Case Western Reserve University
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Cleveland Clinic
with the Office of Patient Experience

Designing for Interactions in Patient and Family Experience

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Contents

Designing for Interactions in Patient and Family Experience

Executive Summary

This design brief captures our project team's current understanding of Cleveland Clinic as an organization and proposes a problem to explore in the next academic semester. The first part of the brief consists of our understanding of Cleveland Clinic's background and development since the 1920s, its market position, and its strengths and challenges. The first part ends with an analysis of the current state of innovation in the healthcare industry and how Cleveland Clinic fits into this analysis.

The second part begins with the problem statement identified by our group. We believe there is a problem of influencing the behavior of physicians at Cleveland Clinic. In other words, there is a great design opportunity to explore physician interactions with patients and families. We understand this may be a difficult task with various constraints and risks. However, if successful, this is a significant issue with potential implications for the HCAHPS, the Office of Patient Experience, and the culture of Cleveland Clinic.

Designing for Interactions in Patient and Family Experience

1. Organizational Profile

Organization & Its History

Established in 1921 by four renown physicians, Cleveland Clinic is a multi-specialty, academic medical center founded on a vision of providing outstanding patient care. This vision was originally based on the principles of *cooperation*, *compassion*, and *innovation*, and captured in the 1921 mission statement, "Better care of the sick, investigation into their problems, and further education of those who serve."

As 2010 comes to an end, Cleveland Clinic's mission "to provide compassionate healthcare of the highest quality in a setting of education and research," has not significantly changed since 1921. As an organization, Cleveland Clinic continues to focus on high quality care for patients in parallel with a desire to create an environment of learning and development through research.

This desire for excellence has not been immune to challenges along the way. For example, soon after its founding and despite rapid growth, Cleveland Clinic suffered major setbacks due to the Great Depression and also a fire in the hospital in 1929. The fire claimed 125 lives, including one of its founders. However, with its community of dedicated caregivers, Cleveland Clinic quickly grew once again and is now the second largest medical group practice in the world after the Mayo Clinic.

Beginning of the Office of Patient Experience

It is in the context of this resilient and dyamic culture that Cleveland Clinic established the Office of Patient Experience in 2008. Supporting the greater organizational goals, the Office of Patient Experience's mission statement promises "to ensure care that is consistently patient-centered by partnering with caregivers to exceed the expectations of patients and families."

The Office of Patient Experience has stated its strategic objectives in 2010 very explicitly to clarify its mission statement - "In order to achieve higher patient satisfaction, and improve overall patient experience." One way of achieving this is by creating structure (i.e. within the Office of Patient Experience) and building a robust set of experts (particularly around HCAHPS domains).

Additionally, the Office of Patient Experience continues to support its capabilities within Cleveland Clinic as described by the following specializations and services: serving as a patient experience advisory resource for critical initiatives across the Cleveland Clinic health system; providing HCAHPS education; providing resources and data analytics; identifying, supporting, and publishing sustainable best practices; and collaborating with a variety of deparments to ensure the consistent delivery of patient-centered care.

Organizational Structure

Cleveland Clinic is structured under a group practice model. The physicians on staff are salaried employees as opposed to being in private practice. Mayo Clinic has a similar structure.

In 2007, the organization restructured itself by changing its practices to complement the group practice model. By combining specialties around a specific organ or disease system into integrated practice units called institutes, Cleveland Clinic believes it can provide collaborative, patient-centered care and also an easy-to-understand structuring of capabilities for patients and families (See **Appendix: Institutes** for a list of Cleveland Clinic institutes).

Locations and Future Growth

Cleveland Clinic has a national and international reputation for its services and medical facilities. The clinic currently operates seventeen family health centers, nine regional hospitals in the surrounding Ohio communities, several hospitals in Florida, a brain center for treatment of cognitive disorders in Las Vegas, and a health and wellness center in Canada.

Cleveland Clinic's international presence consists of a world-class specialty hospital in Abu Dhabi, UAE (built to be opened in 2012 and owned by the UAE government), and Chief Executive Officer Delos Cosgrove has also announced plans to expand the organization's market in Austria and Singapore in the near future.

