varied conditions at different locations. Notionally, if more and more modules were to be added, the clinic facilities could grow infinitely but always confined to the circular matrix, defined by three differently sized courtyards.



Program Development



Hospital's Cancerous Growth, Removal from Neighborhood Context.



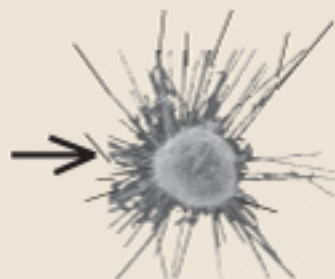
Modernity



Post Modernity



Excluded Uncovered Neighborhood



City Boundary Push

Variety of Medical Care



Inpatient

An inpatient is a patient who must be hospitalized for at least one night in order to receive medical treatment.



Outpatient

An outpatient is someone who goes to a hospital or clinic for a procedure which does not require a stay overnight. Care provided to outpatients is sometimes known as ambulatory care, in a reference to the fact that the patients can often walk in and walk out, because the procedures are simple and quick.



Urgent Care

Urgent care is health care provided to patients who have conditions which require medical attention, ideally within 24 hours. Urgent care involves conditions which could develop complications, but are not life-threatening. Typically, urgent care is provided in a clinic which stands alone from a hospital.

Written by S.E. Smith
Edited by G.Wallace
Last Modified: 09 September 2010



Family Types



Family units take a variety of forms, all of which involve individuals living under one roof. The family form or structure does not indicate how healthy the family is or how they function. The family form is merely the physical makeup of the family members in relationship to each other without respect to roles and function.

Nuclear Family



Extented Family



Single Parent Family



Childless Family



Publish by Ferris
Foundation
Publish by Southern
Kings
Consolidated School
2010 Essence
Communications Inc.

"Patient- and family-centered care," is that social isolation is a risk factor in today's society. Individuals, who are most dependent on hospital care and the broader health care system, are also often most dependent on families and other support networks:

What is Patient-and-Family-Centered Health Care?

In the patient- and family-centered approach, the definition of family, as well as the degree of the family's involvement in health care, is determined by the patient, provided that he or she is developmentally mature and competent to do so. The term "family-centered" is in no way intended to remove control from patients who are competent to make decisions concerning their own health care. In pediatrics, particularly with infants and young children, family members are defined by the patient's parents or guardians.

"Patient- and family-centered care," is that social isolation is a risk factor in today's society. Individuals, who are most dependent on hospital care and the broader health care system, are also often most dependent on families and other support networks:

The objectives of patient-centred care.

- * To involve the individual patient in the management of their care to their preferred level.
- * To involve patients and the public in the allocation of resources.
- * To involve patients and the public in the management of services.
- * To involve the individual patient in decision-making to their preferred level of involvement.
- * To involve patients and the public in the development and implementation of research.

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Institute for Patient
and
Family Centered Care

Little P, Everitt
H, Williamson
etal, Preferences of
patients
for patient centered
approach to consulta-
tions
observational study.
BMJ, 2001; 322: 488.

Defining Patient and Family.



The word **"patient"** has three different meanings in the Shorter Oxford English Dictionary. The first is **"a sufferer; one who suffers patiently – 1795"**. Here the meaning is of someone with a disease who must just wait until either the disease gets better or death intervenes. The second meaning, from the late Middle English, is **"one who is under medical treatment"**, and the third is a more general meaning, **namely "a person or thing that undergoes some action or to whom something is done"**.



The word **"family"** refers to **two or more persons who are related in any way—biologically, legally, or emotionally. Patients and families define their families.**

A. "A social group characterized by common residence, economic cooperation and reproduction, including adults of both sexes, at least one of whom maintain a socially approved sexual relationship, and one or more children, own or adopted, of the sexually cohabiting adults." (Murdock, 1949).

B. "The family is...a group of persons united by ties of marriage, blood, or adoption; constituting a household; interacting and communicating with each other in their respective social roles of husband and wife, mother and father, son and daughter, brother and sister, and creating and maintaining a common culture" (Burgess et al. 1971).

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Institute for Patient and Family
centered Care

Little P, Everitt H, Williamson
I et al. Preferences of patients
for patient centred approach
to consultations: observational
study. *BMI*. 2001; 327:488.

Questions about Patient and Family Center Care?

Key questions about patient-family centred care.

- * Will patient-family centred care increase costs?
- * Will patient-family centred care increase conflict between clinicians and patients?
- * Do all patients want patient-family centred care?
- * How does patient-family centred care relate to systems of care?
- * Will patient-family centred care reduce the status of professionals?
- * Does patient-family centred care mean that patients will be forced to make all decisions?

Can Patient-Family centred Care be combined to form a Patient Family ?



Prevention Component

- Bone Mass Measurement
- Cardiovascular Screen
- Colon Cancer Screen
- Diabetes Screen
- Diabetes Self-Management Training
- EKG Screen
- Flu Shots
- Glaucoma Test
- Hepatitis B Shot
- HIV Screen
- Breast Cancer Screen
- Smoking Cessation
- Diet Info. Teaching
- X-Ray BP.
- Lung Function Testing



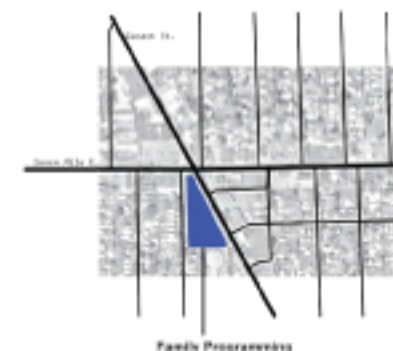
Diagnostic Component

- Information Sharing,
- Prep for Treatment
- Social Issues
- Emotional State,
- Initial Care, and
- Management Planning
- Intro to what the
- Patient should expect.

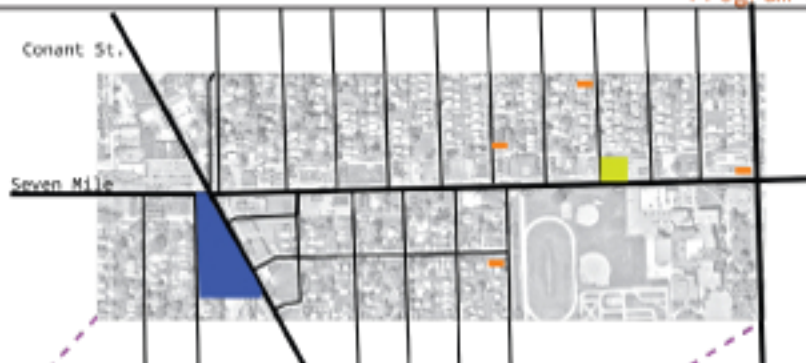


Treatment Component

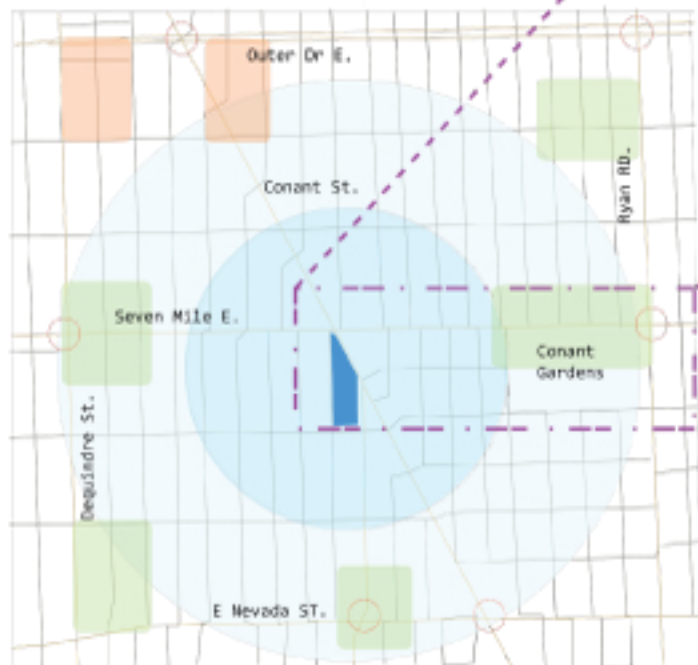
- Treatment Programs
- Therapy Options
- Day Treatment
- Programs
- Children's
- Interactive
- After School
- Programs



Key Plan Detroit



Neighborhood Programming



Urban Programming

Key	
	Hospital/ Family Clinic
	Preventive/ Diagnostic
	Treatment
	Prevent 1 Lot
	Diagnostic 2-3 Lot
	Primary Gate
	2 Mile Drive
	1 Mile Drive

Prevention Component



Size Small
 Movement 1-3 Day
 Crew 2 Men
 1 Lot

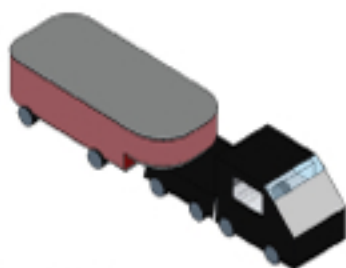
Potential Programming

- Bone Mass Measurement
- Cardiovascular Screen
- Colon Cancer Screen
- Diabetes Screen
- Diabetes Self-Management Training
- EKG Screen
- Flu Shots
- Glaucoma Test
- Hepatitis B. Shot
- HIV Screen
- Breast Cancer Screen
- Smoking Cessation
- Diet Info. Teaching
- X-ray Rm.
- Lung Function Testing

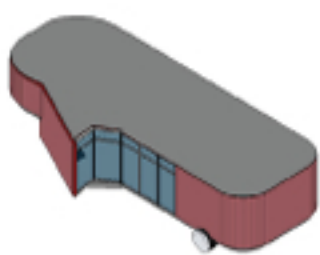
Schematic Design



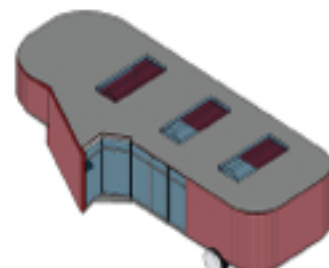
- Entry
- Waiting Rm.
- Exam Rm.
- Scanner Rm.
- Research
- Hitch



