HARRISHEALTH SYSTEM

2021-2025 STRATEGIC PLAN
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Letter from the Chair of the Harris Health System Board of Trustees

On behalf of the Harris Health Board of Trustees, I am pleased to present our 2021-2025 strategic plan.

In July of 2020 we charged Harris Health leadership and our external consultant, Health Management, to gather, process and incorporate input from our county officials, employees, medical staff, community partners and patients in an effort to develop a new blueprint that allows us to fulfill our mission.

Issues that must be immediately addressed are as follows:

- Two new acute care facilities are needed to replace the aged infrastructure at Lyndon B. Johnson and Ben Taub hospitals;
- Harris Health must become a high-reliability organization with zero “never events”;
- Inpatient capacity limitations at Ben Taub compromise our Level I trauma designation;
- Harris County must provide a common EMR platform to allow communication between all entities caring for the indigent and underinsured;
- Harris Health should leverage its unique position to coordinate community resources that specifically address social determinants of health (SDOH);
- Outsourced medical services must immediately undergo increased quality oversight;
- Our workforce must feel valued for the care they provide to our unique population;
- Harris Health must align and utilize our own Health Maintenance Organization, Community Health Choice, to optimize care for those most in need; and
- Philanthropy is critical to the organization’s future success; therefore, the Foundation must meet or exceed industry benchmarks in order to support our mission.

The Board of Trustees delegates the authority to our CEO and his administrative team to address these issues and others that follow in this 2021-2025 strategic plan. Simultaneously, Harris Health will collaborate with our medical school partners to work as one medical system and improve the quality of care we provide to our patients.

Despite all of our challenges, the future of Harris Health is extremely bright. Together, building on our strong foundation, we will fulfill our mission of improving the health of those most in need in Harris County.

Kimberly E. Monday, MD, Chair
Harris Health System Board of Trustees
Letter from the Harris Health System
President and CEO

Without a destination, any direction would do!

As we reflect on the conclusion of The Bridge to 2020, I am excited to begin our journey beyond 2020. Over the past several months and with your help, we have developed what I believe is a very robust strategic plan that will set our direction for the future.

This plan will build on our strengths while also challenging us to think differently about what is possible when we unite as one system of care. Our uncompromising commitment to high-quality, safe and efficient care will guide us as our North Star. A renewed focus on population health management will propel us into the sphere of health promotion and disease prevention instead of the ongoing disease management that has been the foundation of the healthcare delivery system in this country for more than a century. Our commitment to developing and using real-time actionable information to drive our decisions will help us improve our processes so that we can do more of the activities that add value and fewer of the activities that do not. Our emphasis on our workforce as our greatest asset, and our patients as the reason why Harris Health System exists, will pave the way for our transformation into an inclusive and diverse workforce that is built on respect, recognition and trust and is reflective of our community. Finally, and very importantly, this strategic plan will be the start of the serious consideration of and planning for the future of our infrastructure, including our hospitals, which are fast approaching their end of useful life.

I am excited to begin this transformative journey with you as we strive to fulfill our mission to improve the health of the people most in need in Harris County. Please join me on this journey. I cannot tell you that it is going to be easy, but I can promise you that it will be worth it.

God bless,

Esmaeil Porsa, MD, President and CEO
Volunteer Faculty, Professor, McGovern Medical School
Adjunct Associate Professor of Medicine, Baylor College of Medicine
Vice Chair, Texas Commission on Jail Standards
EXECUTIVE SUMMARY

Harris Health System is a hospital district established by the State of Texas in 1965 to provide healthcare to the indigent residents of Harris County.

It is primarily funded through a combination of patient revenue and Medicaid supplemental programs (52 percent combined) and ad valorem taxes (45 percent). It serves a diverse population that is 56 percent uninsured, 57 percent Hispanic/Latino, 25 percent African American, 25 percent undocumented persons and 45 percent Spanish speaking. Further, although Harris Health has only 6.6 percent of the inpatient beds in Harris County, in Fiscal Year 2020 it provided 16.3 percent and 21.4 percent of the area's Medicaid and uninsured hospital admissions, respectively.
Harris Health is a safety net healthcare system committed to ensuring the patient care it provides is equitable and equal in value to the care provided by non-safety net providers in the community. Harris Health operates two acute care hospitals (Ben Taub Hospital and Lyndon B. Johnson Hospital) and ambulatory care clinics across Harris County. Harris Health’s Magnet®-designated hospitals and NCQA-recognized ambulatory care clinics have garnered multiple awards and distinctions for the quality of care. Baylor College of Medicine and McGovern Medical School at UTHealth. Recently, Harris Health has restructured its relationship with both medical schools in support of its continued efforts to operate more cohesively as one healthcare system, with a goal of reducing variation in the way care is provided across the system.

Ben Taub, a Level I trauma center, and LBJ, a Level III trauma center, are two of the busiest emergency centers in the area and provided approximately 170,000 emergency visits in Fiscal Year 2020. In fact, LBJ is the busiest Level III trauma center in Texas. Moreover, Ben Taub is one of only two adult Level I trauma centers in Harris County. It continues to play a vital role in ensuring that more than 5 million residents of Harris County have access to the highest level of trauma services when needed.

As the next five years unfold, Harris Health will be compelled to address the following issues in order to fulfill its mission and statutory obligation:

- Harris Health’s aging and deteriorating hospital infrastructure must be replaced, and additional inpatient beds are needed to reduce the amount of time both hospitals are on diversion and patients must be sent to other facilities for care. Further, Harris Health must develop a comprehensive facilities plan that identifies the most effective location(s) for its hospitals and consider the services offered at each location. Specifically, the LBJ campus currently lacks cardiac catheterization and neurosurgery services to better support the northern part of Harris County.

- In the immediate and short term, Harris Health must determine how best to address the challenges of primary and specialty care access for the Medicaid and underinsured populations. Harris Health currently provides 25 percent of the primary care needed for the indigent in Harris County while 27 percent of the primary care need for this same population is currently unmet; this percentage will continue to grow as the population grows if no intervention occurs. Harris Health should optimize its primary care presence by increasing access in underserved areas, diverting resources from more saturated areas where necessary. Similarly, Harris Health currently only provides 40 percent of the specialty need for the indigent in Harris County and there are very few other providers of specialty services for this population. Harris Health must determine what portion of the primary care and specialty services gap it will fill year over year, and by what method. Some portion of additional primary care might be provided in partnership with federally qualified health centers (FQHC) or non-FQHC primary care providers. However, Harris Health is uniquely positioned to expand specialty care access in the community given its relationships with its medical school partners.
• Harris Health must continue its focus on addressing the underlying causes of poor health, including the **social determinants of health**, to improve the health of the indigent in Harris County and reduce health disparities. Harris Health is committed to partnering with other community organizations to improve non-medical factors that contribute to health disparities. The impact of these long-term initiatives will manifest over decades in improved health outcomes for Harris County residents.

• Harris Health has been asked by the Commissioners Court to explore the **possibility of assuming responsibility for the Harris County Jail health services**. A study done in 2018 is currently being updated to inform the decision for this transition to occur. Should Harris Health move forward, the care delivered to those in the custody of the Harris County Sheriff's Office would be consistent with the population health initiatives outlined by Harris Health in this strategic plan. However, if responsibility for jail health is assumed by Harris Health, it is imperative that Harris Health be given the required resources to avoid having to reduce patient services elsewhere in the system.

There are five strategic pillars that will serve as the foundation for this strategic plan and Harris Health's path forward:

• **Quality and patient safety**: Harris Health will become a high-reliability organization (HRO) with quality and patient safety as a core value where zero patient harm is not only a possibility but an expectation.

• **People**: Harris Health will enhance the patient, employee and medical staff experience and develop a culture of respect, recognition and trust by actively listening to feedback and developing strategies to address high-impact areas of opportunity.

