**Mission**
Children’s Hospital of Pittsburgh of UPMC is dedicated to improving the health and well-being of children, teenagers, and young adults through excellence in patient care, teaching, research, and advocacy.

**Vision**
To be the world leader in children’s health

**Values**
Putting patients and families first through:

- Quality and Safety
- Dignity and Respect
- Caring and Listening
- Responsibility and Integrity
- Excellence and Innovation
Guiding Principles

1. We see the world through the eyes of a child and embrace fun as part of our culture.

2. We believe zero harm to patients and staff is possible and strive for it every single day.

3. We advance the spirit of community and philanthropy.

4. We introduce ourselves to people and make them feel important and welcome.

5. We actively listen, ask clarifying questions, and strive to exceed expectations.

6. We are accountable for our work, apologize for failures, and seek to solve problems even if we did not create them.

7. We work as a team: we do not blame others, build trust through transparency and help our colleagues succeed.

8. We trust and empower the people closest to the work to speak up when they have an idea or concern and to take timely and appropriate action.

9. We encourage healthy debate and diverse opinions when presented in a positive and constructive manner.

10. We embrace change and encourage new ideas or innovations from all people in the organization.

11. We learn from our experiences and use data and analytical tools to continually improve.

12. We openly recognize and appreciate good work and acknowledge kind actions by saying thank you.
The Process
Scenario Planning Process at CHP:
Scenarios are stories about the future. Scenario planning encourages an organization to challenge deeply held assumptions and to chart a clear path forward through difficult and uncertain times. Scenario planning allows an organization to engage around what it does not know and/or cannot control, as well as around external forces that define the environment in which it must operate. These unknown forces that shape an entity’s external environment are called “critical uncertainties” and form the foundation on which scenarios are created.

In scenario planning, we do not choose one scenario and plan toward it, but plan around a set of scenarios that elevate the most critical uncertainties we need to address. The future will never be exactly as described in any one scenario, but will be made up of components of all of the scenarios that are explored.

Children’s Hospital of Pittsburgh of UPMC (CHP) began its scenario-based strategic plan refresh in the first quarter of 2015 with a series of interviews of a representative set of key leaders within CHP, UPMC, CHP’s Foundation, and the community. The interviews uncovered key strategic themes and a foundational question that has worked as the underpinning for the scenario content presented here. Based on those interviews the following strategic focal question emerged:

How can Children’s (UPMC’s Pediatric service line) most successfully grow and evolve its services and broaden its impact over the next 10 years in a dynamically changing, fiscally challenging, and increasingly competitive health care environment?

With this question in mind, a group of CHP leaders met in June to develop the scenario content presented in this document. The scenarios explore the following set of critical uncertainties over the next 10 years:

- Delivery of Care
- Pediatric Medicine and Medical Advances
- Reimbursement and Funding
- Population Health
- Consumer Behavior
- Consumer Knowledge, Interest, Access
- Future Pediatric Workforce
- Competition
- UPMC
- Regional Economics
The 2026 Healthcare Scenarios are framed by two critical uncertainties:

- **Funding Sources** — Will the sources be unconstrained or constrained? Will reimbursement in pediatrics be capitated or fee-for-service?
- **Impact of Pediatric Advances on Demand** — Will advances lead to an increase in demand for pediatric services or a dramatic decrease in demand for services?

The intersection of the two critical uncertainties created four divergent scenarios. These four scenarios were used during CHP’s strategy sessions to help stretch thinking about the different potential futures of funding and demand over the next 10 years, any of which it may face.

**Robust Strategies for the Future:**
On September 16–17, 2015, a broad group of CHP and UPMC Leadership spent time discussing the strategic implications of the CHP scenario set (see Appendix A) on 21 various strategic initiatives that have been identified by the organization as part of its strategic planning process. The following strategies emerged during that session as robust strategies for CHP. Robust strategies work well in all four CHP scenarios or have no downside associated with any scenario. As such, scenario planning is used to explore and mitigate risk. Robust strategies are key to successful mitigation.
CORE STRATEGIES

Grow Primary Care Presence in Regional Markets

Primary care is dynamically changing. We need to maintain a strong relationship with families.

We need to innovate the primary care model and the continuum of care with a focus on our population health strategy. This will mean fully developing the medical home, team, and coordinated care and should complement UPMC Health Plan initiatives.

Our goal is to grow our covered lives. Brand is important. As we work to extend our network, we must more effectively leverage our brand. We need to consider whether we should be expanding into young adults. All of this needs to be aligned with and feed into the UPMC overall continuum of care.

Key Initiatives Include:

- Grow CCP presence in contiguous geographic markets.
- Integrate adolescent and young adult services with primary care pediatrics to create a virtual behavioral health and medical home for young adults (18 – 26 years old) with 24/7 access.
- Integrate Children’s services with complementary UPMC adult services to better coordinate care from birth to adulthood.