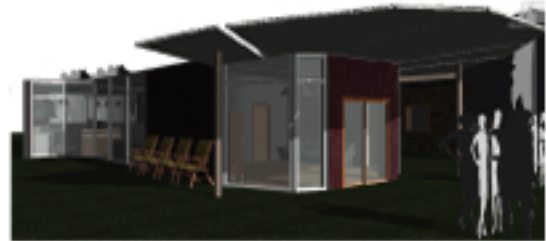
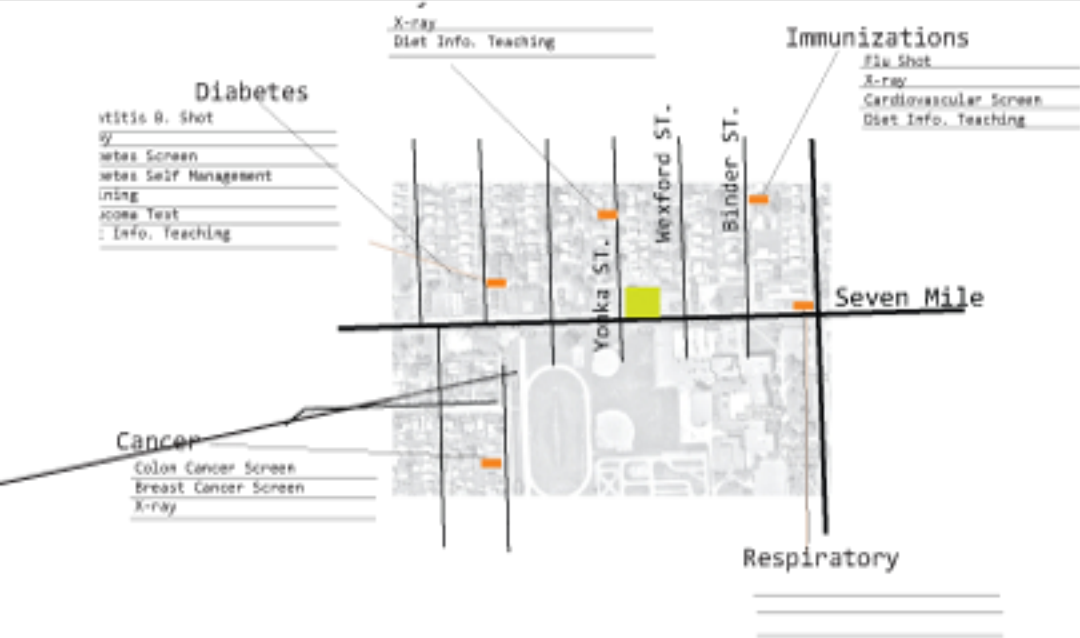
Pod Delivery



On-site Arrival



Transforming Pod



Perspective Schematic



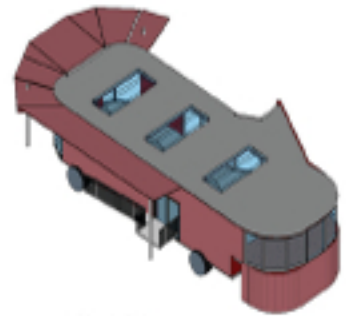
Site Schematic



Interior Schematic



Transforming Pod



Final Set-up

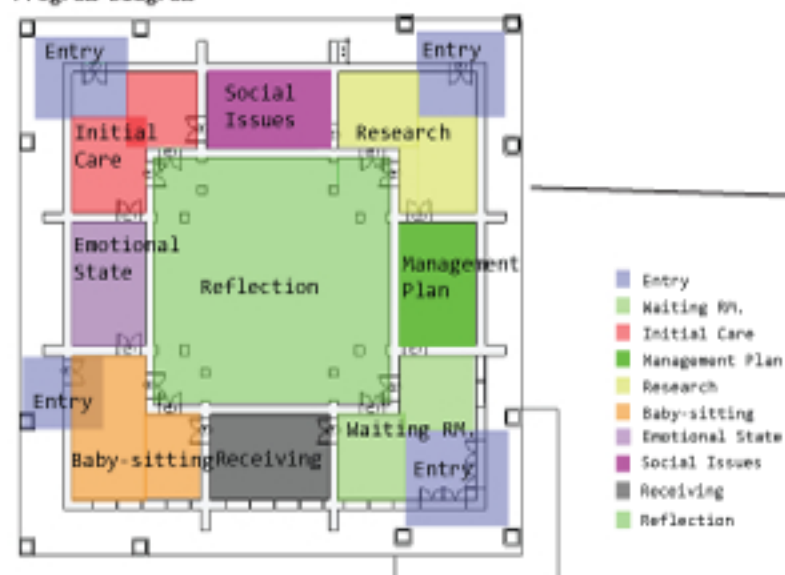
Diagnostic Component

		Diagnose
Movement		Medium
Crew		1-2 Month
		5 Men
Size	■	1 Lot

Potential Programming

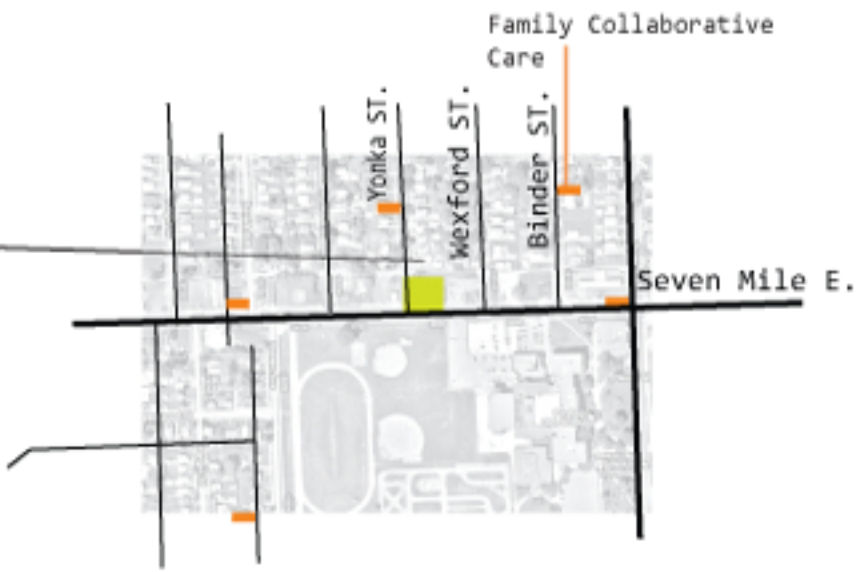
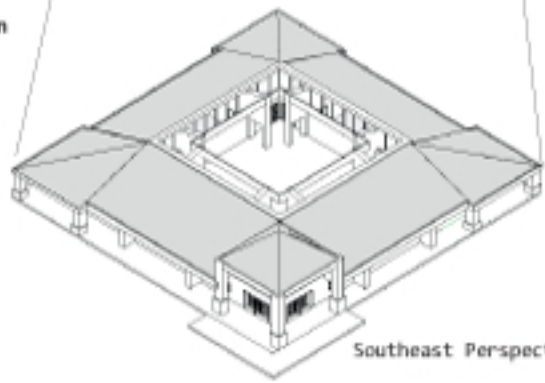
Information Sharing,
 Prep for Treatment
Social Issues
 Emotional State,
 Initial Care, and
 Management Planning
 Intro to what the
 Patient should expect

Program Diagram





Schematic Design



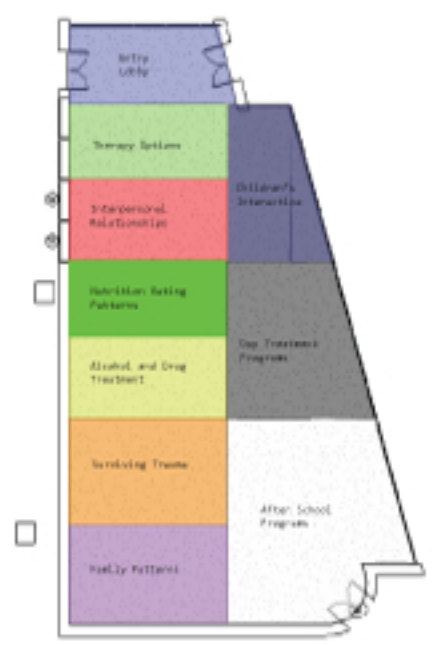
Treatment Component

- Size** Treatment
- Large**
- Movement** 1-5 Years
- Crew** 18-20 Men
- Block**

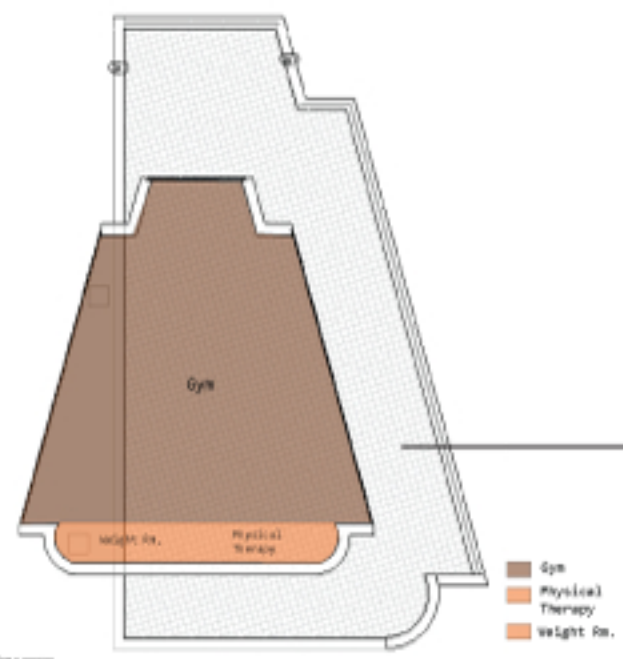
Potential Programming

- Treatment Programs
- Therapy Options
- Day Treatment Programs
- Children's Interactive
- After School Programs

- Entry
- Therapy Options
- Interpersonal Relationships
- Nutrition Eating Patterns
- Alcohol and Drug Treatment
- Surviving Trauma
- Family Patterns
- After School Programs
- Day Treatment Programs
- Children's Interactive



Program Diagram

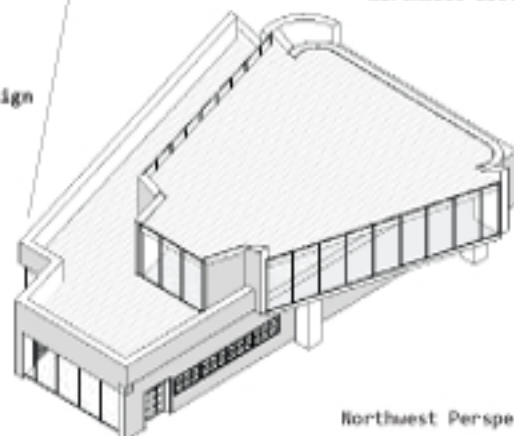


- Gym
- Physical Therapy
- Weight Rm.