• **One Harris Health System**: Harris Health will act as one system in its approach to the management of facilities, information technology (IT) and telehealth, information security, and health informatics to increase value, ensure safety and meet the current and future needs of the patients we serve.

• **Population health management**: Harris Health will measurably improve patient health outcomes by optimizing a cross-continuum approach to health that is anchored in high-impact preventive, virtual and community-based services, deployed in coordination with clinical and social services partners, and underwritten by actionable population health analytics and technology.

• **Infrastructure optimization**: Harris Health will invest in and optimize infrastructure related to facilities, information technology (IT) and telehealth, information security, and health informatics to increase value, ensure safety and meet the current and future needs of the patients we serve.

be challenged to identify additional revenue streams and explore ways to expand its relationship with Community Health Choice and the Harris County Hospital District Foundation. It will need to focus on minimizing costs through reduction of waste. Finally, it will need to educate the entire community about how and why Harris Health is vitally important to all residents of Harris County in the provision of trauma services and the training of the next generation of healthcare professionals.
Harris Health engaged the Board of Trustees, leadership, medical staff and employees to understand their experiences working across the system. In addition to obtaining vital input, Harris Health’s goal was to use this process to strengthen the culture of transparency and work toward better lines of communication. Harris Health organized internal stakeholder groups and conducted one-on-one interviews, group interviews and meetings with clinical chiefs of service and inpatient and outpatient leadership subgroups.

Harris Health also engaged various community stakeholders from throughout the Harris County region to understand how Harris Health could best meet community needs moving forward by building on successes and acting on opportunities for improvement. Participants in this stakeholder interviewing process included:

- Harris County Judge and Harris County Commissioners
- Interviews with 46 internal and external stakeholders
- Interviews with 45 chiefs of service
- Three outpatient care subgroup meetings
- Four inpatient care subgroup meetings
- Representatives from community-based organizations
- Harris Health Patient and Family Advisory Council representatives
- Other healthcare organizations and systems, including academic partners

Harris Health wanted to hear broadly from each person in the organization ready to share his/her views. Most importantly, it wanted to understand its workforce’s opinions around any gaps between values held and values demonstrated in the culture. Subsequently, an online survey was sent to more than 11,000 Harris Health employees and providers. The online survey received an overwhelming 28 percent response rate, meaning that more than 3,100 individuals completed the survey.
Together, these participants provided a rich picture of how Harris Health is perceived and experienced by community members. Participants in one-on-one interviews and facilitated focus groups shared feedback about their experiences with Harris Health and their ideas about the system's strengths, weaknesses, opportunities, and threats (SWOT) to inform a structured analysis, further described in the appendix titled, “Process and Findings of Stakeholder Input Analysis.”

is available in full in the appendix. It is based on the individualized SWOT results from the stakeholder groups and review of survey data.

<table>
<thead>
<tr>
<th>STRENGTHS</th>
<th>WEAKNESSES</th>
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<tr>
<td>• Mission-driven workforce with pride in work</td>
<td>• A.7hΔ - 4Δ4=4Y 4 - 4Δ 4Δ resulting in long waits for appointments and at the clinics</td>
</tr>
<tr>
<td>• Robust technology and data foundation</td>
<td>• A.7hΔ - 4(Δ- 4= Δ- .74Δ diversion times</td>
</tr>
<tr>
<td>• Perceived as critical asset to serve low-income residents</td>
<td>• Administrative employee turnover</td>
</tr>
<tr>
<td>• Trauma and critical care perceived as high quality and essential</td>
<td>• Perceptions of inequitable distribution of locations, not close enough to where people live</td>
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<table>
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<tr>
<th>OPPORTUNITIES</th>
<th>THREATS</th>
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<tr>
<td>• Develop alternatives to emergency room care</td>
<td>• Aging facilities and insufficient inpatient beds</td>
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<tr>
<td>• Enhance HCHD Foundation’s impact on Harris Health</td>
<td>• Future of healthcare reform and other political aspects of healthcare</td>
</tr>
<tr>
<td>• Leverage community partnerships to augment population health efforts</td>
<td>• COVIDs impact on health inequities and economics</td>
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<tr>
<td>• Improve external communication and messaging</td>
<td>• Limited patient access to technology resources</td>
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Participants were encouraged to share honest feedback, including some that was not positive, offering crucial insights to inform constructive change and improvement strategies. Participants were generous with their time and forthright with their input, providing insight on where the most value can be offered by Harris Health, including how Harris Health can support efforts in the broader community to improve Harris County residents’ health. This information was used to inform the strategic plan.

The complete list of those interviewed can be found in the Acknowledgments section of this document.
Mission
Harris Health is a community-focused academic healthcare system dedicated to improving the health of those most in need in Harris County through quality care delivery, coordination of care and education.

Vision
Harris Health will become the premier public academic healthcare system in the nation.

Values
Harris Health values QUALITY:

0  Quality and Patient Safety
U  United as One Harris Health System
A  Accountable and Just Culture
L  Leadership and Integrity
I  Innovation, Education, Research
T  Trust, Recognition, Respect
Y  You: Patients, Employees, Medical Staff
Harris Health operates two full-service teaching hospitals, 18 community health centers and many other specialized service locations. Through their tax dollars, Harris County residents support Harris Health’s essential mission to offer reliable, quality care to Harris County residents who count on Harris Health to meet their healthcare needs.

Harris Health’s focus on delivering high-quality care is evidenced by numerous distinctions including:

- American Nursing Credentialing Center Magnet® hospital designation for Lyndon B. Johnson Hospital and Ben Taub Hospital (achieved by only 8% of hospitals in the United States)
- National Committee for Quality Assurance designation for Harris Health’s patient-centered medical homes (the first accredited healthcare institution in Harris County to be designated)
- Comprehensive Stroke Center (DNV) for Ben Taub Hospital
- American Heart Association/American Stroke Association’s Get With The Guidelines® Stroke Gold Plus-Target: Stroke Honor Roll Elite Plus Award for Ben Taub Hospital
- Designated Chest Pain Center for Ben Taub Hospital
- Mission: Lifeline® Gold Plus Receiving Center for STEMI (heart attack) care for Ben Taub Hospital
- Designation as a regional center for neonatal intensive care for Lyndon B. Johnson Hospital
- American College of Surgeons Commission on Cancer accreditation with commendation for Harris Health’s Cancer Care Program

History and Governance

Public health systems are essential to the overall health of a community. Harris Health System is a hospital district established by the State of Texas within Harris County, Texas, to provide healthcare to low-income residents. The Texas Indigent Care Act, enacted in 1985, mandated that all counties provide healthcare to resident, low-income persons through one of three mechanisms: hospital districts, public hospitals, or county-based indigent healthcare programs. Harris Health meets that responsibility for Harris County, the third-most populous county in the United States.
The governing body of Harris Health is the Board of Trustees, whose duties are prescribed by State and Federal law and the Harris Health System Board of Trustees Bylaws. The nine individuals who have been appointed by the Harris County Commissioners Court serve on the Harris Health System Board of Trustees without compensation.

**The Harris Health Team**

<table>
<thead>
<tr>
<th>HARRIS HEALTH BY THE NUMBERS: Locations</th>
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<tr>
<td>Ben Taub Hospital with a Level I trauma center</td>
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<tr>
<td>Lyndon B. J ohnson (LBJ) Hospital with a Level III trauma center</td>
</tr>
<tr>
<td>18 community health centers</td>
</tr>
<tr>
<td>5 same-day clinics</td>
</tr>
<tr>
<td>5 school-based clinics</td>
</tr>
<tr>
<td>3 multi-specialty clinic locations</td>
</tr>
<tr>
<td>1 dental center</td>
</tr>
<tr>
<td>1 dialysis center</td>
</tr>
<tr>
<td>1 ambulatory surgery center</td>
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<tr>
<td>Mobile health units</td>
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Harris Health employees and other workers, together with medical staff from Baylor College of Medicine, McGovern Medical School at UTHealth and The University of Texas MD Anderson Cancer Center, join to form teams that provide services and support the delivery of high-quality healthcare.