Be the Nexus of Chronic Disease Prevention and Management

This will reduce costs, improve clinical outcomes, increase patient family satisfaction, and facilitate a stronger alignment of pediatric services across the continuum of care. This will require stronger case management that includes psychosocial interventions. Subspecialties and their interface with primary care are a critical success factor.

Key Initiatives Include:

- Become the nexus of pediatric chronic disease prevention and management (including behavioral health and addiction problems) for Western Pennsylvania and the surrounding regions through:
  > Creation of a comprehensive database of children and adolescents with chronic/complex disease
  > Alignment of primary care and specialty care pediatrics
  > Maximize use of physician extenders and nursing skills
  > 24/7 accessibility and telehealth
  > Targeted clinical initiatives focused on education and preventing emergent conditions
- Develop pediatric home health care capability with focus on preventive health, chronic disease management, and palliative care.
Integrate Targeted Genomic Medicine

Invest more in developing expertise in genomic research, testing, and application to impact care. Become the leaders in genotype and phenotype application to how/what we do in care.

While other pediatric institutions are highly active in genomic research, CHP researchers will benefit from collaboration with their adult counterparts at UPMC/Pitt who are on the frontier. A good example is in imaging technology, which can be applied to understand within cancer treatment what genes turn on and off for a patient with a particular cocktail to more quickly (48 hours) and effectively (improved outcomes) apply targeted treatment. We have the potential to target the development of this technology through research.

Key Initiatives Include:

- Integrate targeted genomic medicine into CHP specialty care practices. Develop, test, and validate the effectiveness of next-generation gene-sequencing panels that pediatric subspecialists will incorporate into their patient evaluation algorithms to:
  - Enable more timely and precise diagnoses
  - Initiate more cost-effective treatment plans

Expand Services Outside Western PA

Grow targeted pediatric and subspecialty services in other domestic and international markets.

This includes bilateral growth using telemedicine – where we expand to serve outside our traditional market and bring people from outside our catchment area to travel to CHP for treatment. This strategy will require CHP to test multiple avenues of growth to determine those that are strategically the best fit for CHP and UPMC. To accomplish this, we will need to develop an entrepreneurial team culture that is nimble so that approaches can be tailored, reshaped, or abandoned as needed. This needs to be growth for profit, not for size.

Each market may need something different. Through this strategy, we will bring and apply innovative ideas outside CHP space with other hospitals (adult and/or pediatric). We will provide new and innovative medicine and technology with partner children's hospitals or other pediatric providers (physician groups, adult health systems, etc.).

From a UPMC perspective, this strategy will impact and be impacted by aligned interests. UPMC can further advance its international agenda by featuring the unique subspecialty services of Children's.

Key Initiatives Include:

- Partner with WVU Health Care to significantly expand and strengthen its pediatric subspecialty care programs and services
- Significantly expand pediatric specialty care services in the Erie market in an effort to create a regional hub and attract patients from Western New York and Northeastern Ohio
• Evolve CHP’s major service lines into national networks of clinical excellence (pediatric cardiology, liver & intestinal care, brain care, eye center), and contract directly with large self-insured employers using an episode-of-care, risk-based pricing model
• Merge, integrate, or joint venture with another pediatric market or with services that are complementary to CHP’s

**ENABLING STRATEGIES**

**Build a Culture and Talent of Entrepreneurial Leadership**

This is about becoming a culture of nimble risk-takers. This is a part of our history. UPMC exists because of the great risks it took. Dr. Starzl, the pioneer and founder of solid organ transplantation, is a prime example of UPMC’s willingness to take calculated risks and innovate. Children’s needs to apply the calculus of risk/benefit ratio. Are we willing to take higher risks to grow our scale internationally, or are the risks too high? Stronger alignment with UPMC International Services should lower the risks internationally.

We need to recruit and retain the best, brightest, and boldest. They will attract others. Bring in thought leaders in their fields. It is a continuous cycle.

We need to educate across all levels to develop these skills. In support of our core strategies, this applies to all of our physicians, extenders, and workforce. We need to look to retrain and develop these new skills so that we develop these competencies throughout the workforce.

**Key Initiatives Include:**

• Create formal career mentoring programs for interested and qualified CHP trainees, physicians, scientists, clinical and non-clinical staff, and administrative staff
• More fully integrate and utilize physician extenders in specialty care services (24/7 inpatient and outpatient)
• Develop highly targeted leadership and staff reward and recognition programs based on achieving excellence or industry best practice in key operational metrics or behaviors (i.e. ED throughput and OR throughput; staff recognition and retention; staff loop closure on safety events)

**Align Growth of our Bench and Translational Research to Fuel Future Growth**

This is about both bench research and translational research that can be aligned to support advancement in clinical expertise. This needs to be addressed from a functional and programmatic perspective. Growth in research can occur through investment and development of junior researchers or from attracting exceptional talent from other institutions.

