UT SYSTEM POPULATION HEALTH

Strategic Plan

The University of Texas System
FOURTEEN INSTITUTIONS. UNLIMITED POSSIBILITIES.

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The University of Texas System

For more than 130 years, The University of Texas System has been committed to improving the lives of Texans and people all over the world through education, research and health care.

The University of Texas System is one of the nation's largest systems of higher education, with 14 institutions that educate more than 228,000 students. Each year, UT institutions award more than one-third of all undergraduate degrees in Texas and almost two-thirds of all health professional degrees. With about 20,000 faculty – including Nobel laureates – and more than 80,000 health care professionals, researchers, student advisors, and support staff, the UT System is one of the largest employers in the state.

The UT System ranks third in the nation in patent applications, and because of the high caliber of scientific research conducted at UT institutions, the UT System is ranked No. 1 in Texas and third in the nation in federal research expenditures. In addition, the UT System is home to three of the nation's National Cancer Institute Cancer Centers – UT MD Anderson, UT Southwestern and UT Health San Antonio – which must meet rigorous criteria for world-class programs in cancer research.

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Dear Friends, Colleagues, and Fellow Texans,

The state of Texas is among the nation's leaders in many areas, including population growth and economic output. In the health arena, The University of Texas System institutions are recognized leaders and innovators in health care delivery, public health, biomedical research, and health workforce education. Texas' population is diverse and growing, and is more than just a reflection of the nation's diversity; it's a vision of what the United States may look like in the future.

Texas also faces considerable population health challenges. We lead the nation in the number of individuals who are uninsured. Our coastal region is uniquely vulnerable to natural disasters. Our border with Mexico is the longest in the nation and brings with it bi-national health challenges that few other states in the nation confront. Racial and ethnic health disparities are significant within our rural, suburban, and urban communities.

There are also significant geographic disparities found across and within our communities. New methods for analyzing and mapping data have allowed us to pinpoint significant differences that exist even across adjacent census tracts or zip codes. In many ways, our zip codes can be more predictive of our health outcomes than our genetic codes.

UT System is committed to addressing the health needs of Texans through our research, care delivery, and educational and workforce training. In this Population Health Strategic Plan for Fiscal Years 2019-2024, prepared at the request of the UT System Board of Regents, we outline a strategy focused on our institutions and their unique strengths and opportunities. Our institutions are committed not only to providing exceptional health care to their patients, but to working in partnership with their communities to identify and implement programs that will improve the health of all people and inform practices and standards across the United States.

Our process

This plan was developed by a group of population health leaders from the UT health and medical institutions as part of the newly established UT Collaboration for Population Health Innovation and Improvement (UT CoPHII). A key premise of the planning process was that an overarching UT System plan could not be developed in isolation from the population health plans of our individual campuses. Institutional plans were therefore first developed by internal population health teams, with ongoing input from UT CoPHII colleagues and leadership, and then approved by the institutions' leadership.

Working from the institutional plans, the UT CoPHII leadership team identified cross–institutional themes, challenges, and opportunities, and then synthesized unifying priorities for the UT CoPHII collaborative. Six key objectives were identified and are the focus of this UT System wide strategic plan. These objectives are:

1. Increase UT System collaborations to address population health.
2. Develop strategies to promote data sharing, repository use and analytics.
3. Increase use and reach of telemedicine for delivery of primary and secondary care.
4. Promote cancer prevention and screening.
5. Prioritize mental health and expansion of integrated mental health services.
6. Advance health and health care workforce development.

Undergirding all six objectives is a deep commitment to addressing health disparities and reducing equity and access challenges faced by our communities. Texas faces many health challenges beyond the ones listed above, but the members of UT CoPHII believe that these six objectives will enable our institutions to move forward collectively, are attainable within the time frame of this strategic plan, and will facilitate the ability of our institutions to collaborate on additional initiatives in the future. These six areas will set the stage for UT System institutions to build on their national leadership in population health and to significantly improve health in their respective communities and across the state of Texas.

UT System alone cannot solve all the population health needs of our great state, but we are committed to engagement and partnership across our institutions and within the communities of which we are part. We are dedicated to reducing health disparities throughout the state. And we will work to disseminate broadly and freely the methods and strategies for sustainable change that emerge from our work. Thank you for your interest in this initiative and in improving health for all Texans.