Seventy percent of Harris Health employees live in Harris County, many living in and hired from the communities where there is greater need for health equity. The composition of staff is representative of the diversity of the county: 47 percent are African American, 27 percent Hispanic, 7 percent Asian, and 12 percent White.

**Partnerships**

Harris Health recognizes the importance of collaborating with other organizations to meet the needs of Harris County’s most vulnerable populations.

**Academic Partners**

Harris Health serves as a critical medical training site for Baylor College of Medicine and McGovern Medical School at UTHealth. It also serves as a training site for the University of Texas Health Science Center School of Dentistry. Further, it serves as an important clinical rotation site for a number of nursing schools and allied health programs. Functioning as a key training organization, Harris Health supports the community by assuring a constant pipeline of healthcare professionals. This is especially important for the county to meet the anticipated increase in need as the population is projected to increase in Harris County over the next 20 years.

Through its collaboration with Baylor College of Medicine, McGovern Medical School at UTHealth and The University of Texas MD Anderson Cancer Center, Harris Health also ensures that cancer patients can access an array of cutting-edge clinical trials.

**Community Health Choice**

A community health organization, to participate in the Texas Medicaid managed care program. Community’s bylaws and governance ensure ongoing partnership and alignment with Harris Health. Initially launched as a Medicaid managed care program, Community has expanded into the individual Marketplace.
established by the Affordable Care Act (ACA). Harris Health now subsidizes premiums for some eligible low-income individuals enrolled in Marketplace plans.

This past year, Community conducted a parallel strategic planning effort that aligns and supports Harris Health’s strategic plan. Community and Harris Health continue to have an opportunity to impact the uninsured, improve quality outcomes and reduce healthcare cost in Harris County through their partnership. Key initiatives include leveraging resources and federal programs to expand insurance coverage for the uninsured population of Harris County and increasing the number of participating providers in the Harris Indigent Network to support timely specialty and inpatient care for uninsured Harris Health patients. Collectively, the partnership focuses on mitigating health disparities in social determinants that affect the communities both organizations serve. With the organizations’ commitment to enhanced collaboration, there are opportunities to maximize operations through increased shared services for patients/members as well as to build programs that create healthcare-related employment and educational opportunities.

Community Partners

Harris Health has partnerships with many organizations that share a common goal to ensure Harris County residents can access quality, affordable healthcare. Harris Health also collaborates with a number of community-based organizations to address the social determinants of health that contribute to health disparities. Many of these partners provided valuable input for the strategic plan.

Harris Health Patients

Harris Health treats an ethnically diverse population representative of the Harris County community. In Fiscal Year 2020 (March 1, 2019—February 29, 2020), 287,780 unduplicated patients received care at Harris Health. Of these patients, 56% were uninsured, 57% were female, 57% were Hispanic/Latino and 25% were undocumented persons. Further, 51% of these patients spoke English, 45% spoke Spanish and 15% spoke Vietnamese.

### BY THE NUMBERS (FY 2020)

- 287,780 unique patients
- 44,000 inpatient and observation cases
- 23,000 surgeries
- 170,000 emergency room visits
- 1 million clinic visits

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Harris Health Patients by Consolidated Financial Class (FY 2020)

<table>
<thead>
<tr>
<th>Financial Class</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Uninsured</td>
<td>56%</td>
</tr>
<tr>
<td>Medicaid</td>
<td>16%</td>
</tr>
<tr>
<td>Insured</td>
<td>20%</td>
</tr>
<tr>
<td>Medicare</td>
<td>8%</td>
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Harris Health Patients by Race/Ethnicity (FY 2020)

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>White/Caucasian</td>
<td>57%</td>
</tr>
<tr>
<td>Black/African American</td>
<td>25%</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>10%</td>
</tr>
<tr>
<td>Middle Eastern</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>2%</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>3%</td>
</tr>
<tr>
<td>American Indian</td>
<td>3%</td>
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Source: Harris Health Decision Support Services
Texas has both the highest number and the highest percentage of uninsured residents in the nation, with approximately 4.8 million Texans (18.4 percent) without either private or public insurance. This rate is about twice the national average of 9.2 percent. The greater Houston region had the highest number of uninsured residents in the country in 2019, with nearly one in five people (19.7 percent) in the area uninsured. Individuals without insurance often pay for care out-of-pocket but may be unable to pay the full cost of care.

As a public safety net system, Harris Health's revenue sources are consistent with how large government-owned and -operated safety-net health systems are funded. Sources include patient revenues, Medicaid supplemental payment programs, taxpayer funds and other small sources such as philanthropic donations. The patient revenue is primarily derived from government-supported or -administered healthcare programs (Medicaid, Marketplace plans for individuals and Medicare).

**Fiscal Year 2020 Revenue by Funding Stream**

In Fiscal Year 2020, Harris Health generated revenue of nearly $1.7 billion. Patient billings, primarily from Medicaid and Medicaid supplemental payments, were approximately 52 percent of this revenue. Because Harris Health provides care to a disproportionately large share of Harris County residents who are uninsured or have Medicaid coverage, it qualifies for Medicaid supplemental payments to help cover the cost of uncompensated care, providing access to vital services and supporting graduate medical education. Approximately 45 percent of total revenue came from an ad valorem property tax. The remaining three percent includes investment income, tobacco settlement funds and revenue from activities other than patient care.
Dependence on Governmental Revenue Streams

Because Harris Health’s revenue streams are so closely tied to government funding sources—Medicaid patient revenue, Medicaid supplemental payments, taxpayer subsidies—the level of its continued funding is always a source of public discussion and potential risk. As the pandemic continues to affect the Texas and national economy, the Affordable Care Act’s future remains uncertain. With the Texas DSRIP waiver’s expected end, Harris Health’s funding streams will continue to face public scrutiny and may be at risk for reduction. However, what remains certain is the need for Harris Health to continue ensuring low-income individuals receive high-quality healthcare.

Philanthropy

While the primary driver of revenue, as outlined above, is related to patient revenue, Harris Health needs to consider taking better advantage of philanthropic opportunities for funding special projects. Harris Health currently has an affiliated foundation whose performance should be evaluated periodically using benchmarks to determine the effectiveness of fundraising efforts in support of the organization. Initial evaluation of the Foundation using national benchmarks indicates underperformance, and the root causes of this should be studied in earnest and remediated. This oversight should be undertaken by the Harris Health Board of Trustees.

MEDICAID SUPPLEMENTAL PAYMENTS

- Uncompensated Care (UC)
- Disproportionate Share Hospital program (DSH)
- Delivery System Reform Improvement Program (DSRIP)
- Network Access Improvement Program (NAIP)
- Uniform Hospital Rate Increase Program (UHRIP)
- Graduate Medical Education (GME)
While developing a strategic plan, Harris Health must be aware of the impact of a changing healthcare landscape. Strategies for future success need to be informed by current realities and likely developments both locally and nationally.

The U.S. has been grappling with the growing percentage of gross domestic product (GDP) consumed by health expenditures for several decades. In 2019, the most recent year reported by the Center for Medicaid Services, National Health Expenditure Data, 17.7 percent of the U.S. GDP was spent on health. This was a 4.6 percent increase from 2018. Efforts to bend the growth curve have included Medicare programs designed to change payment models and incentivize improved outcomes. Many state Medicaid programs and commercial payers have followed a similar path. Health systems have participated in pilot programs of bundled payment models, safety/quality reporting and attempts to improve the patient experience.

More recently, healthcare systems with population responsibilities and payments are beginning to collaborate with community organizations in recognition that preventing disease is the only way to decrease the high costs of treating advanced chronic diseases. As payments decrease for acute care and margins become tighter for those not yet succeeding with new payment models, many health systems are looking at mergers and acquisitions to attain scale. These consolidations are intended to cover costs and obtain the capital necessary to stay current with technological advancements required to be competitive. With long-term interest rates at historical lows, health systems with borrowing capabilities, including other Texas public health systems, have used this strategy to fund necessary capital investments. The healthcare sector faces constant economic challenges and regulatory complexity as well as great opportunities for innovation and transformation of care delivery.