Do we bring in the top talent and hope for collaboration opportunities to emerge, or is there a way to identify those areas and think more strategically about how we invest and organize around research? Where are the coordination opportunities in research — whether applied research,
In applied research the coordination opportunities can be clear. In basic research, by definition, you cannot know what those opportunities might be. However, you can support a culture of collaboration to allow those opportunities to emerge and flourish. We also need to be careful not to get trapped by stereotypical views. Excellence in basic science can come from many clinical disciplines beyond Pediatrics. It is specialty-neutral.

**Leverage Philanthropy to Spark Innovation**

Philanthropy provides both funding and brand support to CHP. It plays a key role in attracting talent, funding the acquisition of talent and institutional name recognition (like St. Jude’s branding strategy) that reaches well beyond Western Pennsylvania. Marketing can never do enough. In fact, through philanthropic endeavors, relationships, and partnerships with other industries can be enhanced and developed.

Children's Foundation is a valuable strategic asset and thus should be seen as an asset in which to invest. It funds itself and invests in CHP’s strategic initiatives. Foundation dollars can be focused in areas where there is more risk, which can allow the hospital to be nimble. This strategy is directly aligned with growing research to fuel the future growth of CHP’s clinical care and impact. Funding can be focused on quality and safety advances, beyond basic research — it can fund the achievement of exceptional care. The Foundation can support CHP’s capital and working capital needs and reduce the burden on UPMC.

CHP and UPMC should strongly consider investing more in the Foundation to facilitate growth in its fund balance and annual fundraising totals. The potential to grow philanthropy to support Children’s is exciting.

**Build Data Analytics**

Use data analytics to innovate and deploy resources to effectively support strategic planning, clinical advancement, research, and behavioral economics. This leads to successful parochialization/standardization of care through clearly defined and applied clinical pathways. Data analytics can be a key enabler of population health. It can be a support to achieving increased efficiency and higher quality while reducing costs. It can be used to drive the care of the child and community.

Children’s, as the primary provider of pediatric care in the Pittsburgh region, serves a defined population that allows for better parameters in which to create predictive analytics for pediatrics.

Strong data analytics allows for a clear understanding of the value proposition(s) of CHP so that it can optimally grow and expand services.

*Key Initiatives Include:*

- Partner with the Pittsburgh Health Data Alliance to create a comprehensive pediatric predictive analytics platform that can be utilized throughout the world to transform health care delivery
• Develop 30 evidence-based, technology-enabled clinical pathways that span the episode of care (pre-admission, during the admission, and post-admission) for high-cost and high-volume pediatric conditions
• Develop and mature CHP's capabilities in health services and informatics research

**Leverage Technology to More Effectively Connect with Patients**

Leverage technology, including virtual, to improve access and connectivity with patients and their families and to complement their care. This supports and enables population health advancement and allows CHP to apply virtual and telehealth principles to provide anytime, anywhere, any way care.

**Key Initiatives Include:**

• Develop a strategic alliance with a national or international telehealth company that positions CHP as the comprehensive pediatric solution for telemedicine services delivered in the U.S. or abroad, directly to consumers or to companies as part of their benefit package.
• Integrate adolescent and young adult services with primary care pediatrics to create a virtual behavioral health and medical home for young adults (18-26 years old) with 24/7 access

**Reinvigorate the Branding Strategy**

This is about public relations, branding, and transparency around our high-quality, low-cost care and top-notch education and research. Done right, it attracts donors, educators, trustees, patients, physicians, and national and international funds.

Investment in the Foundation effort can be a key mechanism to enhance brand recognition and build a brand within and beyond Western Pennsylvania. An education campaign that is both consumer- and payer-facing to effectively communicate the cost/quality advantage of CHP should be considered.

We need to develop an effective message and way to communicate around each audience that our care is the highest quality and lowest cost among our peers. Our brand is not just about ROI — it is about the appropriate health care for children. It is about the quality. We have to watch out for the “Uberization” of health care. We need to take the moral high ground.

Locally, our brand is strong. But we are not sure how strong it is outside Western Pennsylvania. We need to recognize that “Pittsburgh” is in our name. Although locally we love our city, we need to recognize that the city has a brand problem outside of the region (but it is rapidly improving). We are proud of our community, but the Pittsburgh name may not add much value in other parts of the United States or the world.