Market Position

According to the *U.S. News Best Hospitals* ranking for 2010-2011, Cleveland Clinic ranks as the fourth best hospital in the nation. Cleveland Clinic is in close competition with Johns Hopkins Hospital, Mayo Clinic, and Massachusetts General Hospital, which make up the first, second, and third spots, respectively. Locally, University Hospitals Health System is a competitor of Cleveland Clinic.

Market Strengths

Cleveland Clinic is a service-based, not-for-profit organization that ranked high on thirteen specialties this year (See **Appendix: Services** for a list of services and specialties). While offering some of the best special care available, Cleveland Clinic also collaborates with other organizations from a variety of industries to enhance the quality of care offered throughout its system. For example, there is a working relationship with Intercontinental Hotels that allows patients and families to rest and move freely within the main campus. It is also one of the first hospitals to have a department dedicated to patient and family experience.

As an established organization, Cleveland Clinic has the human capital, finances, and resources to efficiently implement favorable changes in the system. The Cleveland Clinic Innovation Center (CCIC), established in 2004, is a fine example of this operational capability. As a laboratory space on the main campus, this area of the organization has produced over 200 new medical device innovations per year along with the creation of twenty-four spin-off companies in the past decade. Many of the inventors who have contributed include physicians from within the organization.

More recently in 2008, Cleveland Clinic partnered with Microsoft Corp. to pilot the first patient-controlled data exchange between Microsoft's web-based platform health platform and eCleveland Clinic MyChart®, Cleveland Clinic's electronic personal medical record system. This was just one example of the various secure online services offered by Cleveland Clinic. Today, there is a comprehensive suite of e-services that ranges from the ability to provide real-time information to patients while they receive treatment at Cleveland Clinic, to an online resource that allows individuals from all over the world to get a second medical opinion from Cleveland Clinic physicians. This will be a service and market differentiator that has the potential to establish Cleveland Clinic as a global leader in healthcare as it provides a direct connection to individuals who may not be able to visit Cleveland.

Market Challenges

However, unlike Kaiser Permanente's Garfield Innovation Center or Mayo Clinic's SPARC Innovation Program, Cleveland Clinic has not yet fully embraced design thinking into a holistic service innovation program. In many ways, the Office of Patient Experience is still a new part of the greater system with high expectations from the rest of the organization. It will be a challenge to demonstrate its role in managing and designing for patient and family experience while at the same time balancing the work they are currently performing. While Johns Hopkins Hospital and Massachusetts General Hospital both enjoy high rankings at this time, they are also facing similar challenges as Cleveland Clinic in delivering great patient experience since they, too, are large healthcare organizations that have been successful until now without giving priority to patient experience.

Form a local standpoint, Cleveland Clinic contends with the presence of University Hospitals of Cleveland, which is taking great strides to present itself as a reputable alternative to Cleveland Clinic. With its own Research and Innovation Center (focused on biomedical research) and new facilities opening in 2010-2011, University Hospitals is a formidable competition for Cleveland Clinic in Ohio.

Our project team believes Cleveland Clinic's niche to be in a unique market space that strives to provide a premier level of healthcare service that exceeds standards and is comparable to a level of service provided by the hospitality industry. However, there is a delicate balance between providing world-class hotelier-like service while still being sensitive to those who are sick in an environment in which they do not want to be. For no matter how extravagant the healthcare stay is, the goal of patients and families will always be to return home as soon as possible.

Current Situation

Cleveland Clinic, along with the Office of Patient Experience, is concerned with the current and future state of patient experience. A good portion of the concern stems from external forces. Although the submission of standardized *Hospital Consumer Assessment of Healthcare Providers and Systems* (HCAHPS) scores is currently "voluntary" (only voluntary hospitals receive federal reimbursement), the federal government is encouraging all hospitals to provide this survey information to (1) produce data about patients' perspectives of care that will allow for the comparison of hospitals on topics that are important to consumers, (2) create new incentives for hospitals to improve quality of care, and (3) enhance accountability by increasing

transparency of the quality of hospital care provided in return for the public investment. Participating hospitals today are able to receive Medicaid and Medicare reimbursements after a "pay for reporting" model. Cleveland Clinic currently ranks above the national average on questions that ask patients about the overall hospital experience. However, patient responses referring to questions focusing on detailed aspects of the patient experience (i.e. doctor-patient communication, nurse-patient communication, noise levels, cleanliness, pain management) are below the national average.