Economic Challenges and the Pandemic

During 2020, in addition to the normal pressures on health systems, the pandemic caused by COVID-19 has eaten even further into revenue. The CARES Act funding provided some relief; however, given the slow rollout of the COVID-19 vaccine, hospital systems can anticipate many more months of dealing with the pandemic’s impact.
The pandemic has also caused unprecedented economic pressure on the federal government, the State of Texas, its counties and individual municipalities. Potential reductions in government funding sources need to be considered and planned for as the economy bounces back.

**Shifting Regulatory Priorities**

The healthcare industry is complex and highly regulated. The Medicare program, which provides reimbursement for services to older adults, is federally funded. Medicaid programs are partially funded by individual states that are free to design their programs to meet their residents’ needs within certain guidelines, the interpretation of which has changed through administrations and shifting priorities. By electing not to expand Medicaid, Texas continues to have the highest number and per capita rate of uninsured in the United States. Conversely, if Medicaid was expanded in Texas, it is estimated that an additional 223,700 Harris County residents would be eligible and 167,500 would be likely to enroll. This would result in approximately $950 million in new federal funding to cover Medicaid expansion in addition to the $105 million state contribution.

The Patient Protection and Affordable Care Act, passed in 2010, provided relief for health systems in terms of decreasing the number of uninsured individuals in the U.S. Those living between 100 and 400 percent of the federal poverty level have become eligible for a government subsidy to purchase health insurance in the Marketplace. To varying degrees by state, this has led to fewer uninsured and less reliance on local taxpayer funding to support safety-net institutions, which serve a disproportionate share of the under and uninsured. Harris Health has been a leader in encouraging patient enrollment in Marketplace products, subsidizing payments for many Harris County residents who previously were uninsured.

**Opportunities for Innovation and Transformation**

Financial success for health systems is increasingly determined by how effectively prevention is addressed, while still delivering high-quality, complex medical care. Support of mental health and substance use disorder treatment, partnerships with public health and other prevention-oriented partners and a strong primary care network are all necessary to improve the health of the population and control total costs. Fortunately, innovative yet proven prevention approaches are available such as the diabetes prevention program (DPP) and diabetes self-management education and support (DSME) that are now covered by many insurers in recognition of their long-term positive impact. Similar proven interventions exist for smoking cessation, infectious disease control, other chronic disease and healthcare events such as readmissions to the hospital.

The last decade has also seen an explosion of innovation in healthcare beyond prevention. Technology has played a key role in transforming how patients both seek and receive care, leading to a recognition that telehealth can meet many needs. The pharmaceutical industry has developed innovative treatments that prolong life and enhance the quality of life for millions, including the unprecedented, rapid development of effective vaccines and treatments to combat the COVID-19 pandemic. Last, but equally important, payers—both public and private—have invested billions of dollars in helping the healthcare system transform from fee-for-service payment to value-based payment that reflects the quality and outcomes of services provided. Harris Health is well positioned to succeed in adapting to new payment models, given its imperative to control costs while improving quality and patient satisfaction among a largely uninsured population.

Harris Health’s future success and sustainability are dependent on the ability to strategically address the challenges of the changing healthcare landscape in this strategic plan.
Care of the Uninsured and Underinsured

Harris Health plays an outsized role in meeting the needs of Medicaid and uninsured patients in Harris County. Its two hospitals combined have 617 total inpatient beds, which comprise 6.6 percent of the licensed inpatient beds in Harris County. However, in Fiscal Year 2020, Harris Health provided inpatient treatment to:

- Medicaid – 16.3 percent of Harris County’s adult patients who have Medicaid
- Uninsured – 21.4 percent of Harris County’s adult patients who are uninsured

More than 82 percent of Harris Health’s hospitalized patients annually have Medicaid or are uninsured. As a public hospital system, the percentage of Harris Health’s share of Medicaid and uninsured patients is much higher than other Harris County hospitals. Further, according to the Front Line Hospital Alliance, it is higher than any member hospital in the entire country.

The Harris County Commissioner’s Court recently proposed that Harris Health assume responsibility for providing healthcare to those in custody at the Harris County Jail. Caring for this population would be consistent with the Harris Health mission to provide care for the uninsured and underserved community members. A study completed in December of 2018 that outlines the considerations for the transition of this care to Harris Health is being updated and will be used to help inform the decision. Should the Commissioner’s Court move forward and task Harris Health with providing these services, care is available to these inmates without reducing patient services elsewhere in the system.

Major Service Lines at Harris Health System

Harris Health served more inpatients than any other individual hospital in Harris County in 2020 in eight of its top 12 service lines for patients with Medicaid and in nine of its top 12 service lines for uninsured patients. In three service lines—general surgery, gynecology and HIV—Harris Health served more patients with any form of insurance than any other hospital in Harris County.
Harris Health's Market Position in Harris County by Service Line (inpatient discharges): FY2020, all ages

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<tr>
<th>Service Line</th>
<th>Harris Health Percent of Discharges</th>
<th>Other Key Market Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Medicine</td>
<td>Overall: 5.8% Medicaid: 13.6% Uninsured: 17.5%</td>
<td>Houston Methodist</td>
</tr>
<tr>
<td>Obstetrics</td>
<td>Overall: 7.7% Medicaid: 12.6% Uninsured: 5.4%</td>
<td>The Woman's Hospital, Texas Children’s, HCA Northwest, UT Medical Branch, St. Joseph, HCA West, MH Southwest</td>
</tr>
<tr>
<td>General Surgery</td>
<td>Overall: 7.9% Medicaid: 13.0% Uninsured: 26.3%</td>
<td>Houston Methodist</td>
</tr>
<tr>
<td>Cardiology</td>
<td>Overall: 5.2% Medicaid: 20.2% Uninsured: 15.7%</td>
<td>Houston Methodist, Willowbrook, MH Northwest</td>
</tr>
<tr>
<td>Orthopedics</td>
<td>Overall: 3.3% Medicaid: 39.2% Uninsured: 37.0%</td>
<td>Texas Orthopedic, Houston Methodist, MH Memorial City, St. Luke’s Willowbrook</td>
</tr>
<tr>
<td>Neurology</td>
<td>Overall: 5.0% Medicaid: 13.4% Uninsured: 17.3%</td>
<td>Houston Methodist, MH Texas Medical Center (Medicaid)</td>
</tr>
<tr>
<td>Oncology</td>
<td>Overall: 16.5% Medicaid: 26.8% Uninsured: 60.0%</td>
<td>MD Anderson, Texas Children’s (Medicaid)</td>
</tr>
<tr>
<td>Gynecology</td>
<td>Overall: 10.6% Medicaid: 16.4% Uninsured: 43.7%</td>
<td></td>
</tr>
<tr>
<td>Trauma</td>
<td>Overall: 10.9% Medicaid: 19.5% Uninsured: 210%</td>
<td>Texas Medical Center (all), Texas Children’s (Medicaid)</td>
</tr>
<tr>
<td>Urology</td>
<td>Overall: 8.4% Medicaid: 23.0% Uninsured: 35.3%</td>
<td>Houston Methodist</td>
</tr>
<tr>
<td>HIV</td>
<td>Overall: 12.7% Medicaid: 35.3% Uninsured: 33.6%</td>
<td></td>
</tr>
</tbody>
</table>

Trauma Services

Trauma services at Ben Taub have a national reputation for excellence, consistently ranking among top trauma centers in the country when analyzing quality of care data as part of the American College of Surgeons Trauma Quality Improvement Program (TQIP). This affords Harris Health the ability to attract top medical school graduates interested in emergency medicine and surgical specialties focused on trauma. It also attracts and helps to retain expert faculty to train students and residents.