David L. Lakey, MD

Vice Chancellor for Health Affairs
Chief Medical Officer
The University of Texas System
Texas Commissioner of Health (2007-2015)

THE POPULATION HEALTH PLAN FOR THE UNIVERSITY OF TEXAS SYSTEM

The Purpose of this Plan

The purpose of this Population Health Strategic Plan is twofold. The first is to improve health in Texas by decreasing key health disparities in the state. The second is to identify key overarching population health priorities to focus on over the next 3-5 years to expand on UT System's leadership role in state and national population health improvement. To do so, key infrastructural and health issues were selected that can be addressed during this 3-5-year window. UT System fully realizes that to dramatically improve health and decrease disparities in the Texas population, other Texas university systems, agencies and institutions must play key and complementary roles.

This plan is not designed to address all the population health issues in Texas. Rather, by building on the many strengths of UT institutions in this arena, and by addressing key gaps, UT System will position itself to assume leadership in confronting key population health issues and in enhancing the collaboration and learning between sister institutions. The UT System, with its statewide network of campuses, should be a catalyst for such educational partnerships and research collaborations.

The Population Health Strategic Plan represents the work of the UT System Population Health Initiative, the University of Texas health institutions and the two new medical schools (UT Austin Dell Medical School and the UT Rio Grande Valley School of Medicine). Together, these institutions worked to identify pressing priorities in population health and potential strategies for addressing them. The goal is to leverage System-wide capacity and cross-disciplinary expertise to address and promote the needs of Texans. From reducing infant and maternal mortality in East Texas to improving liver cancer prevention in Latinos, the focus will be on identification, dissemination and implementation of best practices to improve health outcomes across the state. To do so, access to and sharing of data that best represents health at the local community level must be improved. Partnerships with local providers and organizations must be formed in order to tailor implementation efforts to the local community and cultural context. And the social determinants of health and their impact on health outcomes over the course of the life span must be accounted for.

Facing the Facts: Health Outcomes Must be Improved

The United States ranks first globally in health care expenditures, with an estimated 17.9% of GDP, or roughly $3 trillion-dollar aggregate annual cost, dedicated to health spending. Yet health outcomes in the United States remain poor. Of the 35 Organization for Economic Co-operative and Development (OECD) nations, the United States ranks 26th in average life span, at 79 years. Infant mortality rates are worse than 28 of the 35 other OECD nations, coming in just below Hungary. Although the U.S. has made progress in reducing the burden of infectious disease and tobacco use, preventable hospitalizations, and the overall number of uninsured, rates of

TEXAS HEALTH RANKINGS

10th in smoking rates

34th **in overall health**

23rd in infant mortality

28th in health disparities

44th in health of women and children

38th in health of seniors

cardiovascular disease, premature death, drug-related deaths, and obesity are increasing nationwide. This context translates to the state of Texas.

Over the last decade, Texas has improved its overall rankings, compared to other states, in key indicators of health. In 2017, the American's Health Rankings (AHR) report ranked Texas as the 34th healthiest state overall, while its ranking ranged from 42nd to 39th between 2008 and 2012. Areas in which Texas does well compared to its peers include a low rate of drug-related deaths, relatively low smoking rates (14.3% , ranking #10), relatively high rates of high school graduation, and low prevalence of frequent mental distress. Noted challenges include having the highest uninsured rates in the nation, having low levels of primary care physicians, and having high rates of diabetes. Texas' infant mortality rate is 23rd in the nation, at 5.8 per 1,000 births; its premature deaths (7,175) is 23rd; and its obesity ranking is 43rd. Texas ranked 44th in the AHR's 2017 "Health of Women and Children" report and 38th in its 2017 "Senior Report."

The Role of Health Disparities

To understand health in Texas, one must understand that "health" is not equally distributed across the state. Certain populations have better or worse health outcomes than others.

Understanding racial, ethnic and geographic disparities is key to developing a coherent population health strategic plan, and is one of the primary perspectives through which this plan was developed.

Texas is the most racially diverse state in America. According to the Texas Demographic Center, Texas has a 2018 projected population of almost 29 million, of whom 41.5% classify themselves as Hispanic or Latina/o, 40.3% as White, 11.4% as Black or African American, 4.8% as Asian, and 6.9% as Other. Examples of racial health disparities include:

- A three-year shorter life span of Black Texans compared to Whites and Hispanics.
- Infant mortality among Black Texans that is twice as high compared to other racial groups.
- Almost one-third of Hispanics and 14 percent of Blacks in Texas do not have health insurance as compared to 10 percent of Whites.
- Rates of HIV/ AIDS infection that are four times higher in Blacks.