We need to be sure that we leverage areas where we are best. We are very good, but not as famous as we should be. That impacts our ability to attract pediatricians and specialists from outside the region and school although in the past decade this perception is changing rapidly. We need to accelerate this change.
Align with New Partners from Other Industries to Develop New Methods of Care

We should create alliances in, for example, the technology industry to get ahead of the competition. We can do this with UPMC’s help and mutual benefit. This can lead to new areas of growth and innovation. It can act as a commercialization tool.

We also should form new business alliances in order to leverage our expertise in non-clinical areas such as research and education.

This enabling strategy supports CHP’s expansion strategy and is another means of developing nimbleness.
This is a world in which the population is increasingly healthy. Western Pennsylvania is in the midst of a decade-long boom that has led to dramatic economic and population growth and a significant increase in the demand for pediatric services. The growth is largely attributable to the use of hydraulic fracking to retrieve oil and natural gas from underground. Fracking has triggered the creation of a tremendous number of new jobs in production and delivery services.

Currently, health care in the United States is primarily a fee-for-service system with total price transparency, so information about the cost of various treatments is public knowledge among patients, providers, and payers. The federal government has taken over the complete funding and administration of the Medicaid system from the 50 states, and Medicaid now mirrors the broad benefits and coverage of the Medicare system.

Nationally, a sustained period of economic stability has freed up more funds for NIH grants. With these monies, researchers have come up with innovative treatments and new clinical services in the genetic profiling and therapy space. Research advances have created standardization of clinical pathways for the 40 most common pediatric diseases based on best practices. Research drives demand for health care as consumers seek to take advantage of the latest advances in diagnostics and therapeutics.

It is an era of “highly scrutinized care” where consumers have elevated expectations for quality health care and providers are focused on patient satisfaction. Hospital systems that seek to remain competitive face high workforce costs due to the need to employ subspecialists; however, growing...
numbers of young people are drawn to careers in health care because of the high salaries and job satisfaction they offer.

Hospitals and health systems are challenged to avoid the potential for overutilization, inefficiency, and waste. They must contend with extreme competition for patients at every level, and the lucrative health care market has attracted a host of new entrants. Walmart established a chain of pediatric offices; Apple launched an online iDoc diagnostic application; and Amazon has captured an impressive portion of the prescription therapeutics market.

**Plausibility of Scenario**
Advances in genetic profiling and diagnostic capability allow for in vitro diagnosis of the predisposition of a growing list of pediatric conditions. The digital marketplace and sophisticated search engines allow consumers to be increasingly knowledgeable of treatment options, cost and quality of care, and the value equation associated with care.

**Some Areas of Strategic Relevance**
- New Competitors: Cleveland Clinic Pittsburgh Children’s Center, Walmart
- Potential for consumer overutilization, system inefficiency and waste
- Growing, redefined workforce
- Rise in Pittsburgh population associated with an economic boom

**The story of a 10-year-old and her family in 2026 …**
Elizabeth Jones, 10 years old, is attending a private school, where her science classes take place in the Jones Pavilion. The economic boom that allowed her father, an owner-operator, to expand from one tractor-trailer to a dominant OTR fleet also allowed him to make a substantial donation to the school. In addition, the Joneses endowed the Jones Ambulatory Surgery Center at the new Cleveland Clinic Pittsburgh Children’s Center (CCPCC) at South Side Works, a small but service-oriented pediatric hospital and ambulatory specialty mall. Elizabeth was born at 36 weeks gestation, and her genetic profile indicated a propensity for reactive airway disease, so she has been followed at CCPCC in the Pulmonary Clinic for preemptive testing, allergy shots, and environmental counseling that have kept her asthma-free up to this point. Although the Jones family has ample indemnity coverage, they pay cash for these services from their HSA since another system in the area is the only pediatric specialty network included in their coverage. Its Pulmonary Clinic is overwhelmed since the population health movement of the late 2010s never caught on and the return of heavy industry to Pittsburgh has resulted in deteriorating air quality.

The Jones family is familiar with the other hospital, however. Elizabeth’s 16-year old brother, Tom, has severe autism, like many other children in their community. Research suggests that the increasing prevalence of autism also might be related to environmental pollution, including unidentified toxins in the water table due to fracking in the Fox Chapel area where the Jones family lives. In addition to behavioral and educational intervention, he is a frequent inpatient at the other hospital due to exacerbations of his chronic constipation. Although his chronic conditions qualify him for generous Medicare coverage (which replaced Medicaid five years ago), it has been difficult to get him in to outpatient bowel management sessions due to high demand and limited appointment times. The hospital operates under limited hours imposed by the SEIU, and GI specialists are in high demand throughout the country.
The Joneses feel fortunate. Their financial status allows them better access to pediatric services than Jones Trucking employee families. Although they have good government insurance funded through payroll taxes to their employer, there are significant waiting lists for routine care, including elective surgeries. One of the children of the Refrigerated Division’s foreman had to miss a year of high school football due to the queue for hernia repair. Despite generous fee-for-service reimbursement for services, the other hospital is highly regulated and most of its limited surgical availability is consumed by trauma, cancer, transplant, and cardiac procedures. Although CCPCC can schedule elective surgery within a week, most Jones employees cannot afford the high copays for out-of-network services.