As one of only two adult Level I trauma centers in Harris County (which, according to the American College of Surgeons is not enough to serve Harris County’s large and growing population) demand for trauma services is high at Ben Taub. However, Ben Taub is often forced to go on trauma diversion due to a lack of available medical/surgical/telemetry, intermediate or intensive care beds. This issue must be addressed to assure Harris County residents’ access to Level I trauma care.

Teaching

One in seven physicians practicing in Texas trained at Baylor College of Medicine. Additionally, 66 percent of residents who trained at The University of Texas Health Science Center at Houston in 2013 were still practicing in Texas in 2015. Moreover, the American Academy of Medical Colleges reports that in 2013, Texas ranked number four in the country for retention by retaining nearly 60 percent of its residents. The majority of these residents trained at Texas Medical Center (all), Texas Children’s (Medicaid) number of medical staff members at Ben Taub and LBJ who completed their residency programs at Harris Health.
PROJ ECTING FUTURE NEEDS

Harris Health plays a crucial role in providing care to vulnerable populations in Harris County.

Harris County has a total population nearing five million with one of every four people living in a family with an income below 150 percent of the federal poverty level (2018 US Census data). Of these individuals living below 150 percent of the federal poverty level, 33.6 percent are uninsured and 61 percent are enrolled in Medicaid. Most of these Medicaid enrollees are children under the age of 18, a population largely served by other providers.

Harris County Medicaid and Uninsured Population (2018 U.S. Census Data projected to 2020 using Texas Demographic Center population estimates)

<table>
<thead>
<tr>
<th>Population</th>
<th>Number of People in Harris County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid* (under age 65)</td>
<td>834,636</td>
</tr>
<tr>
<td>Uninsured</td>
<td>943,466</td>
</tr>
<tr>
<td>Under 150% of Federal Poverty Limit (FPL)</td>
<td>1,269,835</td>
</tr>
<tr>
<td>Uninsured and under 150% FPL</td>
<td>462,418</td>
</tr>
</tbody>
</table>

*Enrollment in Medicaid in January 2020 was significantly below this number but is rising and may be higher than these 2018 projections in 2021 as a result of changing economic conditions.

Healthcare Needs of the Population

Accessing healthcare is very challenging in Harris County for people with low income, particularly those without health insurance. This reality was expressed in all stakeholder interviews in some form. Public health data reveals some of the consequences of barriers to accessing healthcare, including poor diabetes control, avoidable hospitalizations and higher mortality rates in lower-income census tracts. Uninsured patients coming in for late-stage disease, including cancer, is all too common, and each is a painful reminder of these access challenges.

Determining the amount of healthcare resources needed to adequately address these challenges is complicated and is more fully explained in the appendix titled “Appendix on Population Need and Harris Health’s future.”

Projected Need for Primary Care

An estimated 127 million people in Harris County live below 150 percent of the federal poverty level (150 FPL). Harris Health is estimated to provide primary care that could meet 20% of this population’s primary care needs while FQHCs in total have a calculated capacity to serve an additional 24 percent. An unknown amount of primary care for those under 150 percent FPL occurs in Low/No Cost, including homeless care.

Percentage of Primary Care Provided in Harris County by Institutional Type

- Unmet need
- Harris Health Ambulatory Care
- FQHCs
- Estimate of other primary care for indigent
- Low/No Cost, including homeless care
other care settings such as private practices and hospital clinics, with 20 percent shown as a reasonable estimate. This leaves an estimated 27 percent of the population (approximately 344,000 people) with their primary care needs unmet. This unmet need plus projected population growth results in the 20-year need for 464 additional primary care provider FTEs to fully meet the needs of the population under 150 percent FPL.

For Harris Health to simply maintain the 25 percent current share of primary care coverage for the population, 67 additional FTEs of primary care will need to be added over the next 20 years. At a current approximate cost of $300,000 per primary care FTE (a blended rate for physicians and mid-level organization of over $20 million per year by the twentieth year. If Harris Health elects to cover a greater percentage of the 464 additional primary care provider FTEs needed, this cost will increase accordingly. In conjunction with adding primary care FTEs, Harris Health could explore outsourcing some amount of primary care to FQHCs or other primary care entities.

In addition to needing more primary care providers overall in Harris County, there are specific areas of the county in which significantly more primary care is required to address the needs of the low-income population. The maps below indicate areas in the northern and eastern regions of the county (banded in red) in which new primary care capacity is needed. Areas banded in purple in the south and west regions of Harris County represent areas with existing primary care sites (Harris Health and/or non-Harris Health sites) that could be expanded to meet the need. Finally, there are some Harris Health primary care sites consideration of moving the site of service or redistributing primary care providers from those clinics to other higher-need areas.

**Primary Care Need in Harris County**

The map on the left shows areas with higher unmet primary care need (density of blue) circled with thickness of line showing the amount of need within the circled area. The map on the right shows the same areas with roads and towns visible.
Projected Need for Outpatient Specialty Care

Harris Health's specialty care needs are defined using a smaller population: all uninsured below 150 percent FPL and the inpatient market share for both Medicaid and Medicare below 150 percent FPL. This total is 614,376 people in Harris County.

Harris Health provides about 40 percent of the need for this population with approximately 178 FTEs of ambulatory specialty providers. Unfortunately, there are fewer alternatives for specialty services than for primary care because FQHCs do not generally have specialists on staff and are often looking to private specialists, and a large portion of the needs of the remaining 60 percent of this population go unmet. Moreover, each specialty within Harris Health meets a different amount of the total identified need. For instance, outpatient cancer treatment meets 73 percent of the need for the identified population whereas orthopedics meets 11 percent, reflected in very difficult ambulatory access for orthopedic patients who do not have urgent and/or severe needs.

The need for additional specialists is also evidenced by internal data indicating significant wait lists for clinic visits related to ophthalmology, urology, gynecology, pulmonology, endocrinology, otolaryngology, and other specialties. Further, specialists are needed to help address backlogs for procedures such as colonoscopies. Wait times for an initial visit can be as high as four to six months for many specialties. If Harris Health does not invest in additional ambulatory specialty resources, then in 20 years the need met would fall from 40 percent to 28 percent as the population grows.

<table>
<thead>
<tr>
<th>Specialty FTE Sensitivity Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specialist FTEs Needed in 2040</td>
</tr>
<tr>
<td>-----------------------------------</td>
</tr>
<tr>
<td>If current FTEs maintained</td>
</tr>
<tr>
<td>If current percentage of need met maintained</td>
</tr>
<tr>
<td>If FTEs increased to meet 50% of need</td>
</tr>
<tr>
<td>If FTEs increased to meet 70% of need</td>
</tr>
<tr>
<td>If FTEs increased to meet the needs of the population in full (100%)</td>
</tr>
</tbody>
</table>

Harris Health may also consider continuing to outsource some portion of this specialty need to private sector specialists with capacity to accommodate additional volume. The cost impact of the potential outsourcing for additional specialty services will have to be determined.
Projected Need for Hospital Beds

As is the case with primary care and ambulatory specialty care, Harris Health's 617 licensed beds are insufficient to serve the population. The current gap and future bed needs are analyzed with two different methodologies in the appendix titled “Appendix on Population Need and Capabilities of Facilities to Fulfill Need.” The first method considers the same population definition used for the ambulatory specialty care analysis. The second method considers Harris Health's current market share and the number of patients for whom Harris Health currently needs to request an external transfer because of insufficient beds and/or other resources. Using these methodologies, the current gap between capacity and need is 138 to 144 beds.

Additionally, and importantly, both Ben Taub and LBJ hospitals are over 30 years old and reaching the end of their useful life. Infrastructure issues, particularly on the LBJ campus, frequently contribute to a reduction in available hospital beds, causing the hospitals to go on diversion and be unavailable to care for the community. This issue has become particularly acute during the COVID-19 pandemic. Analysis from architectural and engineering consultants indicates it is more practical and feasible to replace these facilities than to renovate them.