Despite these staggering racial disparities, Texas ranks in the middle (28th) nationally in racial disparities in health. This does not mean Texas is

RACIAL DISPARITIES IN HEALTH

-3
3-year shorter life span of Blacks compared to Whites and Hispanics

2x
infant mortality among Blacks is twice as high compared to other racial groups

30%
higher rates of heart disease in Blacks

50%
higher rates of stroke mortality in Blacks

4x
higher rates of HIV/AIDS infection among Black Texans

doing well, but rather that the whole nation must do better at addressing disparities.

Texas also has significant geographic disparities. These geographic disparities can be as profound as the ethnic and racial disparities, and often can compound the problem. One example is the difference in health outcomes between rural and metropolitan regions of Texas. The "Health Status of Northeast Texas 2016" report, produced by The University of Texas System and UT Health Science Center at Tyler, demonstrated that if Northeast Texas (a region the geographic size of West Virginia and with a population of 1.3 million) was an independent state, it would be one of the unhealthiest states in America (Table 1).

Likewise, the South Texas Health Status Review[2] by UT Health San Antonio demonstrated that the Texas-Mexico Border (a 38 county region with a population of over 4 million-people) has significantly higher rates of several infectious diseases (including tuberculosis), higher rates of obesity and diabetes, higher rates of several cancers (liver, stomach and cervical), and higher levels of birth defects than Texas as a whole. Geographic disparities can also occur at a much smaller level, with contiguous zip codes[3] in a metropolitan area having very disparate health outcomes.

A final disparity is the profound difference in overall health outcomes for people with mental illness. In Texas, individuals with severe mental

Table 1. Age-adjusted mortality rates for Top 5 causes of death per 100,000 people: Northeast Texas compared to Texas (2014)

	Texas Rate	Northeast Texas Rate	Rate Difference	% higher rate in Northeast Texas	TX State Rank*	Northeast TX "State" Rank
Heart disease	169.9	226.4	56.5	33%	33rd	49th
Cancer	152.9	162.8	9.9	6%	13th	25th
Chronic lower respiratory disease	40.5	56.7	16.2	40%	21st	47th
Stroke	41.6	53.2	11.6	28%	38th	51st
Unintentional injuries	37.3	48.0	10.7	29%	9th	34th
All causes	**745.3**	**889.7**	**144.4**	**19%**	**31st**	**45th**

* A rank of 1=best (lowest) rate, 51=worst (highest) rate, with Northeast Texas included as a U.S. "state"
Data source: National Center for Health Statistics on CDC WONDER database. Rates are per 100,000 population.

illness live approximately 28 years less than the general population. This reduced life span is not due to suicide, but rather to the increased burden of chronic diseases such as diabetes and tobacco-related heart and cardiovascular disease.

Underlying Principles of the UT System Population Health Strategic Plan

Several models and frameworks were used to inform the development of the UT System's strategic population health approach.

Population Health

"Population Health" is a relatively new term in the health field, with varying perceptions of what it means. Health care executives, for instance, may relate it to the management of specific patient populations, with a focus on frequent utilizers of health care and the provision of special outreach and services to those patients. Other people may see the term as a synonym for traditional public health efforts, or, more broadly, as a general description of what we do collectively to keep society healthy.

For this strategic plan, the starting place is Kindig and Stoddart's definition from their seminal 2003 article, "What is Population Health?"[4] wherein they define population health as "the health outcomes of a group of individuals, including the distribution of such outcomes within groups."

Kindig and Stoddart also cite the definition of the Canadian Federal/Provincial/Territorial Advisory Committee on Population Health, which describes the population health approach as one that focuses on "interrelated conditions and factors that influence the health of populations over the life course, identifies systematic variations in their patterns of occurrence, and applies the resulting knowledge to develop and implement policies and actions to improve the health and well-being of those populations."[5]

The population health perspective is one that has to bring the public health sector together with the medical care sector to focus on improving health outcomes throughout a community.

The Triple Aim of Health Care Improvement

Improving the overall health of the Texas population will require Texans to think differently about how to improve health. Instead of just focusing on the availability and quality of care for those already sick, there is a need to focus on how to keep people healthy and how to better use limited resources. One framework to drive these improvements is the Triple Aim model developed and promoted by the Institute for Healthcare Improvement. The three components of the Triple Aim are:[6]

1. Improving the patient experience of care
2. Improving the health of populations
3. Reducing the per capita cost of health care

These three goals inform the UT System Population Health Strategic Plan, as does a broader commitment to using patient data, national data, and an understanding of the local context to move from a generalized approach to health to a tailored population health approach.