Elizabeth’s father remembers when he played football — today’s version seems more like laser tag, as proximity detectors on the players “predict” a tackle. Plays are automatically whistled dead before contact even occurs, obviating the concussive injuries that are now known to cause long-term mental impairment in those who are genetically susceptible. Despite that, there are still extremity and joint injuries that require care provided by WPIAL contract services through local Walmart urgent care centers, with surgical procedures provided by the local hospital’s Sports Medicine specialists as needed (though often following wait times of up to three months for elective procedures).

**Scenario 1: Even More with Less**

This is a world in which high consumer demand for health care is fueled by advances in personalized medicine and sophisticated informatics tools that drive population health. Reimbursements by insurance companies and government programs are down. Health systems are highly selective about the services they provide and manage their expenses closely by means of low-cost alternatives and the promotion of public education and prevention. Efficiency and the avoidance of
crises — such as last-minute visits to the ER — are top goals. Medicaid provides increased incentives for providers with strong population health models.

Demand has been further driven by a Middle East respiratory syndrome (MERS) pandemic that originated on the East Coast and quickly spread globally. Hospital systems are actively recruiting additional pulmonologists as they struggle to care for a growing number of patients infected with the virus.

Consumers are frequently frustrated as their demands for best treatments often go unsatisfied by cost-conscious health systems. Given their strong preference for the highest level of medical expertise, patients can and do travel outside of their immediate geographic area for better care.

The health care workforce is team-oriented, with redesigned and flexible roles. As a rule, the least expensive provider generally provides care for returning patients. With lack of adequate reimbursement for subspecialists, hospital systems ensure that they exhaust the full breadth of their employees' qualifications. Pediatricians staff primary care centers and refer only those children with very serious medical needs to subspecialists. Competition is fierce among health care providers, and the possibility that a “player” already in the market may expand further is ever-present.

The provision of care is more and more decentralized, and treatment is embedded in the community, where lower-cost alternatives to hospitals and clinics are located. Health system managers have partnered with local businesses, schools, and community organizations to foster health education and healthy behaviors among consumers.

**Plausibility of Scenario**

Enabled by the use of informatics and the avoidance of overutilization, health care is highly integrated. Its delivery is also streamlined, such that a prescribed pathway for the diagnosis and treatment of most conditions has been or can be developed. Technological advances have permitted survival of ever-younger premature infants.

**Some Areas of Strategic Relevance**

- Seamless data informatics critical to success
- Optimizing population health
- Decentralized, community-based care
- Team-based, flexible workforce
- Growing funding gap — role for Foundation

**The story of a 10-year-old and her family in 2026 …**

Ten years ago, Margaret Jones was pregnant with her fourth child, Elizabeth. Early on, Margaret’s fetus was genetically tested so that the family could be alerted to any potential medical conditions that might be indicated. Asthma runs in both sides of the family, and as highly engaged health care consumers, her parents actively sought out care and advice at the Women’s Hospital that is part of a large hospital system in their area.

Elizabeth’s testing in utero allowed her doctor to develop a treatment plan for her in the event she developed one or more conditions, including asthma. She has just returned from a visit to the
local CCP office for management of her chronic asthma, which surfaced when she was 2. Despite having asthma, she has never been to the Emergency Department at her local pediatric hospital, nor has she ever been admitted. ED visits and admission for asthma are unusual at her hospital, due to highly coordinated preventive care and early intervention for exacerbations. She is monitored closely at school, where a CCP-sponsored clinic sees her weekly for peak flow monitoring and to adjust her medication regimen. Her Medicaid plan did cover a HEPA-filtered vacuum and HEPA filtration system for her home, which have helped quite a bit.

Much of the success of Elizabeth’s treatment can be attributed to the population health initiative in her area, which stresses the importance of preventive care. The local health system has partnered with local businesses and schools to foster health education and healthy behaviors among consumers. At Elizabeth’s school, the system sponsors a health curriculum for every grade and office hours each day with a medical assistant, who is available to examine students and meet with parents. The materials are great for kids and include brochures and web resources for parents and families.

Elizabeth’s father is an employee of a local trucking company and is paid by the mile. He doesn’t get as many loads as he would like, as trucking is a popular occupation and the area is not a thriving industrial market. Her mother works for a $25/hour union-mandated minimum wage in environmental services at the local hospital. Despite being employed, they receive their health coverage through Managed Medicaid, which now covers over 60 percent of the residents in their area.