Northwest Elevation

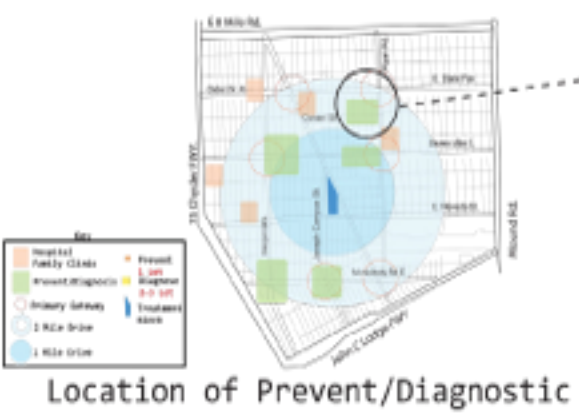
Schematic Design



Northwest Perspective



Family Programming



The Movement within a Neighborhood, of the



One Month



Two Months



Three Months

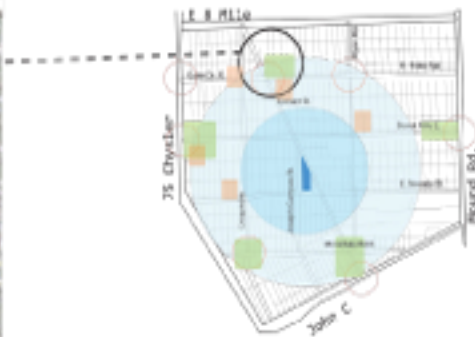
Preventive and Diagnostic Components.



Four Months



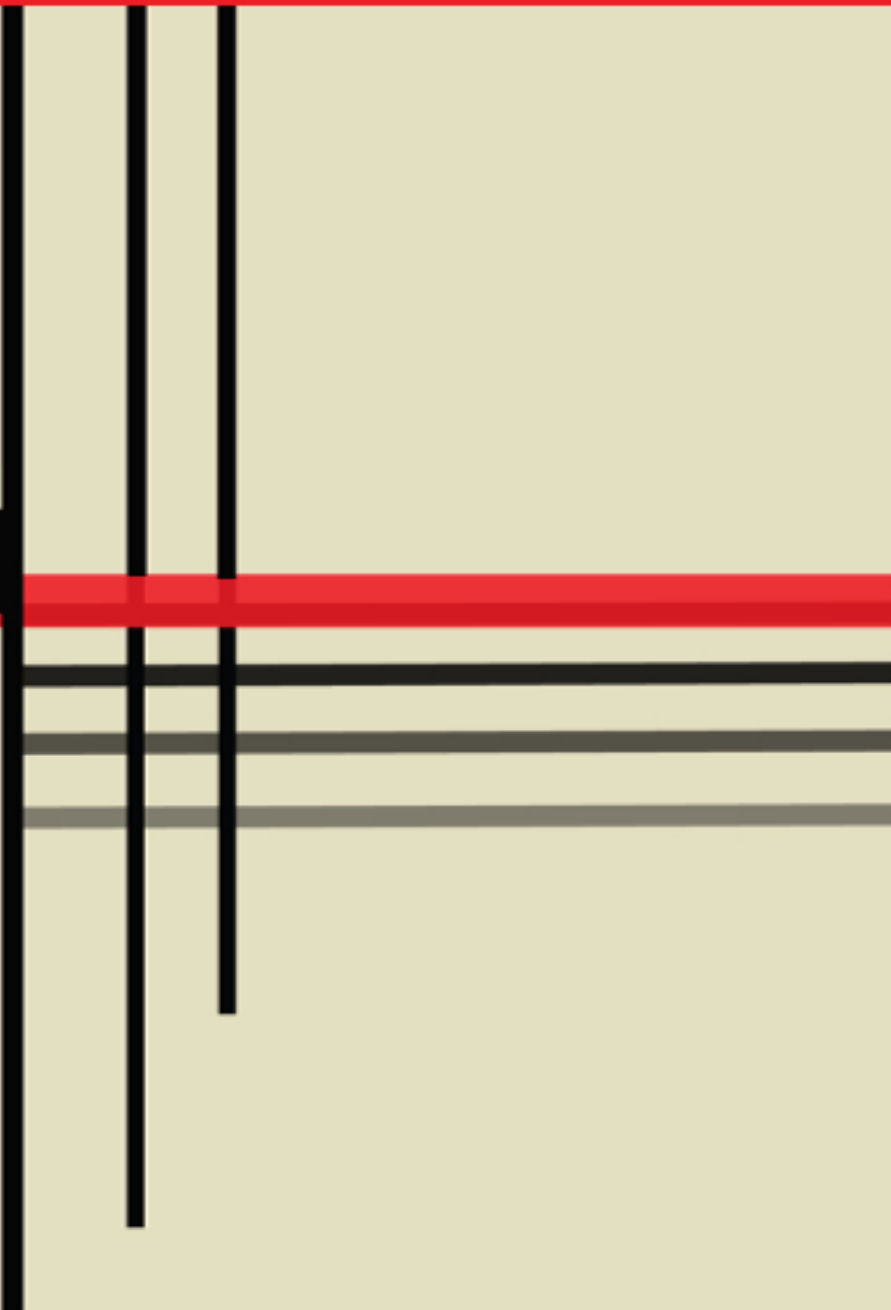
Five Months



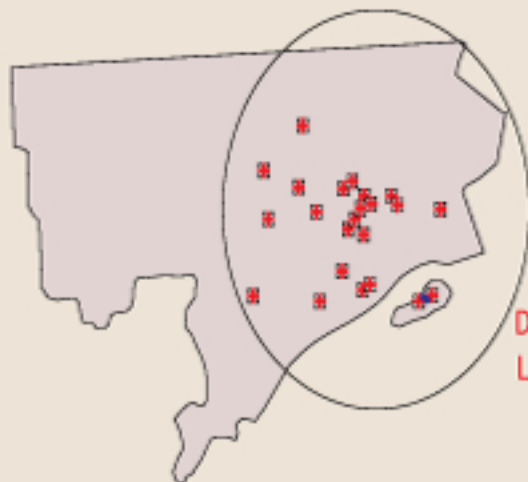
Relocation of Prevent/Diagnostic



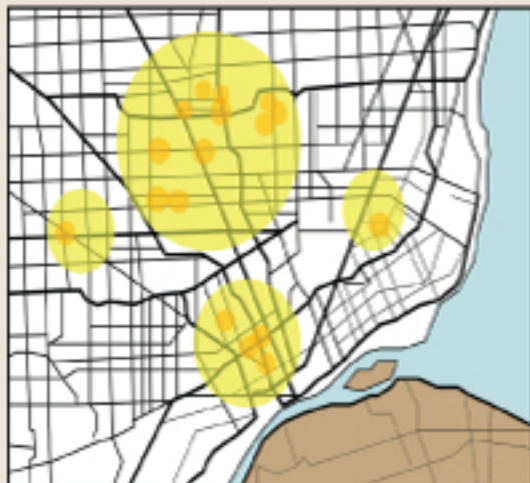
Research



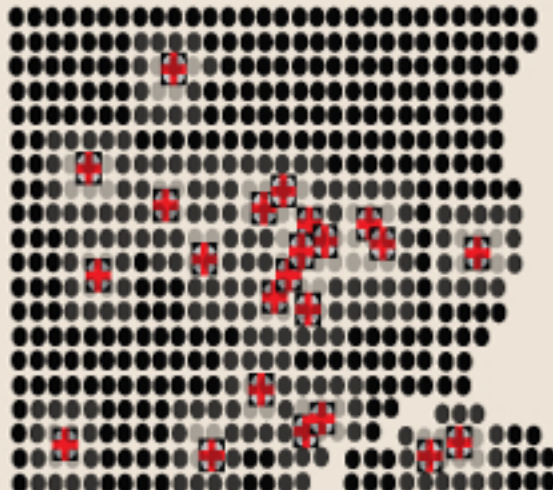
Healthcare Network



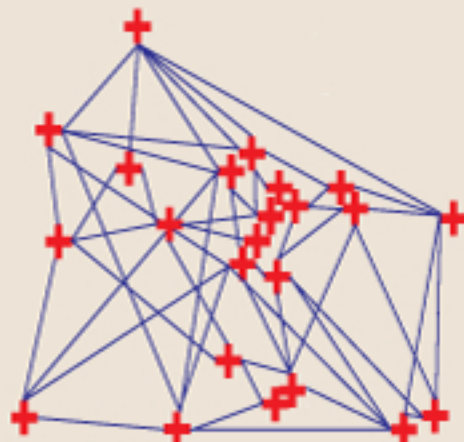
Detroit's Hospital and Clinic Locations.



Clusters of Medical Service.