With the strong possibility of the federal government switching into a "pay for performing" model in the near future, it will be even more difficult for Cleveland Clinic to receive reimbursement since there will be a requirement to perform within the 90th percentile in order to get money back. This is no small amount considering the current reimbursement, which is 1-2% of all revenue, is close to $12 million.

In addition to impact from reimbursement, patient experience is at the forefront of Cleveland Clinic initiatives as declared by its recent guiding principle of "Patient First." With "Patient First," there has been an emphasis on the primacy of patient care, comfort, and communication in every activity caregivers take.

In order to understand the current state of innovation in healthcare, our project team has mapped in **Appendix: 2010-2011 Healthcare Innovation Landscape** various industries and organizations that may directly and indirectly affect patient experience discourse. For example, one of the eight areas that might be a place of gathering insight is conferences as noted on the map. In addition to the Empathy and Innovation Conference hosted by the Office of Patient Experience, there are numerous conferences such as TedMed and the Service Design Network's conferences where conversations around innovations in patient experience are forming. This map will be one tool our project team will use as we explore design opportunities.

Another tool our project team has put together is a mapping of the kinds of healthcare innovation in the industry (See **Appendix: Kinds of Healthcare Innovation**). We collected a dozen or so notable healthcare institutions/ organizations and mapped them onto two dimensions: *human oriented* versus *non-human oriented* and *research dominant* versus *practice dominant*.

We noticed that the healthcare innovation space can be captured in four kinds of innovations:

- Quality & Safety Innovation
- Biomedical Research Innovation
- Equipment/device/technology Innovation
- Service Innovation (design thinking)

This differentiation provides an understanding of what kind of innovation is currently present within a healthcare organization. It is important to note that being in one space or kind of innovation does not mean the organization is naïve about other forms of innovation. For example, Johns Hopkins Hospital has great biomedical research innovation and uses state-of-the-art equipment in its facilities. However, from their creation of a Center for

Innovation in Quality Patient Care, their emphasis on healthcare innovation seems to lie in the quality and safety space.

Likewise, Cleveland Clinic has great biomedical research (Lerner Research Institute), a quality and safety program (Quality & Patient Safety Institute), and also state-of-the-art technology (Cleveland Clinic Innovation Center). The next step for Cleveland Clinic is to become a leader in the service innovation space. This is also the space where Mayo Clinic and Kaiser Permanente have established themselves. Our project team believes it is in this space where matters of patient experience can be fully and holistically explored.

2. Problem Statement

Our project team identified several interesting patient experience issues (Please see **Appendix: Interesting Issues** for a list of some of the issues). However, in order to identify a targeted area of exploration, we decided to focus on the following issue:

An Important Issue

Cleveland Clinic is a physician-led organization yet there is the possibility and even necessity of not being a physician-led organization.

This issue captures an insightful contradiction that is similar to a principle of leadership - being a leader without being a leader. When this important issue found in leadership is articulated in this way, one can begin to explore a range of what it means to be a leader. Although a leader is commonly understood as an individual with a clear title and position (formal leader), this issue also reveals a type of leader who is characterized by her service to others (servant-leader), whose actions reflect the role of a facilitator as opposed to a commander.

Likewise, Cleveland Clinic's physician-led organization is an example of one form of leadership. There is much to boast in this culture where physicians lead the programs, the various institutions, and importantly, innovation. Physicians are the soul of Cleveland Clinic and patients and families travel from near and far to receive treatment from these individuals. However, a major challenge to having a culture that is patient centered comes from physicians who are well-established and may not set patient experience as a priority in their daily interactions with those for whom they care. Hence, having a physician-led organization can be a great strength yet weakness for Cleveland Clinic.