Elizabeth’s 16-year old brother, Tom, who has autism spectrum disorder, was hospitalized last year during the third MERS epidemic that swept through the state. His cot was in a large tent on the upper level of the pediatric hospital’s parking garage, along with nearly 100 other pediatric patients requiring acute care for MERS. This has been a rapidly mutating virus, and vaccines have not been effective in preventing its spread to date. Fortunately, the virulence has decreased somewhat with mutation. Other than this hospitalization, Tom’s behavioral issues and his chronic gastrointestinal problems are managed almost entirely by the PA assigned to his care by the CCP office; she is in regular communication with the family over their Apple holographic app, TraVers (slogan — “It’s Better Than Being There”).

Like so many others, the Joneses’ neighbors are plagued by allergies, and one child has early-onset lupus, which was predicted through genetic testing. Although many diseases, such as lupus, are now curable through proven genetic therapies, such procedures are not covered by Medicaid and are out of reach for most consumers. The neighbor family has joined a support group, and they are actively lobbying for government regulation of therapeutic pricing.
Scenario 3: We Woke Up in Canada…

This is a world in which continued pressures on health care in a weakening economy have all but eliminated private health insurance options, leading to the rise of socialized medicine, which incents the use of lower-cost online services. During the eight years of the ACA, Americans had high utilization rates of health care, but after the Act’s repeal, overall reimbursement fell drastically. Health systems shrunk their workforces, automated numerous processes, and replaced employees with technological advances. The government incented the continued downsizing and efficiency moves by offering attractive reimbursement for online/virtual delivery approaches. Consumers face substantial barriers to access health care. Those in immediate need of serious care receive it. Others wait.

Consumers are significantly disengaged around health and wellness as many are struggling to obtain decent employment and a tolerable quality of life for their families. With these challenges, people opt for the bare minimum in care, skipping preventive checkups and proper management of chronic disease. Episodic and acute ER visits are the norm, and the model of population health has been severely damaged. The result of disengaged consumers and the growth of online delivery of care is a significant reduction in overall demand for local hospitals. Highmark, like many integrated finance and delivery systems, continually optimizes its footprint and contracts with other care providers.

Physical facilities and the size of the health care workforce have been reduced dramatically. This environment slowly weeded out smaller health systems and hospitals across the country. The select group of large institutions still in operation chose to curtail certain services and to focus resources and energy on their strengths. Not long afterward, a large, Internet-based medical company entered
these local markets, where it uses an online platform to triage patients and direct them to a regional hub for high-acuity care.

The bleak outlook for rewarding careers has caused fewer students to attend medical school, and the number of physicians graduating from American universities and entering practice has dropped to a historic low. Likewise, physician wages continue to fall, creating problems with recruitment, high turnover, and low-quality care. These conditions have subsequently wiped out the sizable progress made in recent years in improving patient satisfaction.

**Plausibility of Scenario**

Increasing U.S. action to combat the Islamist militant group, ISIS — as well as ongoing expenditures for Iraq and Afghanistan — have the potential to significantly increase the country's defense budget, putting added pressure on the federal deficit, straining the economy, and further depressing government reimbursements for Medicare and Medicaid patients. NIH funding for medical research continues to drop, which also has the potential to stagnate innovation and the development of new clinical services.

**Some Areas of Strategic Relevance**

- Brain drain within UPMC and pediatrics
- Population health partnerships in the local community (schools)
- Capitation in pediatrics
- Highmark contract not extended to CHP beyond 2022

**The story of a 10-year-old and her family in 2026…**

Elizabeth Jones, 10 years old, and her mother are in a familiar place — the Emergency Department waiting room at the local children's hospital. In that setting, most children would be bored — the same toys, bubble machines and iPads (what a blast from the past!) seem to have been there since at least 2015. Elizabeth, however, doesn't have time to think about boredom as an asthma attack has made her short of breath and feeling anxious. Sadly, her asthmatic condition wasn't properly diagnosed until just last year.

Elizabeth lives with her father and mother and three teenaged brothers. Her hometown is heavily polluted and has some of the poorest air quality in the country. Elizabeth’s parents grew up in working-class steelworker families in the same area. Her father is a short-haul trucker, and her mother works part-time as a bank teller. Both parents and many of their relatives are long-time smokers. Elizabeth’s 16-year-old brother, Tom, was diagnosed with autism a number of years ago.

It is late afternoon at the children's hospital, where the ED waiting room is packed with parents and children. The registration clerk looks bored and seems to have no incentive to move the line along. Elizabeth and her mother know from experience that it will be a long, long night.