The Social Determinants of Health

A truly strategic population health approach must look beyond the walls of the exam room to the social and environmental factors that affect the health of communities, including the decisions people make about their own health, their socioeconomic status, and the environments and

places in which they live and work. An awareness of the social determinants of health is integrated into each approach within strategic plan.

A Call to Action for Higher Education

The Population Health Strategic Plan is informed by "Strategic Planning in Population Health and Public Health Practice: A Call to Action for Higher Education," by Phelps, Madhavan, Rappuoli et al. The article calls on institutions of higher learning to train the next generation of public health workers to think strategically and holistically about public and population health planning.[7]

UT System is poised to disseminate its approaches to population health beyond single metrics and narrow focuses, and to develop and train students, faculty and communities to improve population health and public health practice through collaborative engagement.

Academic Health Systems' Third Curve

The strategic plan is also informed by "Academic Health Systems' Third Curve: Population Health Improvement," by Washington, Coye, and Boulware. In their formulation, academic health systems have made great strides in addressing and improving the "first curve" of individual patient care, as well as the "second curve" of population health management (which deals with the health of specific populations that seek care at their institutions). The next frontier for these systems is taking responsibility for the "third curve" of population health improvement.

They write: "The goal of population health improvement is to enhance the health of all individuals in a population, often characterized as a city, zip code area, or specific geography. Compared with the first and second curves, the third curve requires greater emphasis on factors and influences unrelated to health care."

This broader effort toward population health improvement seeks to take responsibility not just for those who seek care at UT institutions, but all of those who are part of the communities in which the institutions reside, whether or not they're patients.

Development of Institutional Population Health Plans

Over the past year, all eight UT health institutions, including the two new medical schools at UTRGV and UT Austin, focused on the development of institutional population health strategic plans. These plans were developed through a series of internal and community meetings, surveys, and data analyses. The UT institutions identified the major health challenges in their communities and opportunities for their institution to make a difference.

The UT System Population Health Strategic Plan represents this cross-institutional work. Together, the institutions have identified the key local priorities in population health along with potential strategies for addressing those needs through education and workforce development, technology development and data sharing, and expansion of access to evidence-based interventions and preventive and primary care treatments.

Summaries of the individual institutions' strategic plans and full institution plans are available at the UT System Population Health website. (http://utsystempophealth.org)