It is with an awareness of this issue that our group has decided to focus on the following problem:

The Problem Statement

Cleveland Clinic needs to enhance patient-doctor communication but those who work there do not believe it is in their control to alter physicians' behavioral interactions with patients and their families.

Significance

This is a significant problem because many of the chief complaints from patients and family members have to do with the poor quality of interactions with their doctors. In many cases, the sum of great communication with nurses, great service from other parts of the clinic, and overall experience

during their treatment can be offset by one difficult moment with a physician. Therefore, it is a critical problem that demands much attention. In addition, this problem is closely tied to the issue of doctor and patient communication addressed by questions 5-7 of the HCAHPS.

3. Goals & Objectives of the Project

What We Seek to Accomplish

Our project team expects to provide several design directions to assist Cleveland Clinic and the Office of Patient Experience in improving doctor-patient communication. There will be an exploration of possibilities through a rigorous design process. The team hopes to get physicians, nurses, staff members, patients, and families involved in the discovery and synthesis process.

Our project team believes that physicians are key actors in the patient experience. Therefore, impactful change in communication within Cleveland Clinic will only happen when physicians embrace a culture of communication since they are the leaders in the organization.

Stated again, at minimum, the team hopes to provide several design resolutions for Cleveland Clinic to implement across the organization; at best, the team hopes that all staff members, including physicians, will be involved in a participatory design process to resolve the proposed problem.

Who Will Benefit

Patients and their families would be the primary beneficiaries of the project. In addition, we expect physicians and other staff members to benefit from a successful project as they participate in the research and design process and encounter opportunities to form empathy. We also believe this project has the capability to empower the Office of Patient Experience as a source of innovation and design thinking.

To an external audience, such as a prospective patient or family member, we hope this project strengthens Cleveland Clinic's brand promise for high quality patient experience in the giving of care. A successful project may also lead to other joint projects between Cleveland Clinic and the Weatherhead School of Management's design program. This type of community is essential for the greater Cleveland area for it can provide a resource and opportunity for innovation. Furthermore, a model for patient experience based on designing for change in physicians' behaviors could be established for others to replicate, modify, and further explore.

Constraints

As mentioned before, Cleveland Clinic has a very strong physician-led culture, which may make it difficult for physicians (as well as non-physicians) to vocalize the need for change in the aspects of doctor-patient communication. In another words, we must deal with the question, "how does one ask doctors who are excellent at what they do to change?"

Secondly, direct involvement with physicians is highly desired for the project.

However, there is a potential lack of access to physicians owing to their schedules, a possible lack of interest, or our inability to make a convincing argument for their involvement. Not everyone is optimistic and willing to be a part of the messy way designers often work.

Thirdly, the only people who may have substantial influence over physicians' behavior are Chief Executive Officer Delos Cosgrove (as the formal leader) and Chief Experience Officer Dr. Merlino (as the representative of patient experience to other physicians). For an organization that staffs over 1,700 physicians, the limited channels of influence pose as a constraint. In the end, it may be a challenge to have our voices/design ideas heard.

Fourthly, even if more physicians could impact other physicians by vocalizing the need for change (because Cleveland Clinic is run by practicing physicians), it may be difficult for a physician to confront another physician about altering his/her way of communicating with patients since a physician does not know when he/she will need the other physician's assistance at a later time. The complexity and delicacy of already established relationships between physicians may make it difficult to propogate design ideas throughout the organization.

Another constraint can be an unwillingness of other staff members to try out the design process if they have tried other things before and were previously disheartened.

Finally, there is the possibility of adding stress to those who could be involved with this project. Many of the individuals with whom we would like to work will already be involved with other areas of Cleveland Clinic and it may be tiresome to have them engage in our project in addition to their current work.

Risks

There is an impending risk of physicians' unwillingness to change after our team's engagement for a year. There is a chance that this would solidify the already prevalent notion that it is difficult, if not impossible, to alter physicians' behaviors. Such a consequence could further damage this aspect of Cleveland Clinic's culture.

If the project's design ideas are implemented an no results are seen, especially in terms of HCAHPS results, it will be difficult to justify further exploration of patient experience using the design approach and design methodologies that will be a part of the project.