Many of Elizabeth’s friends have asthma, probably caused by growing air pollution due to the poor economy and the breakdown of environmental protections that require investment. Although her Medicaid ACO incentivizes her CCP physicians to keep her out of the ED, the shortage of health care providers makes access at the primary care level next to impossible. She is generally seen only once
a year, when she receives immunizations and she and her mother get a quick lecture on how she can take better care of herself and manage her asthma.

Elizabeth’s father is out on the road, driving a 30-year-old diesel tractor-trailer that spews out a black cloud of exhaust wherever it goes. Her 16-year-old brother is at home alone — not a great place for an autistic teenager, but the local schools have no resources to manage his behavior, and he is usually content to be parked in front of a TV and watch reruns of “Gilligan’s Planet.” He is also a frequent visitor to the ED for abdominal pain and chronic constipation, but the waiting room is a nightmare of stimulation for him, so his parents try to manage him with laxatives and enemas at home as much as possible.

After waiting seven hours, Elizabeth is finally taken back to the triage area, where her pulse oximetry shows a saturation of 83 percent and her respiratory rate is in the 40s. A recent nurses’ strike has severely limited beds, so an ambulance is called to transfer her to the nearest open acute care pediatric bed in another town. With her husband on the road, Elizabeth’s mother cannot accompany her and must return home to attend to Tom, who she hopes has not left his place in front of the TV.

*Scenario 4: Science Pays Off!*

This is a world in which pediatric advances such as the RSV vaccine and other drug and medical advances have led to a dramatic reduction in illness and a much lower demand for pediatric services by 2026. The RSV vaccine is now known to be capable of altogether eliminating asthma and respiratory ailments in infants and children. Other chronic diseases and conditions, such as autism, are receiving significant attention. Health care systems continue to receive generous reimbursements in pediatric care through a fee-for-service model. The result is overutilization and
an increasingly fragmented system of care. Because advances lower demand for traditional services, the focus has turned to the creation of new areas of care, managing the reduction in hospital beds, and development of new services lines.

With such a bright outlook for pediatric health care, competition is on the rise. Adult hospitals and systems enter the pediatric market, partnering with nationally recognized pediatric hospitals to provide high-reimbursement services and attract patients from the area's children's hospital. Large companies such as CVS, Walmart, and Target are taking advantage of local opportunities by providing convenient pediatric care with nurse practitioner-led clinics in their stores. In response, two large national insurance companies merge and use their market power to steer patients toward select networks that offer more coordinated care.

On the whole, American consumers are engaged and show a high level of interest in their care and in maintaining healthy lifestyles. They take advantage of preventives services such as regular checkups and screenings, and stay up-to-date vaccinations. Due to improved health in the pediatric population, the number of visits to subspecialists continues to fall. Providers struggle to adapt and keep up with self-directed care. The pediatric workforce was forced to adjust, becoming smaller with redefined roles to better fit this new model.

**Plausibility of Scenario**

Current success with the rotavirus and other vaccines, along with a wide range of vaccines for chronic disease that are in development, support the logic of this scenario. Such vaccines and other medical advances can quite easily lead to cures and reductions in health service demands. The United States continues to prioritize health care for children in such a way that creates some insulation from the ACA, allowing for a fee-for-service model. Reductions in demand and therefore overall costs of pediatric health provision reinforce this position.

**Some Areas of Strategic Relevance**

- Potential for major reduction or elimination of current area of pediatric service
- Overutilization incented through a fee-for-service model
- Increasing subspecialties with the potential for a progressively healthier pediatric population
- Impact of self-directed care on CHP's business model

**The story of a 10-year-old and her family in 2026 …**

At the time of her birth, 10-year-old Elizabeth Jones received the RSV vaccine as part of a clinical trial. Once the five-year research program concluded, results showed significant evidence that the vaccine was capable of almost completely eliminating complications of asthma and respiratory ailments. As a result, Elizabeth does not carry a diagnosis of asthma or show any adverse respiratory symptoms and is able to enjoy a physically healthy childhood.

Elizabeth’s family is aware that, in addition to the RSV vaccine, other new drug therapies and medical advances have led to a dramatic reduction in illness. They receive regular screening examinations and have all been genetically profiled. Every member of the family is on daily preventive medications, based on his or her individual risk profile. Because they are insured under a generous employer-provided group health plan, they are responsible for only a small co-pay for the exams and medications.
The Jones family benefits from low federal, state, and local taxes, and they have reasonable discretionary income, very little of which goes to cover health care expenses. Both Mr. and Mrs. Jones have full-time employment with lavish benefits. One of Elizabeth's older brothers will soon attend a technical school to prepare him for one of the many high-tech support jobs that are continually available. Their neighbor, Mr. Smith, has recently changed careers and is a sales representative for a local academic spin-off, Vaxeen. He spent 20 years as a respiratory therapist, but like a lot of his friends at the hospital, was a victim of downsizing due to decreasing demand for acute and critical health care services.