Catchment area map of UT health and medical instututions

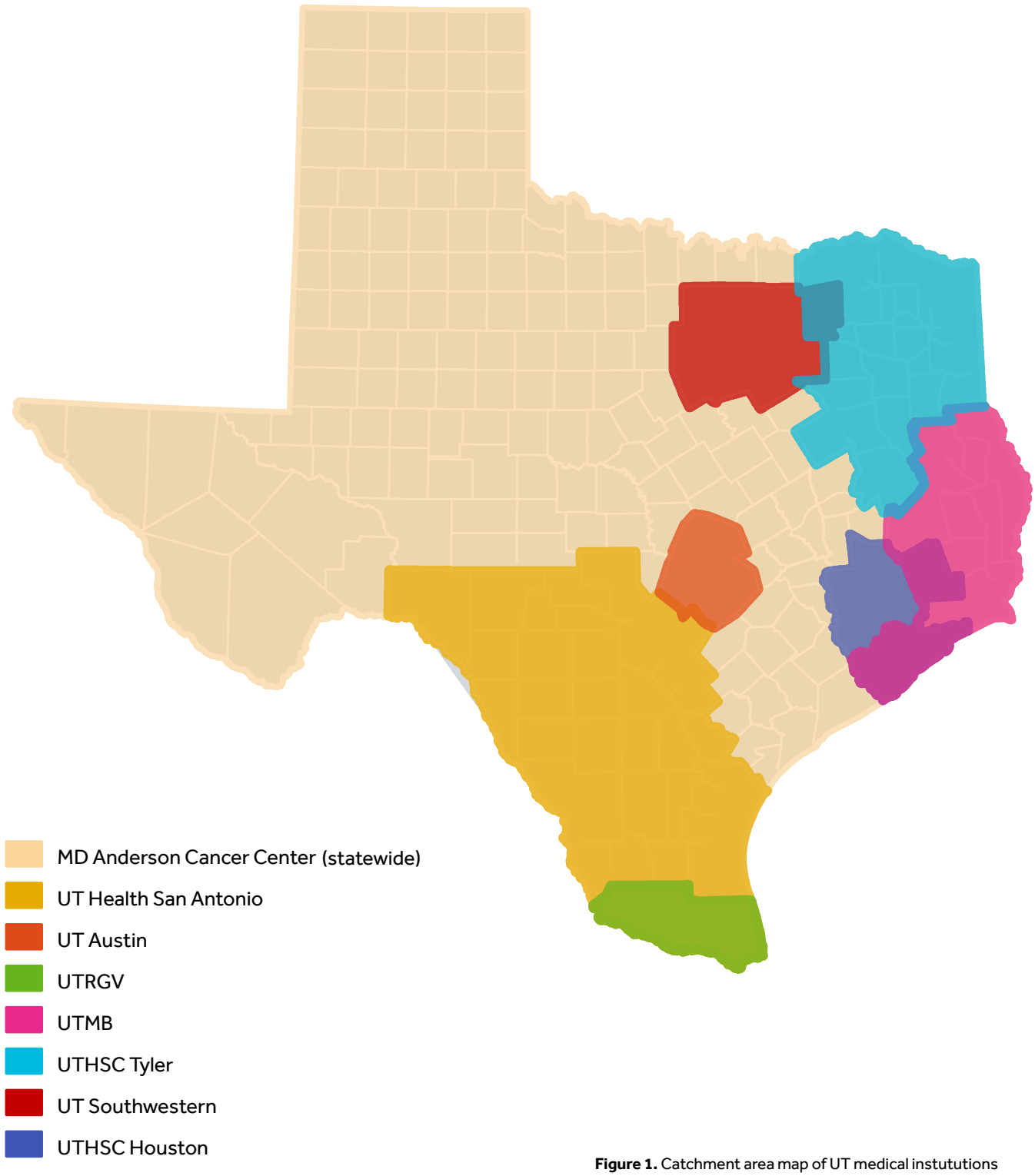

Figure 1. Catchment area map of UT medical instututions

UT CoPHII's Recommendations

Drawing from the strategic population health plans developed by UT's six health institutions and two new medical schools, the UT CoPHII leadership team identified cross-institutional themes, challenges, and opportunities. The team synthesized unifying priorities for the UT CoPHII collaborative and identified six key objectives, along with a set of recommendations for each objective.

Objective 1: Increase UT System Collaborations to Address Population Health

- Support and expand UT Systemwide collaborations.
- Identify and promote institutional regional population health infrastructure.
- Identify UT System institutions' best practices for information dissemination and program implementation.
- Identify additional ways to partner with Texas agencies and other university systems to address key health issues.
- Develop and implement a systemwide set of competencies in population health for inclusion in undergraduate, graduate and professional schools.
- Work together to identify and secure funding for population health improvement.

Objective 2: Develop Strategies to Promote Data Sharing, Repository Use and Analytics

- Identify and improve population health data availability, access, assessment, and monitoring.
- Develop cross-institutional data storage and sharing.
- Increase UT System's capacity for advanced data capture, integration, management, and analytics.
- Expand state, county and community infrastructure to enhance data sharing and use.

Objective 3: Increase Use and Reach of Telemedicine for Delivery of Primary and Secondary Care

- Increase use of telemedicine to address health disparities and gaps in care coverage for rural populations.
- Identify and address community telemedicine use and acceptability to ensure reach and acceptance of telehealth care model.
- Train providers and clinical leadership to advance the use of telemedicine and telementoring across Texas.
- Develop and maintain telemedicine technology to address population health priorities, including the collection of data to evaluate reach and implementation.

• **Objective 4:** Promote Cancer Prevention and Screening

- Expand and improve prevention and screening efforts using population data.
- Disseminate evidence-based community cancer prevention strategies targeting tobacco control.
- Expand HPV cancer prevention and colorectal cancer screening.
- Address emerging cancer prevention needs, including chronic hepatitis.

Objective 5: Prioritize Mental Health and Expansion of Integrated Mental Health Services

- Identify best practices to encourage mental health screening in primary care.
- Expand the use of telehealth to enhance access to mental health care.
- Identify strategies to promote community understanding of mental health as a means to increase use of needed services and reduce stigma related to mental health diagnosis.
- Increase the mental health workforce through training and recruitment.
- Continue to develop partnerships between academic institutions and the state mental health inpatient and outpatient systems.
- Develop a collaborative mental health research agenda for Texas.

Objective 6: Advance Health and Health Care Workforce Development

- Integrate population health in medical and health professions education.
- Incorporate the social determinants of health into the education and training of current and future health care professionals.
- Advance the skill sets of the health and health care workforce to improve population health in Texas.