Potential Benefits

According to the Office of Patient Experience, one point higher in the HCAHPS survey relating to the doctor-patient questions (Q5-Q7) may be the difference between Cleveland Clinic being in the 50th percentile and the 90th percentile in this category. Since this domain of doctor-patient communication has been the most perplexing issue for the Office of Patient Experience (other domains, such as staff responsiveness, noise level reduction, and pain management, are being addressed through various initiatives), moving a step forward in resolving aspects of this issue would be a breakthrough for Cleveland Clinic as well as the Office of Patient Experience.

Desirable Features of the Solution	We expect to have a rigorous design process throughout the project engagement. One aspect that will be critical to the exploration of physician behavior/interaction will be to conduct design research. In some ways similar to market research but essentially different, our project team will offer several design research methods and request for collaboration with members of the Office of Patient Experience. This type of design research will be critical in gathering insights that will help identify physician, staff, patient, and family needs. It is from these needs that design principles and implications will be formed. The design principles and implications will help generate ideas and concepts for the project. This process will be characterized by multiple iterations of prototyping and evaluating. Ideally, we desire for participation from the Office of Patient Experience, physicians, patients, and family members. The Office of Patient Experience and Cleveland Clinic can expect to receive final deliverables/concepts in the form of communication design, design artifacts, and/or interaction design products. We hope that participants from Cleveland Clinic will be involved throughout the entire process and that the final concepts will be a synthesis of a collaborative participation.

4. Schedule of Work

January - February 2011	Beginnings of design research. This may include shadowing, interviews, observations, contact meetings, ethnography.
February - March 2011	Analysis of all gathered data (design research) and the beginnings of brainstorming concepts and ideation.
March - April 2011	Prototyping and evaluating. If there are any milestones to share our findings and thoughts as we progress, this may be a good time to have ongoing meetings with the Office of Patient Experience if this has not already happened.
April 2011	Concluding the last phases of the project development and possible discussions of implementation. The final presentation would be shared at this time.
May 22-24, 2011	Participation at the Empathy and Innovation Conference.

APPENDIX: Institutes

Cleveland Clinic Institutes

Heart & Vascular Institute. Ranked No. 1 in the U.S. for cardiac care by *U.S.News & World Report* every year since 1995, the Sydell and Arnold Miller Family Heart & Vascular Institute is the largest and busiest heart program in the nation. The institute has the largest surgical valve practice in the country and is one of the busiest transplant centers in the country.

Digestive Disease Institute. Ranked No. 2 in the nation for digestive disorders by *U.S.News & World Report*, the institute is one of the largest in the country. It is also one of the first of its kind to integrate specialists in gastroenterology and hepatology, colorectal surgery, hepato-pancreato-biliary and transplant surgery, general surgery and nutrition into one model of care.

Urological & Kidney Institute. Ranked No. 2 in the nation for urological care by *U.S.News & World Report* every year since 2000, the Glickman Urological & Kidney Institute is a world leader in treating complex urologic and kidney conditions in adults and children. Institute physicians have pioneered medical advances including dialysis, partial nephrectomy, laparoscopic and robotic urologic surgery, and the bioartificial kidney.

Orthopaedic & Rheumatologic Institute. Here, patients receive innovative care for joint, bone, muscle, connective tissue and immune disorders. *U.S.News & World Report* ranks Cleveland Clinic's rheumatology program No. 2 in the nation and its orthopaedic surgery program No. 4 in the nation.

Neurological Institute. This fully integrated institute is a leader in treating the most complex neurological disorders and in advancing innovations such asdeep brain stimulation, epilepsy surgery, stereotactic spine radiosurgery andGamma Knife® surgery. Our neurology/neurosurgery program is ranked No.6 in the nation by *U.S.News & World Report*, and our pediatric neurology/ neurosurgery program is ranked No. 4.

Cancer Institute. More than 250 cancer specialists annually serve 26,000 patients, applying the most effective techniques to achieve long-term survival and improved quality of life. The Taussig Cancer Institute's extensive research program gives patients access to a variety of clinical trials. Our cancer program is ranked No. 12 in the nation by *U.S.News & World Report*.