The Joneses' Internet-based entertainment system is barraged by ads for preventive medical services, including 3D MRI total virtual endoscopy, High-Frequency Ultrasound obliteration of the appendiceal lumen (which has virtually eliminated appendicitis), and stem cell banking. These services are available in traditional health care settings, but the Joneses plan to have the screenings done at their local Walmart. They have several friends whose children have required minor surgery, including hernia repairs and correction of congenital anomalies, and most have elected to have these done at Tenet-Allegheny Health Network Pediatric Mall locations. The Joneses know of only one family with a very sick child, who spend a lot of time at the local children's hospital. The Joneses don't really know what is wrong, but they know that the child needs continual attention and is attached to some type of breathing apparatus.

One day at the gym, Elizabeth's mother overhears a conversation between two women whose children are both enrolled in a school specializing in severe autism spectrum disorder. Two of the Jones kids have been diagnosed with mild Asperger's and fit in well in the public schools where nearly a third of students are now classified as having some form of autism. The high prevalence of autism spectrum disorders is thought to be due partly to better screening, but some experts suggest the environmental impact of fracking is the cause (though this is very controversial). Elizabeth's mother has seen these women before, because all of their children participate in a large, well-funded genomic- and proteinomic-based longitudinal autism outcomes study at the University of Pittsburgh. They, like many, are hopeful for a cure.
The Plan
The Question

How can Children’s (UPMC’s pediatric service line) most successfully grow and evolve its services and broaden its impact over the next 10 years in a dynamically changing, fiscally challenging, and increasingly competitive health care environment?

The Answer

Be a highly accessible and reliable, cost-effective system of pediatric health care that has a profound global impact in the areas of science, quality of care, and population health.

Over the course of the next 10 years, we must:

- Make our region’s children, adolescents, and young adults the healthiest in the world
- Greatly expand our national and international presence and influence on the care of children with complex diseases
- Be the smartest children’s hospital — unite technology and evidence-based knowledge with the brightest minds in the field to deliver the best possible care and develop new, scalable solutions to the world’s most challenging health problems
# 10-Year Strategic Goals

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<th>GOALS</th>
<th>KEY INDICATORS OF SUCCESS</th>
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| 1. Invert the pyramid – engage and enable frontline staff to perform meaningful work and create greater value for our customers | • Increase annual employee retention to > 90% with 90% of the workforce having more than 1 year of service  
  • Improve MyVoice survey overall employee engagement score from 70% to 90%  
  • Maintain Magnet certification status                                                                                                                                                                           |
| 2. Leverage philanthropy to drive innovation in medical education, health care delivery, and scientific discovery | • Raise $50M per year through philanthropy  
  • Double the Foundation Fund Balance to $500M  
  • Discover three game-changing, scientific, or IT-related breakthroughs with global impact on the health of children and young adults  
  • Increase extramural research/IT funding from $50M–$60M per year to $90M–$100M per year                                                                                                                                 |
| 3. Be the consumer-centric, high-value health care solution for the younger generation | • Reduce significant patient harm events from 0.8/1000 patient days to 0.4/1000 patient days  
  • Be in the lowest quartile of the CHA hospital cost index report  
  • Have 85% of the people completing consumer satisfaction surveys give us the highest score possible for questions related to overall quality of service and/or patient experience (i.e. recommend to a friend or family member)  
  • Simultaneous achievement of Leapfrog, HIMSS Level 7 (inpatient & outpatient), and U.S. News Top 5 Ranking  
  • Increase UPMC’s inpatient market share in Western PA across all services for ages 0–25 from 46% to 66%                                                                                                                                 |
| 4. Reinvent primary care pediatric medicine with a focus on population health and chronic disease | • Increase our covered lives from 250,000 to 500,000  
  • Reduce the number of CHP annual emergency room visits for patients with chronic disease from 8,000 to 4,000 and of those, have 2,000 or fewer turn into obs/admissions                                                                                                                                 |
| 5. Penetrate new domestic and international markets | • Establish on-the-ground Children’s service locations on three additional continents  
  • Increase the percentage of total net revenue generated from outside Western PA from 12% to 25%.                                                                                                                                                                                                 |
| 6. Be the indisputable world leader in pediatric transplantation and the treatment of rare pediatric onset diseases | • Perform the most pediatric solid organ and bone marrow transplants in the world  
  • Achieve the best clinical and functional outcomes of all pediatric transplant centers                                                                                                                                                                                                 |

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Strategic Plan 2016-2026

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