Medical Service within Void Areas



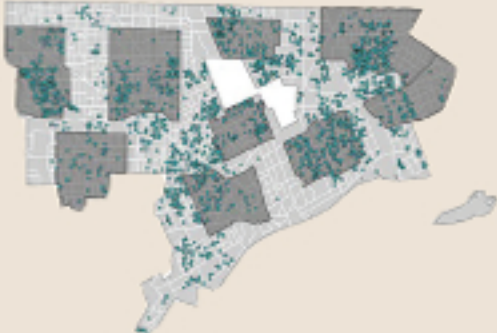
Service Connects within the Clusters

Residential Demolition

Residential structures in various stages of demolition/1,867.

Various Stages of demolition

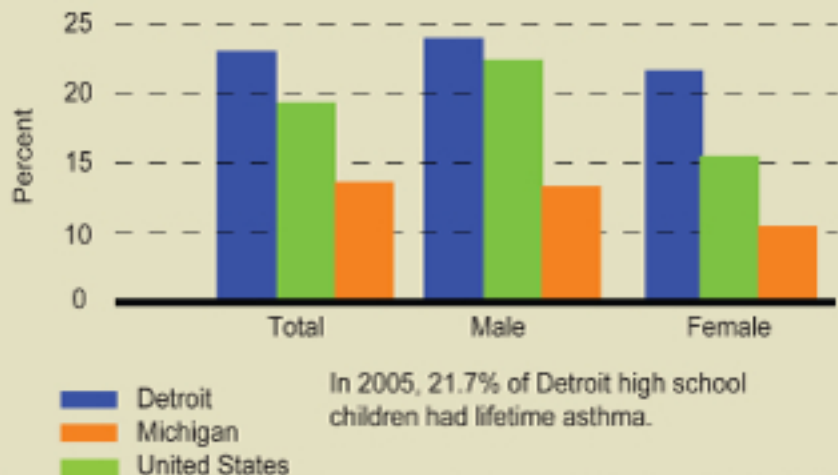
- 1. Met utility clearances(water,electricity,and gas).
- 2. Asbestos removed if necessary.
- 3. Wrecking permit issued.
- 4. Assigned to a demolition contractor.
- 5. Assigned to a demolition contractor.



Residential Structures to be Demolished-3,000

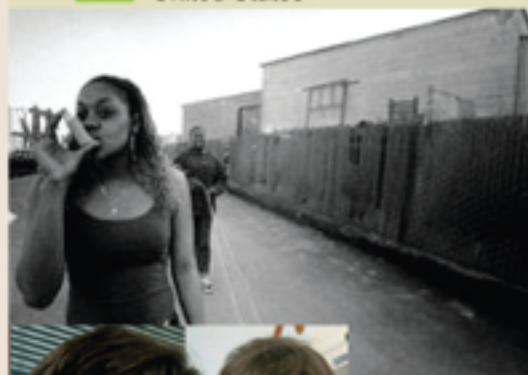
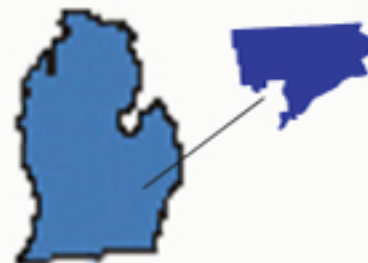


Asthma Percentage

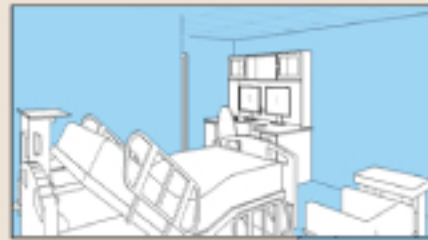


There are approximately 262,000 Children living in Detroit.

- 72%-188,000-live in low income families
- 39%-101,000-live in poor families.



Type of **Ward** for Different Types of **Families**.



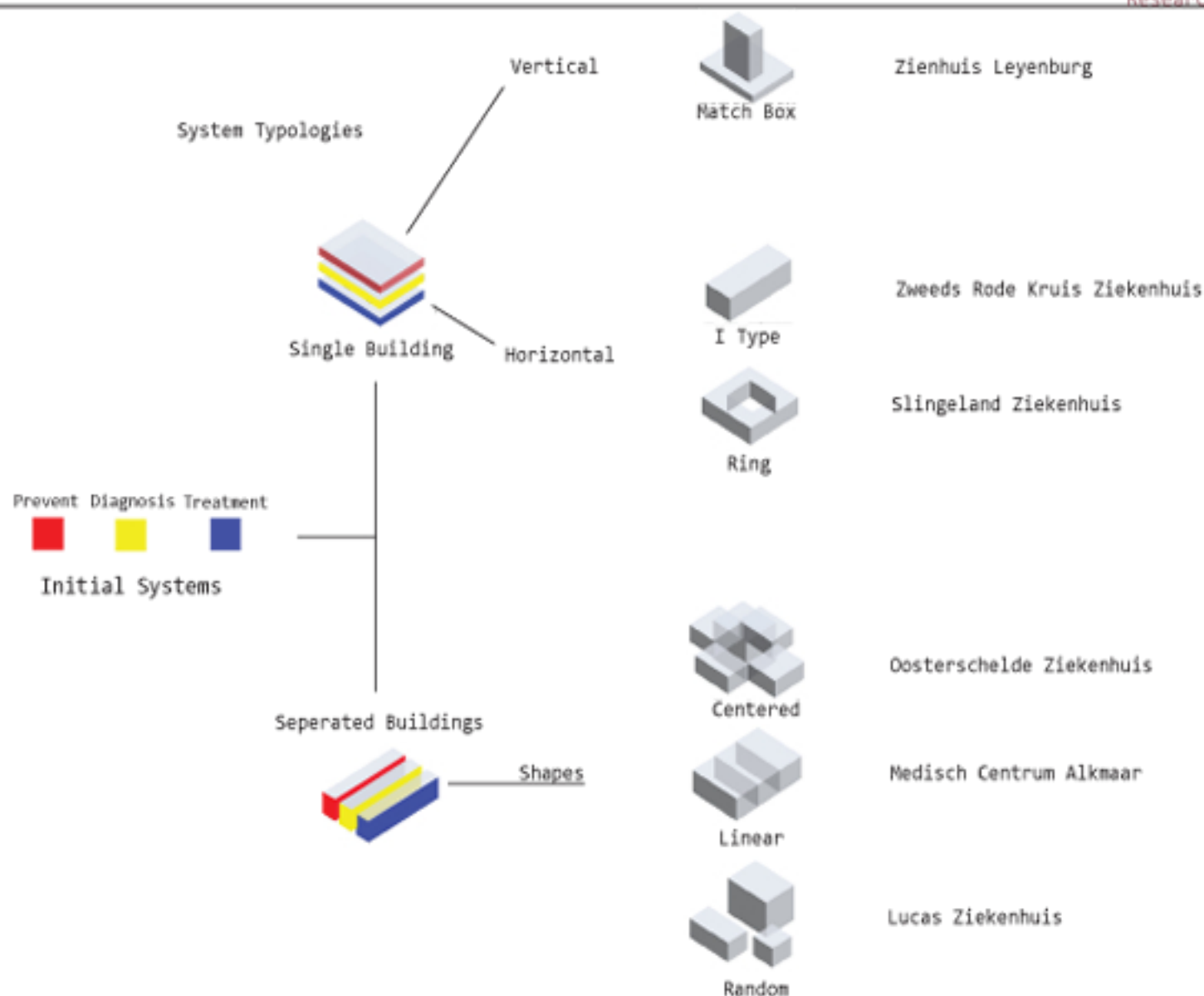
20'x20'
52 Mid-Patient

25'x25'

30'x30'

35'x35'