Pediatric Institute & Children's Hospital. Backed by Cleveland Clinic's resources, the institute offers full medical, surgical and rehabilitative care for infants, children and adolescents. A staff of 300 full-time pediatricians and pediatric specialists accommodates 500,000 patient visits annually at our main campus, Shaker Campus, community hospitals and family health centers.

Nursing Institute. Cleveland Clinic nurses collaborate to provide high quality patient care on specialty-based nursing units within inpatient, outpatient and operating room settings throughout the Cleveland Clinic health system.

Additional Cleveland Clinic Institutes

Anesthesiology Institute
Arts & Medicine Institute
Cleveland Clinic Lorain
Cole Eye Institute
Dermatology & Plastic Surgery Institute
Education Institute
Emergency Services
Endocrinology & Metabolism Institute
Head & Neck Institute
Imaging Institute
Lerner Research Institute
Medicine Institute
Ob/Gyn & Women's Health
Institute
Pathology & Laboratory
Medicine Institute
Quality & Patient Safety Institute
Respiratory Institute
Wellness Institute

All data from Cleveland Clinic's latest "Facts & Figures" brochure, last revised in May 2010.

APPENDIX: Services

Services Provided

Inpatient

- Birthing room*
- Heart catheterization—diagnostic (adult)
- Heart catheterization—diagnostic (child)
- Elderly/disabled (Skilled nursing care)
- End-of-life services (Hospice, Pain management and Palliative care)
- Heart surgery (adult)
- Heart surgery (pediatric)
- Hospitalists
- Infection isolation room
- Heart catheterization—treatment (adult)
- Heart catheterization—treatment (child)
- Neonatal intensive care
- Neonatal intermediate care
- Cancer services
- Psychiatric care (Partial hospitalization and Psychiatric emergency services)

Outpatient

- Alzheimer center
- Arthritis center
- Bariatric/weight control services
- Breast cancer screening/mammograms
- Certified trauma center*
- Chemotherapy
- Chiropractic services
- Complementary/alternative medicine
- Dental services
- Heart catheterization—diagnostic (adult)
- Heart catheterization—diagnostic (child)
- Extracorporeal shock lithotripter
- Fitness center
- Genetic testing/counseling
- Geriatric services
- HIV-AIDS services
- Home health services
- Heart catheterization—treatment (adult)
- Heart catheterization—treatment (child)
- Kidney dialysis
- Chemotherapy
- Physical rehabilitation
- Psychiatric services (Child/adolescent services, Consultation, Geriatric services and Outpatient care)
- Sleep center
- Stop-smoking program
- Sports medicine

APPENDIX: Services (Continued)

- Substance-abuse programs
- Urgent-care center
- Women's health center
- Wound management services

Patient/Family Support Services
- Alzheimer center
- Ambulance services
- Help with government services
- Chaplaincy/pastoral care services
- Cancer services
- Patient support groups
- Patient representative/ombusdman
- Transportation for elderly/handicapped
- Translation services

Community Outreach
- Health fairs
- Health screenings
- Meals on wheels*

Imaging Services (Diagnostic and Therapeutic)
- CT scanner
- Diagnostic radioisotope facility
- Magnetic resonance imaging (MRI)
- Multislice spiral CT
- Single photon emission CT
- Ultrasound