As Harris Health develops a comprehensive facility plan for both campuses, it must consider both its immediate and future bed needs. While the current gap in acute care beds is 138 or 144 beds depending on the methodology used, in both methods, Harris Health will need just over 400 additional beds by 2040. Additionally, Harris Health should consider the services offered on both hospital campuses. Specifically, Harris Health should consider the addition of cardiac catheterization and neurosurgical capabilities on the LBJ campus.

Using an average of the two models to determine the incremental beds needed now, in 2025, in 2030 and in 2040, total acute care bed needs are indicated below in the table below. A new hospital can be expected to cost about $1.5 million per bed or $240 per day per bed at 1.5 percent interest for 20 years. Although the capital cost is undoubtedly high, current interest rates and the life of a new building could make construction less expensive than outsourcing care by paying for beds in other hospitals in the county for the next 20 years and beyond. Support from the Harris County Commissioners and Harris County taxpayers will be of the utmost importance as Harris Health pursues the replacement of Ben Taub and LBJ and the addition of the inpatient beds needed to support hospitalization needs. Additionally, Harris Health will need to explore new revenue streams and enhanced philanthropic efforts to support this need.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Acute Care Bed Needs</th>
<th>Estimated Construction Cost for Replacement Hospitals</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>758</td>
<td>$1.137 billion</td>
</tr>
<tr>
<td>2025</td>
<td>824</td>
<td>$1.23 billion</td>
</tr>
<tr>
<td>2030</td>
<td>891</td>
<td>$1.336 billion</td>
</tr>
<tr>
<td>2040</td>
<td>1029</td>
<td>$1.543 billion</td>
</tr>
</tbody>
</table>

*These costs do not account for the additional providers and staff needed to operate new, larger facilities.
The optimal number and location of Harris Health hospitals are also a major consideration. Although this will be finalized in a comprehensive facility plan to be completed in the first year of this strategic plan, location considerations will include:

- Where current Harris Health patients reside (see map below). The bed days indicate the number of days in which a person stayed overnight in a hospital.
- Academic partners and the need to support robust teaching and training.
- Locations of trauma events and trauma centers to reduce time to treatment.

**Bed Days Per Square Mile in Harris County**

LBH is currently located in an area with a high number of bed days (indicating a high need for inpatient services). However, Ben Taub's location could be reconsidered given that there is a high number of bed days among the Medicaid and uninsured population in the southwest part of Harris County. Moreover, Ben Taub's proximity to Harris County's only other adult Level I trauma center indicates a need to consider a location that would provide greater geographic distribution of the Level I trauma centers and promote more timely access to care in an emergency.

Psychiatric beds are also critical, and analysis shows a significant and growing gap in the number of beds needed. The current gap in the number of psychiatric beds needed to serve the Harris County population under 150% of the FPL (approximately 1.2 million people) is 62, and estimated to grow to almost 200 beds by 2040. Lack of inpatient psychiatric beds in the community results in many patients being held for admission for long periods in Ben Taub's (and to a lesser extent, LBH's) Emergency Center. In partnership with others in the community, Harris Health will need to perform further analysis across the continuum of behavioral healthcare to determine the right balance of investments between more psychiatric beds and other behavioral health services such as substance use disorder.
Social Determinants of Health

Harris Health remains committed to partnering with other community-based organizations to address social determinants of health such as food insecurity, health literacy, vocation training and economic empowerment. These initiatives are long-term and require investment of resources that may not yield results for a number of years. While the significance of these initiatives cannot be overstated, it is also important to note that many will have minimal impact on healthcare utilization and costs in the immediate and short term. Similar to addressing the social determinants of health contributing to the poor health of the community, lack of access will have to be addressed in partnership with other healthcare and non-healthcare community-based organizations.

Improving Access

Addressing access issues related to primary care, specialty care and inpatient care will have the most immediate impact on the community's health. In Fiscal Year 2021, Harris Health is projected to spend almost $50 million on outsourced services:

- 36 percent on post-acute care services such as rehabilitation, long-term acute care, hospice and skilled nursing
- 27 percent on inpatient services (due to an insufficient number of beds at Ben Taub and LBJ)
- 17 percent on ambulatory services such as dialysis, sleep studies and colonoscopies
- 13 percent on inpatient behavioral health services
- 7 percent on other services such as DME and home health

Although outsourcing of services is helpful to address immediate needs, Harris Health must determine the types and volumes of services it should outsource in the future as part of its strategy to meet community need. A more detailed study on the feasibility and economic impact of outsourcing versus
HARRIS HEALTH’S FIVE STRATEGIC PILLARS

Although there are many decisions to be made regarding how Harris Health will address the community’s immediate and future needs, there are five strategic pillars that will serve as the foundation for the future. These five strategic pillars are: quality and patient safety, people, one Harris Health System, population health management and infrastructure optimization. Associated with each of these pillars are the goals and objectives to which Harris Health will hold itself accountable as it continually strives to improve the way it provides care. Further, these goals and objectives will serve as the means by which the organization will measure its success over the next five years in achieving its mission to improve the health of those most in need in Harris County. The tactics listed are designed to assist Harris Health in achieving the stated goals and objectives.
Pillar 1: Quality and Patient Safety

Aim
Harris Health will become a high-reliability organization (HRO) with quality and patient safety as a core value where zero patient harm is not only a possibility but an expectation.

Goals
1. Eliminate never events and high-harm reportable events.
   a. Measurement:
      i. Reduction in the safety event rate (high-harm and never events) per 10,000 adjusted patient days
2. Eliminate preventable hospital-acquired conditions.
   a. Measurement:
      i. Reduction in the rate of hospital-acquired conditions per 1000 discharges (per condition)
3. Create and permeate throughout the organization a just and accountable culture.
   a. Measurement:
      i. Reduction in voluntary employee turnover
Objectives
1. Increase transparency of information and learning to identify and resolve system issues while addressing human error, at risk or reckless behavior.
   a. Measurement:
      i. Increase in the number of safety huddles completed
      ii. Improvement in employee engagement survey score for “we follow a rigorous system of checks and balances that prevent error”
2. Increase staff willingness to report events that impact or could impact patient safety.
   a. Measurement:
      i. Improvement in NDNQI score for “consider root causes of adverse events or errors rather than placing blame” within the interprofessional domain
3. Develop and implement an enterprise risk management (ERM) framework to address safety/accrreditng and regulatory bodies.
   a. Measurement:
      i. Improvement in the percentage of identified safety/quality risks, including those identified by third-party consultants and accrediting and regulatory bodies for which alternative risk techniques are implemented, monitored for sustainability and adjusted as necessary

Tactics
• Implement a systemwide safety campaign focused on transparency, education and culture change.
• Create a crosswalk document for safety/quality consultant recommendations and ensure compliance.
• Identify a set of time sensitive high-risk conditions and develop transfer arrangements for such conditions with both internal and external partners.
• Measure and report timeliness of electronic incident reporting system (eIRS) review and resolution.
• Identify and fully utilize appropriate benchmarking for quality metrics (e.g., Vizient) and take actions to meet/exceed quality and patient safety benchmarks.
Pillar 2: People

Aim
Harris Health will enhance the patient, staff and provider experience by actively listening to feedback and developing strategies to address high-impact areas of opportunity. Moreover, Harris Health will develop a culture of respect, recognition and trust with its patients, staff and providers.