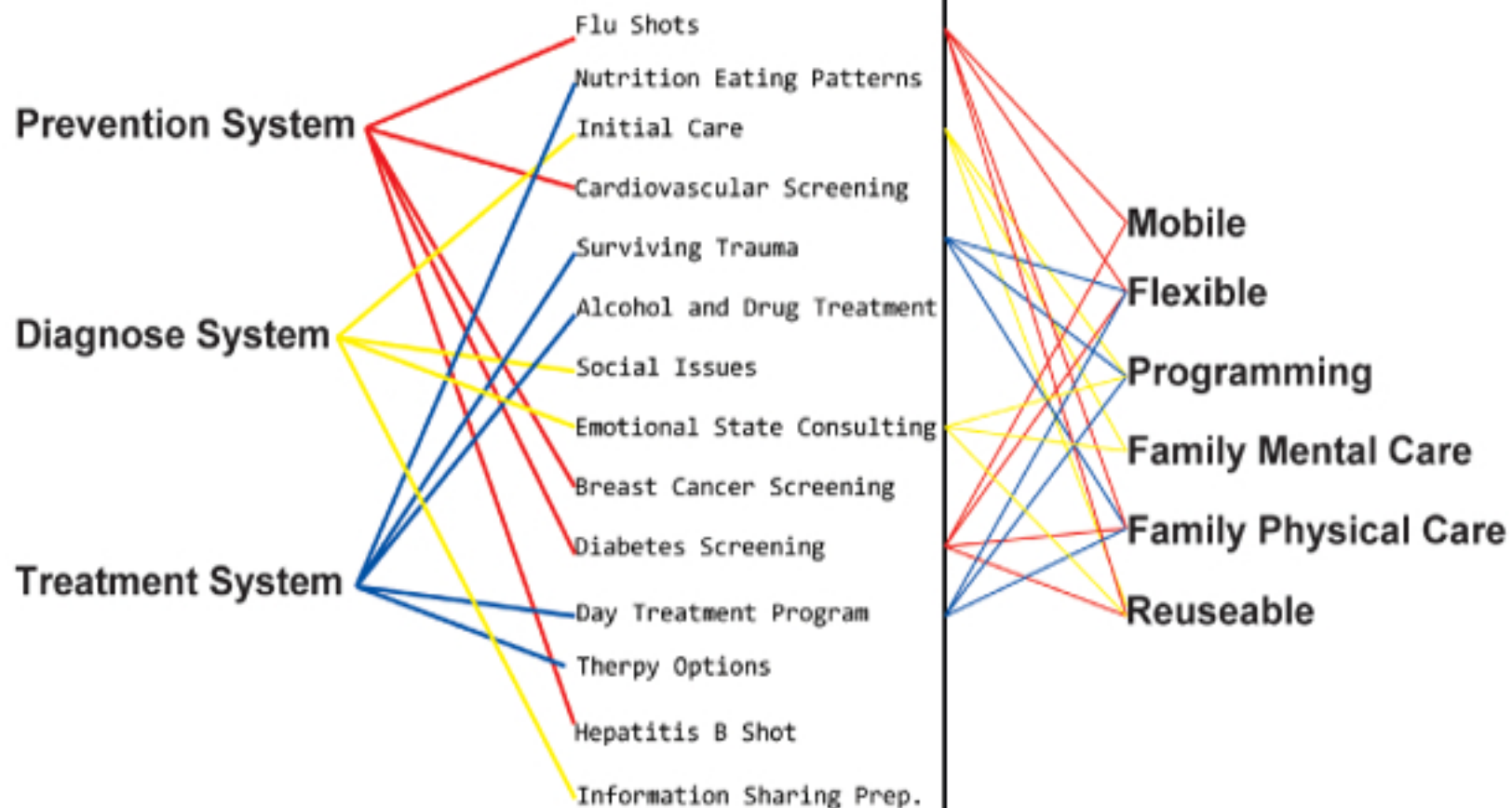
Ward Choice. **Public** vs. **Private**



Health System

Service System

Model Requirements



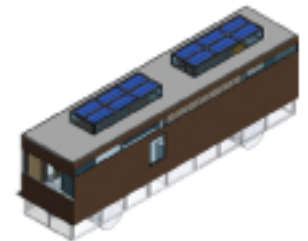
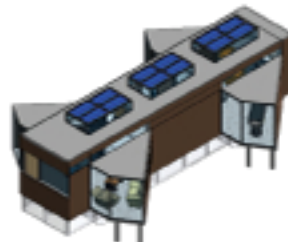
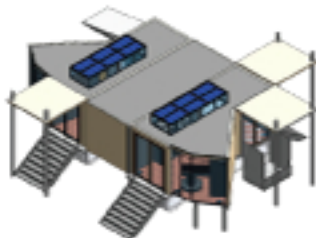
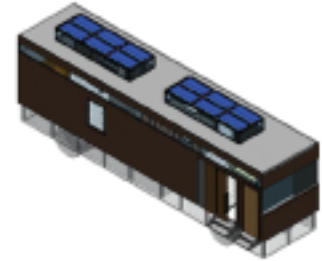
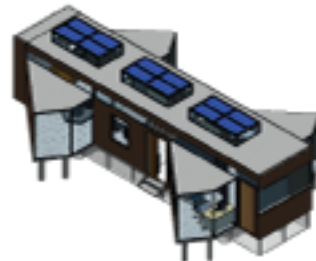
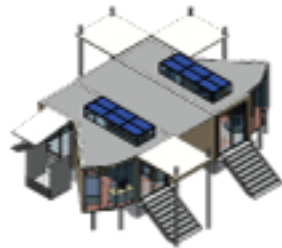
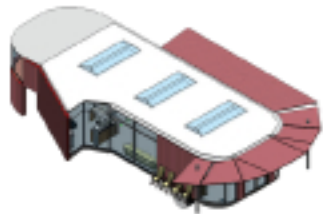
Preventative Pods



Preventative Pods

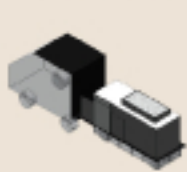


Serving the Community
and Delivering health care
to low income Families.



Mid-Patient

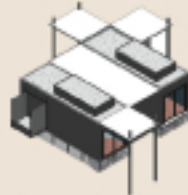
Preventative Pods Option 1.



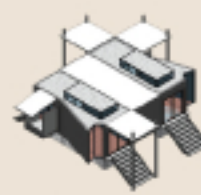
Arrival Stage



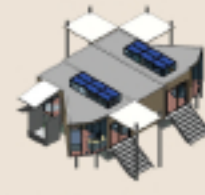
Prep. Setup Stage



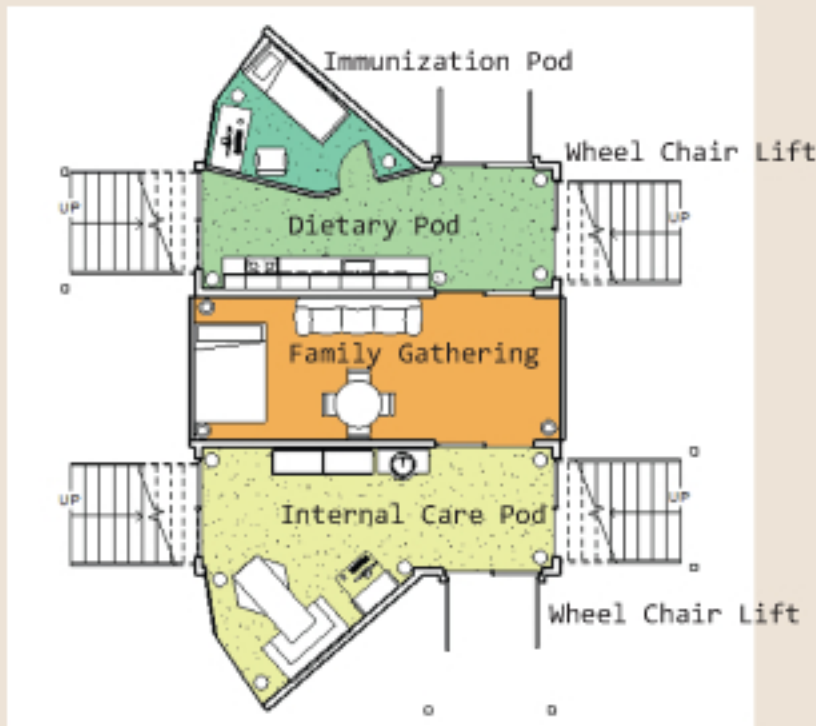
Unfolding Stage 3



Power Stage 4



Final Operation



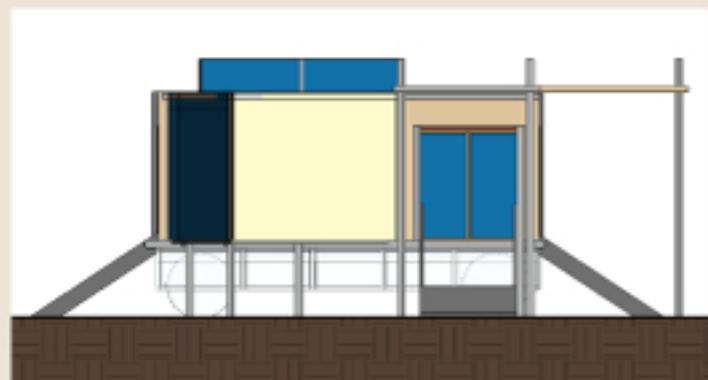
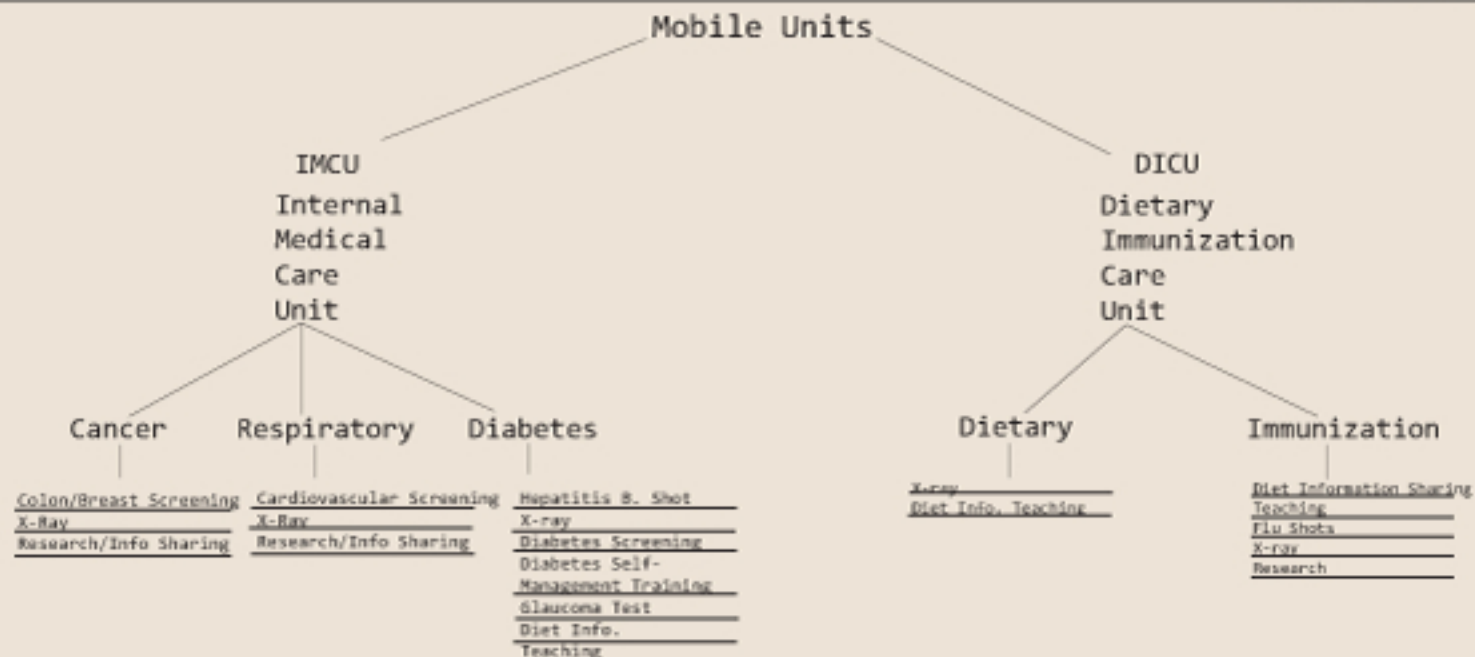
Unfolding Stage 3