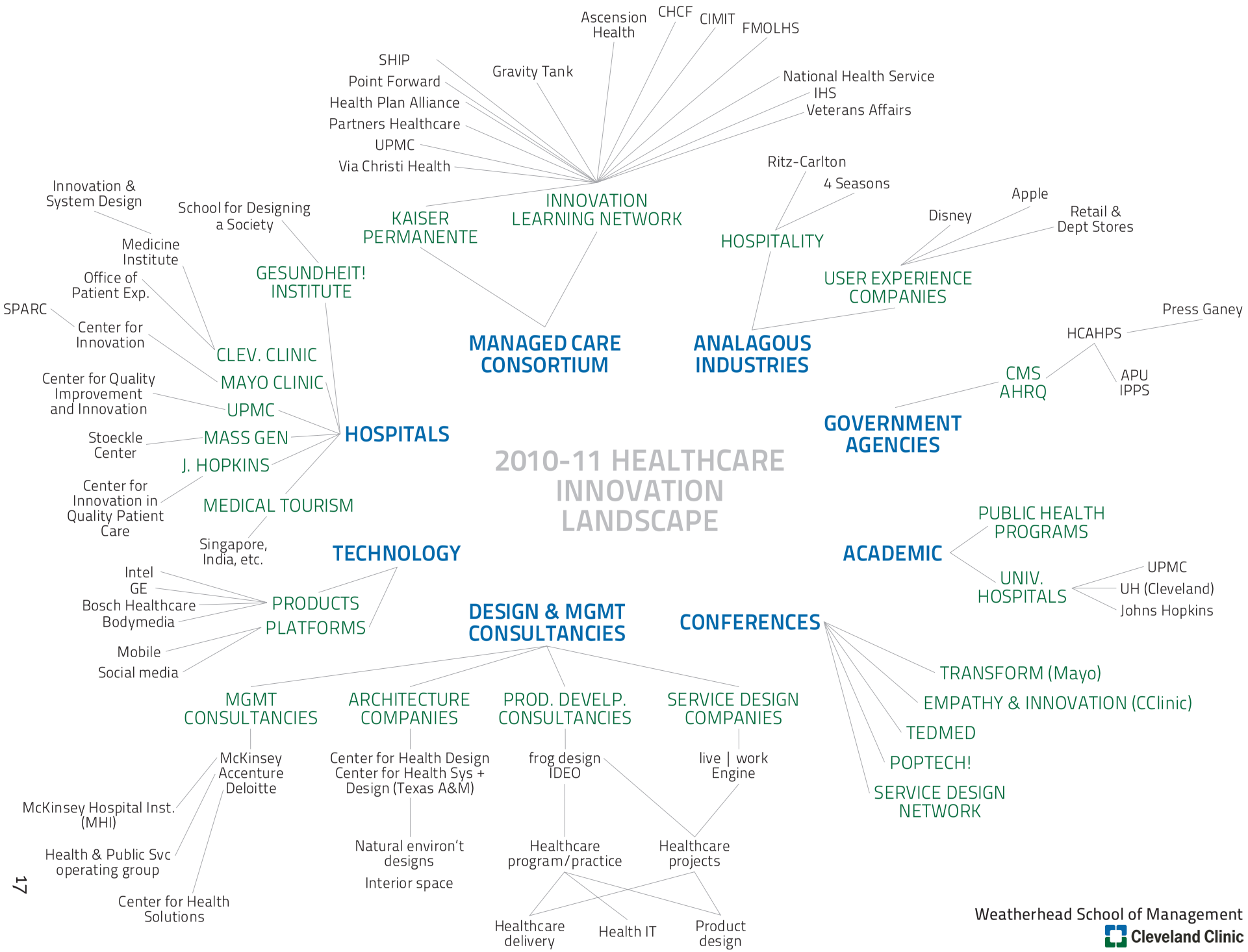
* At another location in healthcare system or through arrangement with another provider.

All data from American Hospital Association, last updated July 2010.

APPENDIX: Interesting Issues

Multiple Issues Identified by Project Group for Possible Exploration

- Cleveland Clinic wants to think of patient experience broadly as an entire journey versus thinking about patient experience only in terms of aspects directly affecting HCAHPS domains
- There are Cleveland Clinic staff members who think their work directly affects patient experience versus those who do not see a connection
- Valuing patient AND family experience versus only focusing on patient experience
- Patients valuing overall Cleveland Clinic experience versus being dissatisfied with particular aspects of the patient experience
- "Empathy and Innovation" as desirable themes versus a culture that fears/respects numbers and makes decisions based on past results
- Maintaining existing programs versus developing new products/services/programs guided by the new Office of Patient Experience team's vision
- Integration and standardization of innovative services versus the personality and culture of an individual satellite hospital
- Cleveland Clinic is a physician-led organization yet there is the possibility and even necessity of not being a physician-led organization



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Kinds of Healthcare Innovation