Goals
1. Enhance employee and provider engagement.
   a. Measurements:
      i. Improvement in employee engagement score for “overall rating as a place to work”
      ii. Improvement in employee engagement score for “this organization’s work environment is accepting and supportive of people with diverse backgrounds”
      iii. Increase in leadership team workforce diversity by ethnicity and gender for directors and above
      iv. Improvement in medical staff engagement score for “overall workplace experience”
2. Improve patient satisfaction.
   a. Measurements:
      i. Improvement in patient satisfaction score for “overall rating of hospital” (inpatient)
      ii. Improvement in patient satisfaction score for “recommend facility” (ambulatory)
      iii. Expanded membership for patient family advisory councils (PFAC) and an increase in the number of system and pavilion committees with PFAC representation
Objectives
1. Improve employee retention.
   a. Measurement:
      i. Reduction in the overall rate of turnover for employees with less than two years of tenure
2. Decrease provider burnout.
   a. Measurement:
      i. Improvement in medical staff engagement score for “would recommend workplace”
3. Demonstrate a culture of patient centered care that values dignity and respect for patients we serve.
   a. Measurement:
      i. Increase in the percentage of patient care staff that is bilingual

Tactics
• Implement a nursing strategic plan that increases nursing retention and promotes professional growth.
• Communicate and execute a patient satisfaction action plan.
• Communicate and execute an employee engagement action plan.
• Communicate and execute a physician engagement action plan.
• Enhance existing patient and family advisory councils and create new councils where needed.
• Expand opportunities for staff and leadership development.
• Enhance the Nursing Center of Excellence.
• Enhance the Language of Caring program to include scripting focused on patients, employees and providers.
• Enhance the effectiveness of philanthropic efforts and implement initiatives to increase community awareness and donor giving in support of the mission.
• Ensure that HR policies support development of a workforce that mirrors our population.
Pillar 3: One Harris Health System

**Aim**

Harris Health will act as one system in its approach to management and delivery of healthcare.

**Goals**

1. Maximize efficiency and effectiveness of care.
   a. Measurements:
      i. Improvement in percentage of discharge orders before 11 a.m.
      ii. Improvement in percentage of hospital discharges within two hours of orders
      iii. Improvement in the percentage of operating room first case on-time starts
      iv. Improvement in operating room block utilization
      v. Improvement in emergency center left-without-being-seen rates
      vi. Improvement in timeliness of intra-system transfers

2. Minimize variation and waste.
   a. Measurements:
      i. Increase in validated cost savings from product standardizations
Objectives
1. Implement a service line management approach and create consistent evidenced-based approaches to clinical care.
   a. Measurement:
      i. Increase the number of developed service lines with clinical care pathways
      ii. Reduction in no-show rate in developed service lines to improve timeliness of care
2. Create consistent policies and procedures across the entire organization.
   a. Measurement:
      i. Improvement in the number of delinquent policies/procedures/standing delegated orders/standing medical orders
3. Achieve a 2 percent operating margin.
   a. Measurements:
      i. Overall operating margin
      ii. Increase in medical services revenue

Tactics
• Integrate more fully the Ben Taub, LBJ and Ambulatory Care platforms in terms of clinical care and operational processes.
• Annually, build a comprehensive approach for at least three service lines (to include clinical, operational processes.
• Improve delivery of care in the emergency centers.
• Develop case-level revenue and cost reporting.
Pillar 4: Population Health Management

Aim
Harris Health will measurably improve patient health outcomes by optimizing a cross-continuum approach to health that is anchored in high-impact preventive, virtual and community-based services, deployed in coordination with clinical and social services partners, and underwritten by actionable population health analytics and technology.

Goals
1. Optimize primary care to improve outcomes and control costs/avoidable utilization while enhancing the patient experience.
   a. Measurements:
      i. Decrease in inpatient admissions for avoidable diabetes complications
      ii. Improvement in the percentage of patients due for a diabetic foot exam with a completed exam
      iii. Improvement in the percentage of patients due for a diabetic retinopathy exam with a completed exam
      iv. Improvement in the number of patients due for a HbA1c lab with a completed lab
2. Provide equitable access to care and improve quadruple integration of care (primary care and specialty care, physical health and mental health, acute care and post-acute care, healthcare and social care).
   a. Measurements:
      i. Increase in the number of available inpatient beds (in-house or through contracted services)
      ii. Reduction in time to third next available appointment (primary care) to improve timeliness of care
      iii. Reduction in average wait times and/or wait list volume by ambulatory specialty to improve timeliness of care
3. Promote rigorous, evidence-based approach to care delivery innovation that methodically evaluates the impact of interventions on quality, costs and access.
a. Measurements:
   i. Improvement in diabetes composite risk score for Food Farmacy graduates
   ii. Improvement in patient activation scores for chronic disease management enrollees
   iii. Improvement in number of visits for patients enrolled in a chronic disease model for which a pre-visit chart review is completed

Objectives

1. Expand and optimize virtual care.
   a. Measurements:
      i. Increase in the percentage of active patients participating in virtual care
      ii. Increase in the number of active chronic disease patients participating in available remote monitoring
      iii. Improvement in the time to third next-available virtual care appointment
      iv. Improvement in the telehealth no-show rate

2. Expand and optimize partnerships with healthcare and non-healthcare community partners to improve the health and wellbeing of this community.
   a. Measurements:
      i. Decrease in the rate of food insecurity among Food Farmacy graduates
      ii. Improvement in fruit and vegetable intake among Food Farmacy graduates
      iii. Improvement in nutrition knowledge/disease management self-efficacy score among Food Farmacy graduates
      iv. Improvement in HbA1c level among Food Farmacy graduates

Tactics

- Establish a comprehensive strategy to address social determinants of health in our patient population.
- Identify disease processes with the highest impact on our patient population and create care models that diminish that impact.
- Identify geographic locations/populations with the highest need for Harris Health services and create partnerships and support or create care centers, both in-person and virtual.
- Optimize and expand, where appropriate, telehealth.
- Address multi-visit patients (MVP) issues internally and in partnership with other health systems.
- Enroll an increasing number of Harris Health uninsured patients in ACA.
- Work in collaboration with Community Health Choice to develop a comprehensive referral network.
- Expand IT services (including the use of the Epic EMR) and work with key FQHCs and non-FQHC community-based clinics to create interfaces that support seamless information exchange to improve care coordination and patient outcomes.
- Establish a transition plan and determine resources needed to assume care for those in custody at the Harris County Jail.
- Create and expand community-based telehealth access points.
Pillar 5: Infrastructure Optimization

Aim

Harris Health will invest in and optimize infrastructure related to facilities, information technology (IT) and telehealth, information security and health informatics to increase value, ensure safety and meet the current and future needs of the patients we serve.

Goals

1. Ensure viable, safe and efficient physical infrastructure for serving our patients.
   a. Measurements:
      i. Increase in the number of implemented risk management strategies for high-risk utility failures
      ii. Increase in the number of sites with ENERGY STAR certification
      iii. Reduction in the number of inpatient beds unavailable due to infrastructure issues (through internal and external partnerships)

2. Ensure up-to-date, effective and safe IT and Information Security infrastructure.
   a. Measurements:
      i. Improvement in the number of network intrusions attempts blocked
      ii. Improvement in the number of categories in which Harris Health obtains a maturity level of 3 or higher in the National Institute of Standards and Technology (NIST) Cybersecurity Framework (CSF)
3. Create a five-year capital plan that complements the five-year strategic plan and the five-year strategic financial plan.
   a. Measurements:
      i. Completion of a five-year capital plan by March 1, 2022
      ii. Completion of a five-year financial plan by March 1, 2022

Objectives
1. Complete facility master plan for LBJ and Ben Taub hospitals.
   a. Measurements:
      i. Completion of phase 1 plans by March 2021
      ii. Completion of phase 2 plans by September 2021
2. Complete facility master plan for community clinics.
   a. Measurement:
      i. Completion of master plan by March 2022

Tactics
• Develop a long-term master facilities plan for Harris Health to include inpatient and ambulatory care facilities.
• Develop a detailed facilities plan to determine the hospital replacement facilities necessary to meet the statutory mission of the system as well as the optimal number and location of outpatient access points.
• Engage with community primary care providers to create a network that maximizes the ability to meet the primary care needs of the population served by Harris Health.
• In partnership with MD Anderson, design, build and operate a cancer center on the LBJ campus.
• Develop an IT infrastructure plan that emphasizes agility to allow for quick adoption of changing technology.
• Develop a plan to provide technology to the community (to include FQHCs and non-FQHC community-based clinics).
• Evaluate the Harris County Hospital District Foundation’s effectiveness and explore the ability to utilize philanthropy to augment funding for new infrastructure.
Harris Health System would like to express the deepest appreciation to all who contributed to this strategic plan. Over 3,100 Harris Health staff and providers, along with leaders and community stakeholders provided input to inform the strategic planning process.