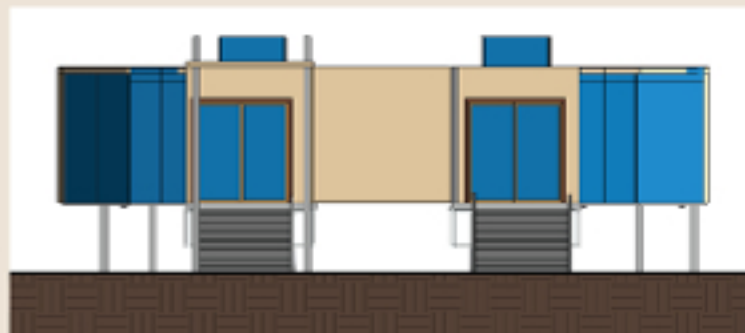
Power Stage 4



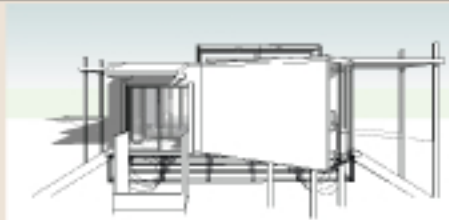
Final Operation Stage



Elevation



Elevation



Side Perspective



Rear Perspective

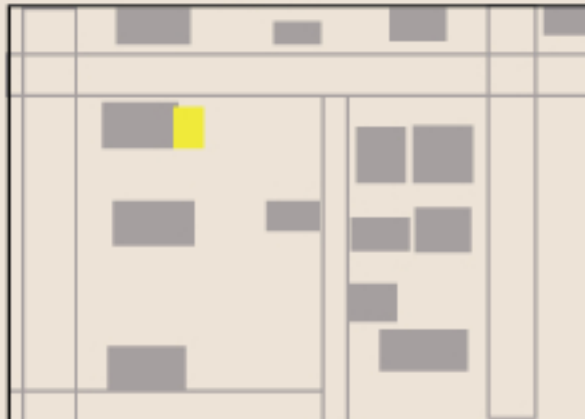


Front Perspective



Sizing Units

Attach



Detach





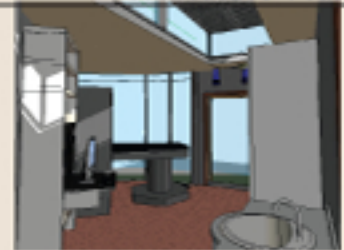
Arrival Stage



Prep. Setup Stage 2



Preparing Unfolding of Pods



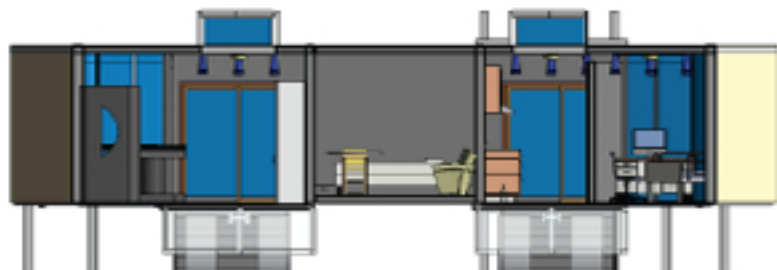
Internal Care Pod



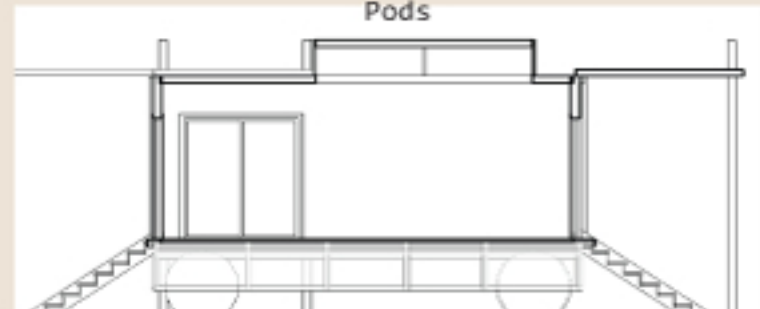
Movement through Pods



Dietary and Immunization Pods



Section



Section

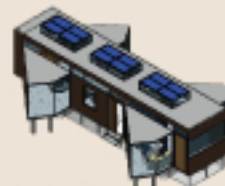
Option 2



Arrival Stage



Unfolded Stage

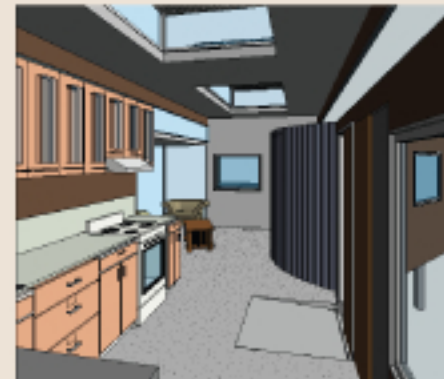
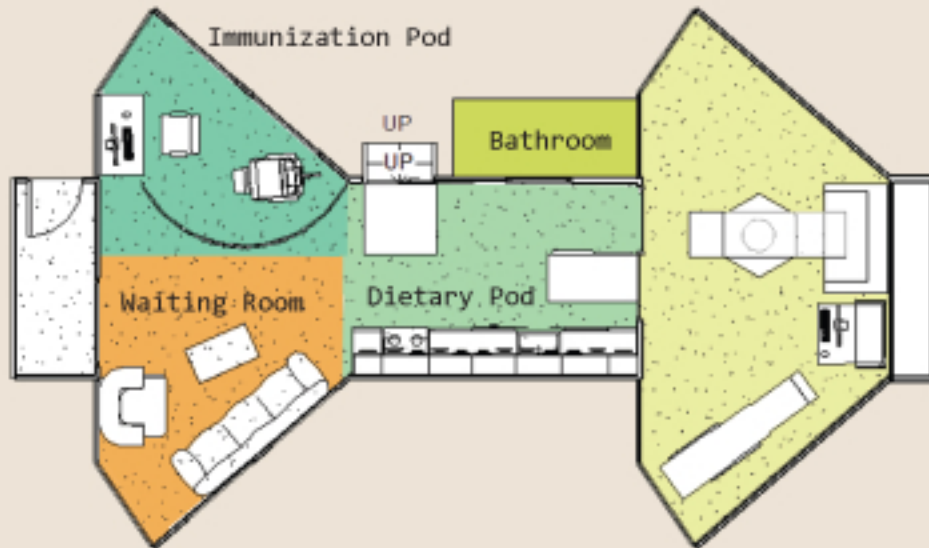


Final Stage

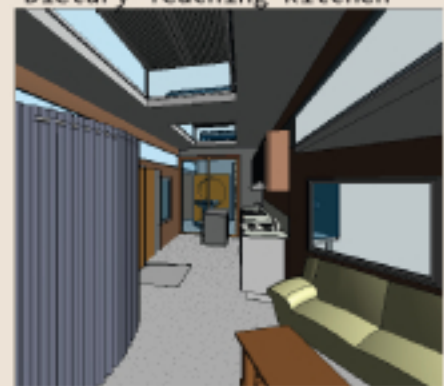


DICU
Dietary
Immunization
Care
Unit

IMCU
Internal
Medical
Care
Unit



Dietary Teaching Kitchen

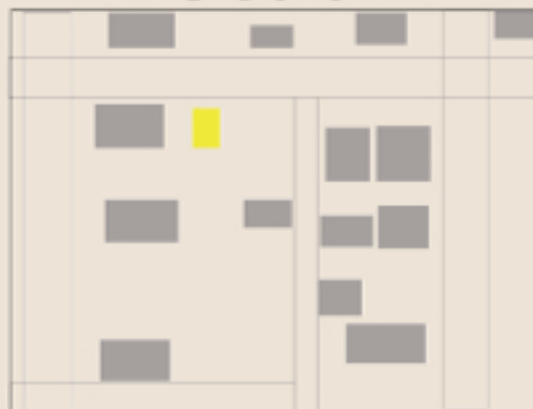


Waiting Rm.



Sizing Units

Detach



H



Section



Elevation

Administrations Mobile Units

Administrations Office/Research

Nurses



Technologist



Social Worker



Nurses



Technologist



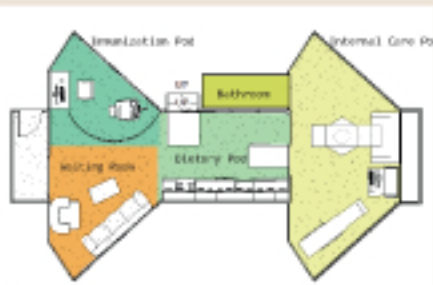
Social Worker



Head Nurse



Nurse Assistant



DICU
Dietary
Immunization
Care
Unit

IMCU
Internal
Medical
Care
Unit



DICU
Dietary
Immunization
Care
Unit

IMCU
Internal
Medical
Care
Unit



- Entry
- Waiting RM.
- Exam Rm.
- Book Keeping
- Research
- Hitch

Driver



Drivers



Driver



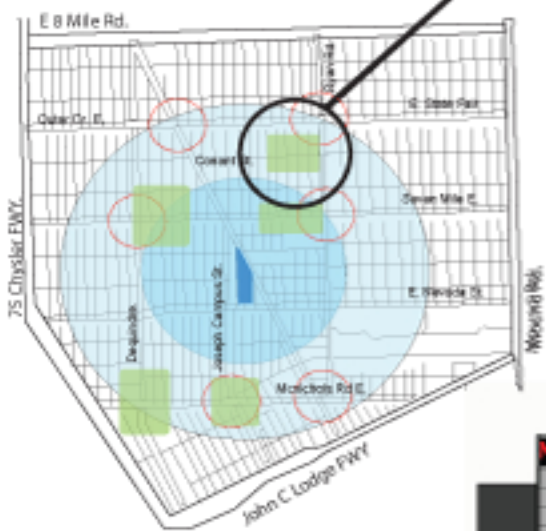
http://www.ventura-pod.com
4400 W. 10th St.
Tulsa, Oklahoma
74106





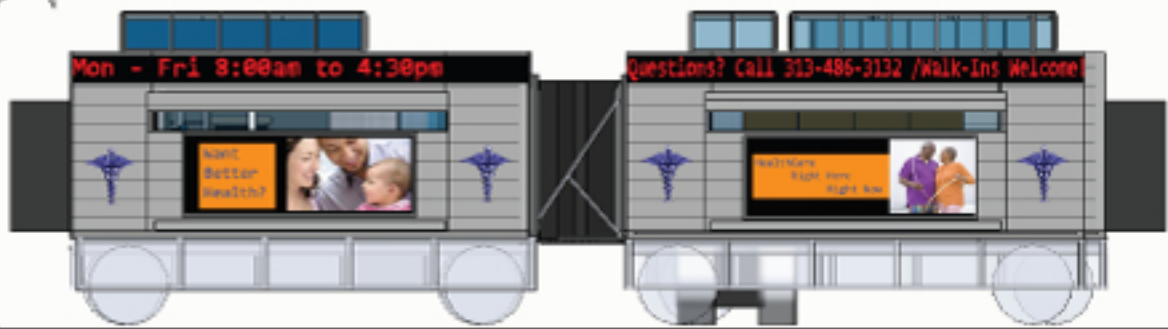
Preventative Pods

Advertising

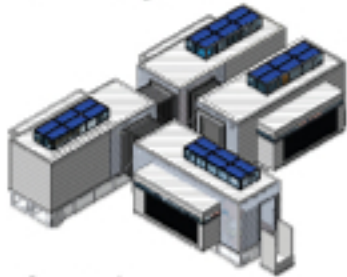


Key

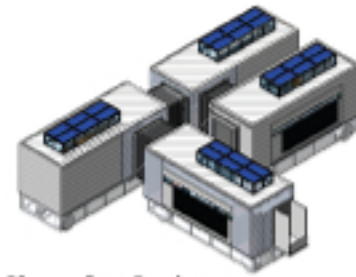
- Hospital
- Family Clinic
- Prevent/Flagship
- Primary Gateway
- 2 Mile Drive
- 1 Mile Drive
- Prevent 1 Lot



Floor Plan Layout



Open for Business



Close for Business



Examination Pod

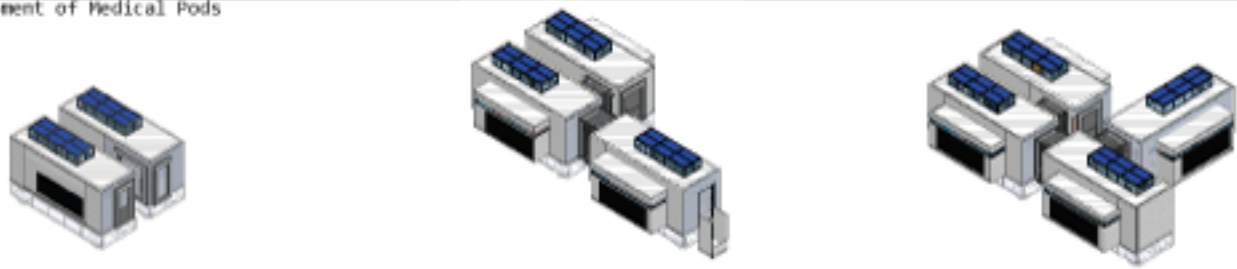
Dietary Pod



Examination Pod

Dietary Pod

Development of Medical Pods



Delivery to Site

Open for Business

Medical Pods in Neighborhood



Delivery to Site



Pod Technology System

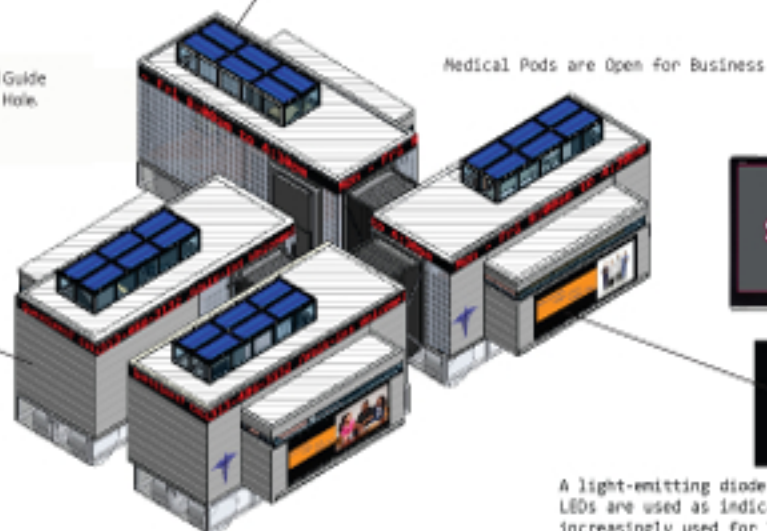
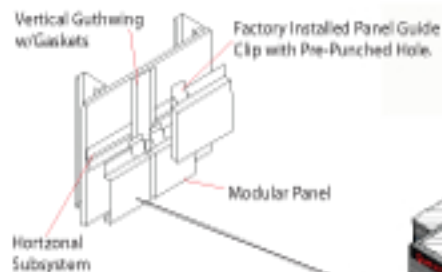
Structural Frame Pull Away

The Consort Panel System

Proclad utilizes the best features in the industry to deliver high standards of quality and performance.
Materials: .64"/1.5mm thick aluminum

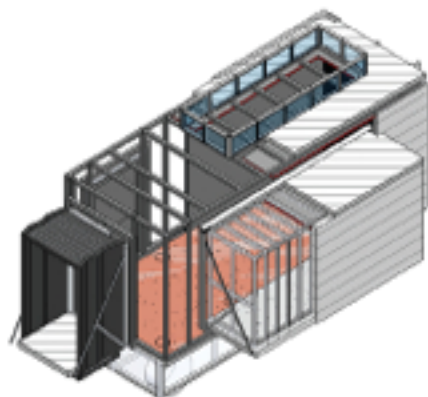


The skin is composed of accentuated horizontal bands and striated with 4 different degrees of translucency, allowing for digital messaging to be projected along its length.

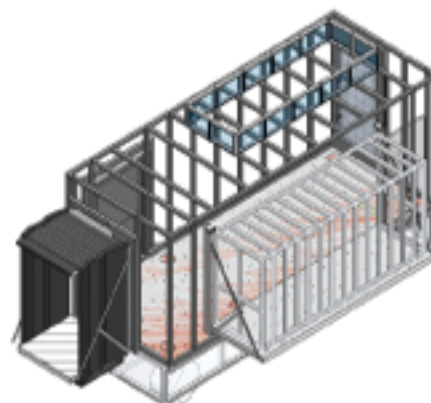


A light-emitting diode (LED) is a semiconductor light source. LEDs are used as indicator lamps in many devices, and are increasingly used for lighting. Introduced as a practical electronic component in 1962.

Pod Advertising System



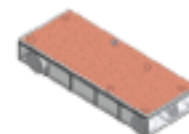
Structural Frame Pull Away



Structural Frame System



Pull Out System



Frame and Floor System



Insulator Connector



Delivery of Generator

Precedents



Dimensions

The average length of bigger RVs is between 7.6 meters to 12 meters or 25 feet to 40 feet. These vehicles are usually packed with different interesting features, most of which are intended to offer luxury and convenience. Their average weight stands somewhere around 5,400 kilograms to 7,000 kilograms or 12,000 pounds to 15,500 pounds.



Inside dimensions: 26'5" x 7'8" x 8'3" (LxWxD)
 Man's Attic: 3' x 7'8" x 3' 1" (LxWxD)
 Deck height: 2' 9"
 Door opening: 7'3" x 6'10" (WxD)
 Loading ramp width: 2' 7"



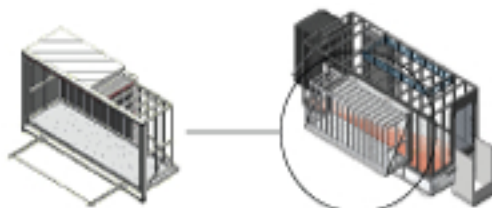
A typical container has doors fitted at one end, and is constructed of corrugated weathering steel.

[2] Containers were originally 8 feet (2.44 m) wide by 8 feet (2.44 m) high, and either a nominal 20 feet (6.1 m) or 40 feet (12.19 m) long.

They could be stacked up to seven units high. At each of the eight corners are castings with openings for twistlock fasteners.

Taller units have been introduced, including 'hi-cube' or 'high-cube' units at 9 feet 6 inches (2.9 m) and 10 feet 6 inches (3.2 m) high.

Main Room Slide Outs



Complete Frame System



Slideout System Control Options



- Rocker switch/quick-off control
- Control is preset at a specified current draw. It turns off the system in one-half second after the room seals minimizing stress on motors, gears, shear pins, and room seals.