This is an independent strategic plan developed by Harris Health System with consultation from Health Management Associates.

About Health Management Associates (HMA): Health Management Associates is an independent technical assistance, resources, decision support and expertise and works across disciplines to support clients in addressing healthcare’s challenges.

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Ainsley Nibert, PhD, Associate Dean, College of Nursing, Texas Woman’s University
David Persse, MD, Health Authority, Houston Health Department, Medical Director, Houston Fire Department EMS
Peter WT Pisters, MD, MHCM, President, University of Texas MD Anderson Cancer Center
Steve Radack, Commissioner, Harris County PCT 3 (Retired)
Beth Robertson, HCHD Foundation Stakeholder
Diane M. Santa Maria, DrPH, MSN, FAAN, Dean, Cizik School of Nursing at UTHealth
Renae Schumann, PhD, RN, CNE, Dean, School of Nursing and Allied Health at Houston Baptist University
Umair Shah, MD, Former Executive Director, Harris County Public Health
Paul Shanklin, President, Aldine ISD School Board
Anwar Mohammad Sirajuddin, MD, MBA, Founding Dean, College of Medicine; Vice President for Medical Affairs; Humana Endowed Dean's Chair in Medicine, University of Houston
Steve Spann, MD, MBA, Founding Dean, College of Medicine; Vice President for Medical Affairs; Humana Endowed Dean's Chair in Medicine, University of Houston
LeChauncy Woodard, MD, MPH, Founding Director, Humana Integrated Health System Sciences Institute, University of Houston
Wayne Young, MBA, LPC, FACHE, CEO, The Harris Center for Mental Health and IDD

Ambulatory Care Subgroup

David Chou, Senior Vice President and Chief Information Officer, Harris Health System
Toni Cotton, Vice President and Chief Nursing Officer, Ambulatory Care Services, Harris Health System
Jamie Hughes, Associate Administrator, Clinical Integration and Transformation, Ambulatory Care Services, Harris Health System
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Jennifer Small, Vice President of Operations, Ambulatory Care Services, Harris Health System
Mohammad Zare, MD, Chief of Staff, Ambulatory Care Services, Harris Health System

Inpatient Subgroup

Derek Curtis, Vice President and Chief Nursing Officer, Lyndon B. Johnson Hospital
Trish Darnauer, Executive Vice President and Administrator, Lyndon B. Johnson Hospital
Nathan Deal, MD, Executive Vice President and Administrator, Ben Taub Hospital
Joslyn Fisher, MD, Chair, Ethics Committee and Interim Chief of Medicine, Ben Taub Hospital
John Foringer, MD, Chief of Medicine, Lyndon B. Johnson Hospital
Joseph Garcia-Prats, MD, Chief of Neonatology, Ben Taub Hospital and Chair, Medical Executive Board
George Gaston, Associate Administrator, Business Operations and Strategic Initiatives, Ben Taub Hospital
Tien Ko, MD, Chief of Staff and Chief of Surgery, Lyndon B. Johnson Hospital
Kenneth Mattox, MD, Chief of Staff, Ben Taub Hospital
Scott Perry, MD, Medical Director, Ambulatory Surgery Center, Harris Health System
Amy Smith, Senior Vice President, Transitions and Post-Acute Care, Harris Health System
Community Stakeholder Subgroup Interviews

Suzane Abedi, Assistant Director, Houston Complete Communities Initiative
Marie Arcos, Executive Vice President, Government and Community Affairs, YMCA of Greater Houston
Francisco Arquelles, Executive Director, Living Hope Wheelchair Association
Jodi Bernstein, Vice President for Interfaith Relations and Community Partnerships, Interfaith Ministries
Pamela Breeze, Baytown Health Advisory Council and Council at Large Representative
Daniel Bustamante, Chair, Casa de Amigos Health Advisory Council and Council at Large Representative
Rev James Caldwell, CEO and Founder, Coalition of Community Organizations
Katy Caldwell, CEO, Legacy Community Health
Najah Callander, Director Community Relations, HISD Community Partnerships
Charlene Flash, MD, MPH, President and CEO, Avenue 360 Health and Wellness
David Haines
Anna Hardway
Lharissa Jacobs, Vice President of Health Strategy, American Heart Association
Daphne Lemelle, Deputy Director, Harris County Community Services Department
Chris McLean, Lyndon B. Johnson Hospital Patient and Family Advisory Council Member
Marcie Mir, LCSW, CEO, El Centro de Corazon
Daniel Montez, CEO, Vecino Health Centers
Lois J Moore, BSN, MED, LHD, FACHE
Jessica Preheim, Vice President of Strategic Planning and Public Affairs, Coalition of the Homeless
Teresa Recio, Chairperson, Gulfgate Health Advisory Council and Council at Large Representative
Mary Ridley, Ben Taub Hospital Patient and Family Advisory Council Member
Fadine Roquemore, Chair, Council at Large
Elloise Scavella
Marlen Trujillo, CEO, Vallbona Health Advisory Council and Council at Large Representative
Regi Young

Chiefs of Service

Ben Taub Hospital
Yvonne I-Fang Chu, MD, Ophthalmology
John R. (Jack) Dawson, MD, Orthopedics
Shweta Dhar, MD, Molecular and Human Genetics
Catherine Eppes, MD, Obstetrics
Joseph Garcia-Prats, MD, Pediatrics
Guilherme Godoy, MD, Urology
Shankar Prakash Gopinath, MD, Neurosurgery
David Hernandez, MD, Otolaryngology
Hemant Roy, MD, Medicine
Sandeep Markan, MD, Interim Chair, Anesthesiology
Julie Nangia, MD, Breast Center
Asim A. Shah, MD, Psychiatry
Lydia Sharp, MD, Neurology
Mohamad Sidani, MD, Family and Community Medicine
Faye Chiou Tan, MD, Physical Medicine and Rehabilitation
Cliff J. Whigham, Jr., MD, Radiology
Marwan Yared, MD, Pathology

Lyndon B. Johnson Hospital
Ibrahim Alava, MD, Otolaryngology
Pamela Berens, MD, Gynecology
Peter Doyle, MD, Anesthesiology
Karen Eldin, MD, Pathology
Luis Fernandez, MD, Psychiatry
John Foringer, MD, Medicine
Issa Hanna, DDS, Oral Surgery
Joseph Hasapes, MD, Radiology
Tien Ko, MD, Chief of Staff and Chief of Surgery
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Hilary Ma, MD, Oncology
Gioconda Mojica, MD, Co-Chief of Service, Ophthalmology
Melina McCarty, MD, Urology
Ronald Rapini, MD, Dermatology
Kunal Sharma, MD, Emergency Medicine
Judy Thomas, MD, Physical Medicine

Medical Directors

Ambulatory Care Services
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Larry Butcher, MD, Acres Home Health Center
Elizabeth Bosquez, MD, Cypress Health Center
Lisa Danek, MD, Northwest Health Center
Mark Funk, MD, Ben Taub Clinics
Thomas Giordano, MD, Thomas Street Health Center
Ann Gotschall, MD, Gulfgate Health Center
Marcus Hanfling, MD, Pediatric and Adolescent Health Center-Pasadena
Lee Lu, MD, Smith Clinic
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Ronald Winter, MD, Settegast Health Center