Hydraulic Pumps for Slideouts



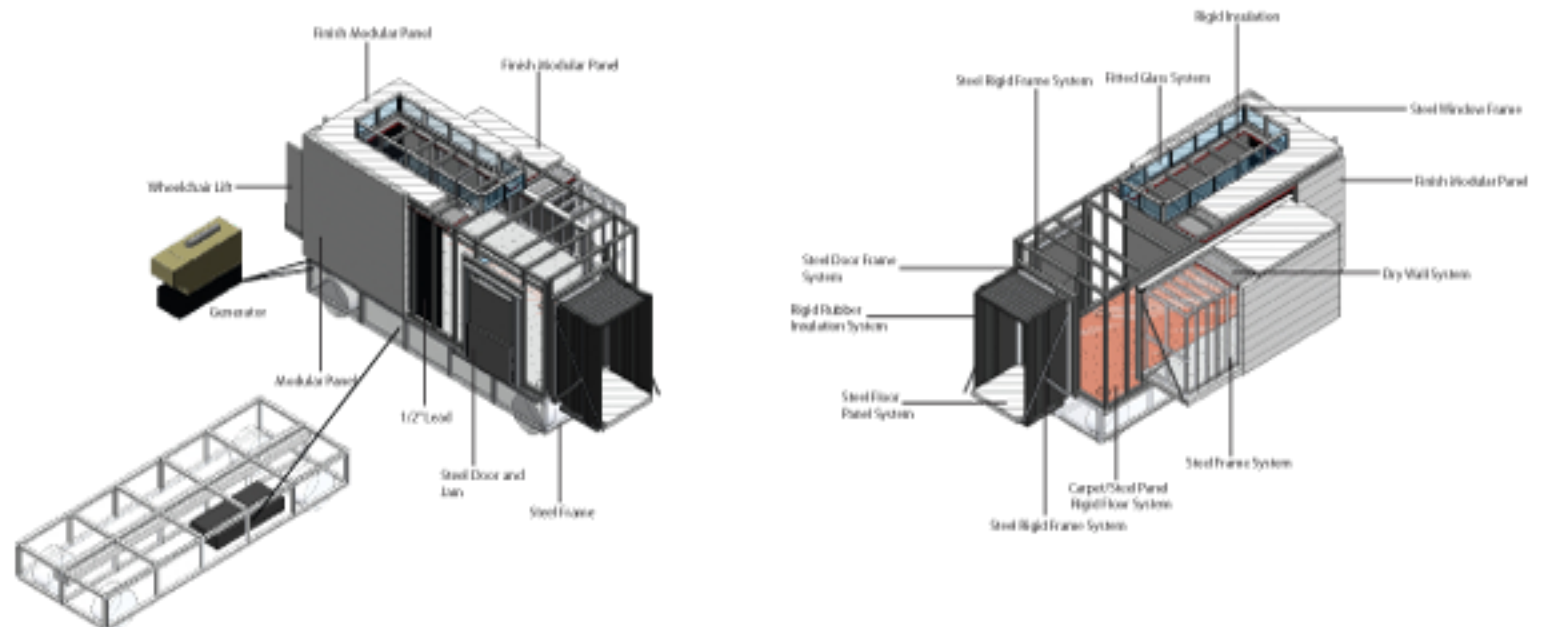
- Complete family of pump sizes available for all slideout applications.
- Lightweight compact design.
- Control valve systems available for all slide room combinations.

Typical electric rack and gear systems



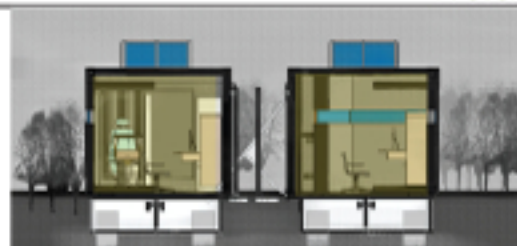
- Electric system motors feature integral locks to positively lock the room in place every time, eliminating room drift and seal relaxation.
- Drive gears and slide-rail support rollers are concentric ensuring proper alignment and mesh between racks and gears.
- Shafts/gears are oil impregnated to eliminate oxidation and to ensure smooth, quiet operation.
- Mechanical adjustability provides tight room sealing.

Pod Structure System





Social Pod



Section 2

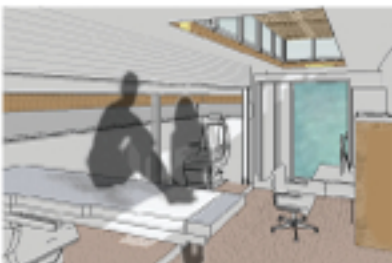


Dietary Pod

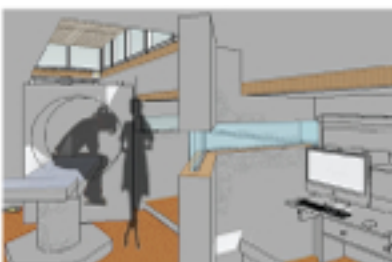


Examination Pod

Dietary Pod



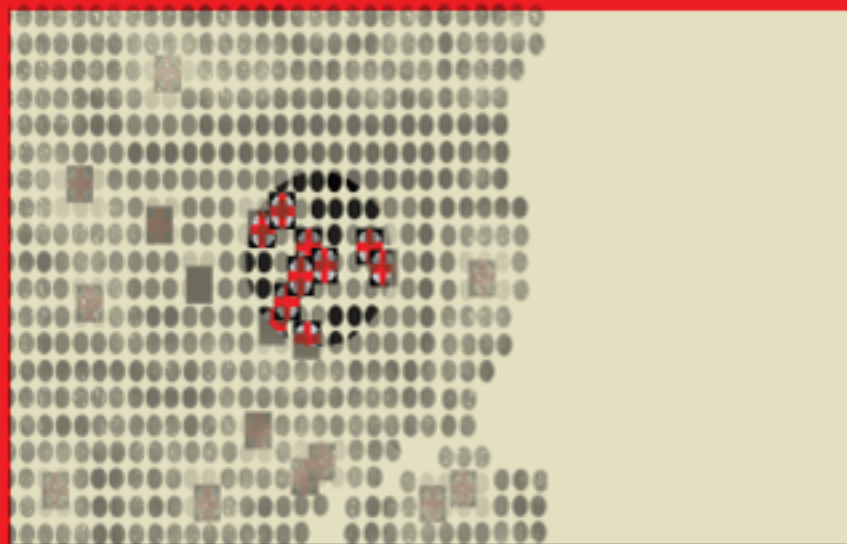
Examination Pod



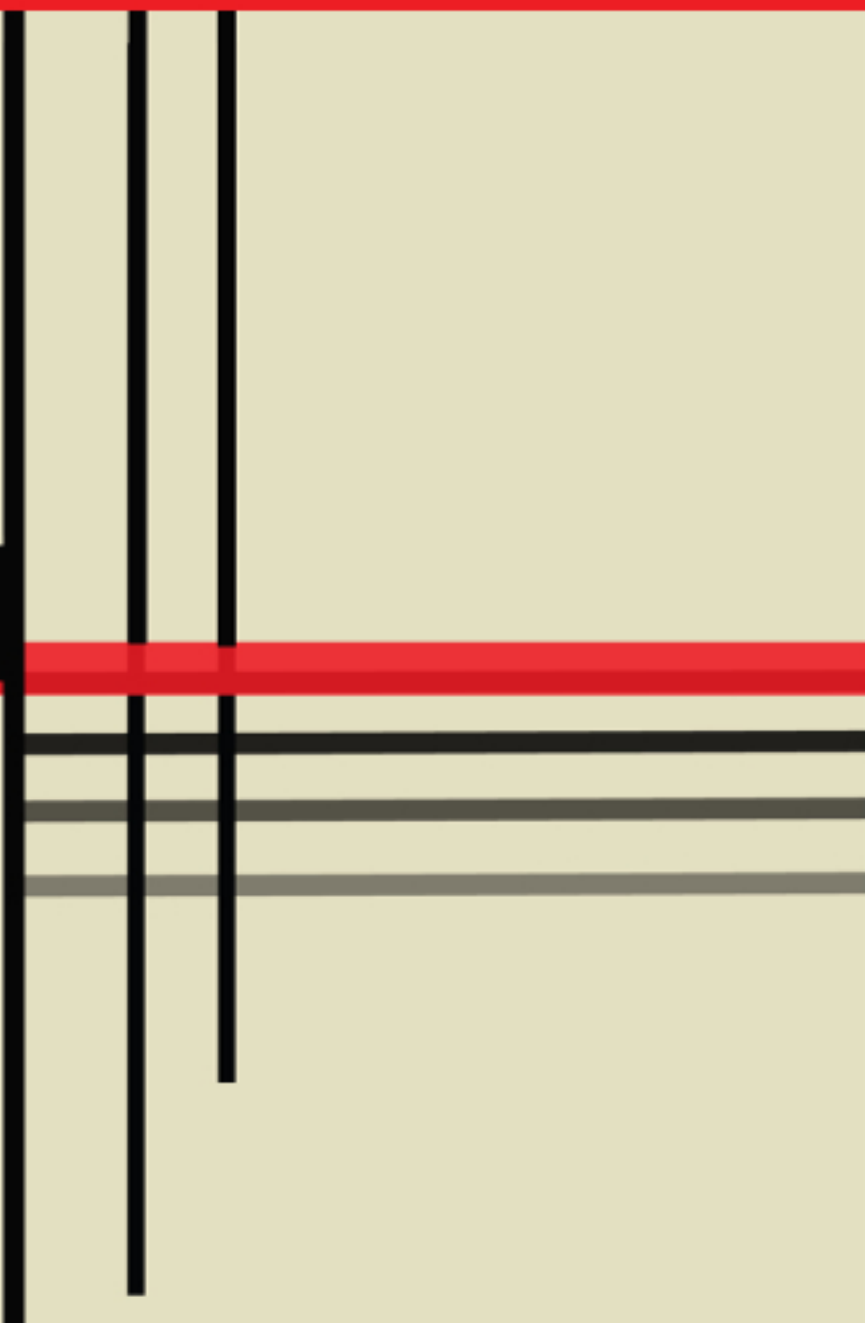
CT Pod



Section 1



Conclusion?



Like many large corporations, hospitals tend to suffer from bloated layers of management, which mask the fact that at its most basic and essential, a hospital is a “neighborhood” business centered on a relationship between the doctor and the patient. This calls for building designs that are less corporate and more humanly scaled, that are flexible enough to treat a patient’s condition rather than fit a patient into a particular department.

Miller Swensson

This process of conditioning a unique outlook of the medical service to a more basic utility unit that people can identify with was just the beginning of a larger cycle. This cycle was dealing with people on a human scale lead by a architecture outlook on a medical issue. Inorder to truly understand the impact of these components, the cycle must be put into a larger scope and investigated through a different lens. Maybe a different outcome will rise, along with new problems to deal with.

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