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FOR
HEALTH AFFAIRS COMMITTEE**

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Board Meeting: 11/15/2018
Richardson, Texas

*Paul L. Foster, Chairman
Ernest Aliseda
David J. Beck
R. Steven Hicks
Jeffery D. Hildebrand
Janiece Longoria*

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Convene	<i>1:30 p.m. Chairman Foster</i>		
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Adjourn	<i>2:15 p.m.</i>		

1. **U. T. System Board of Regents: Discussion and appropriate action regarding Consent Agenda items, if any, assigned for Committee consideration**

RECOMMENDATION

The proposed Consent Agenda items assigned to this Committee are [Items 51 - 74](#).

2. U. T. Health Science Center - San Antonio: Approval to establish a Doctor of Philosophy degree program in Health Sciences

RECOMMENDATION

The Chancellor concurs in the recommendation of the Executive Vice Chancellor for Health Affairs and the institutional president that authorization, pursuant to the Regents' *Rules and Regulations*, Rule 40307, related to academic program approval standards, be granted to

- a. establish a Doctor of Philosophy degree program in Health Sciences in the Graduate School of Biomedical Sciences, in collaboration with the School of Health Professions at U. T. Health Science Center - San Antonio; and
- b. submit the proposal to the Texas Higher Education Coordinating Board for review and appropriate action.

BACKGROUND INFORMATION

Program Description

The Graduate School of Biomedical Sciences, in collaboration with the School of Health Professions at U. T. Health Science Center - San Antonio, proposes to offer a Doctor of Philosophy (Ph.D.) degree program in Health Sciences. The proposed program is designed to prepare allied health professionals to assume major leadership, research, and educational positions within their professions as well as providing preparation for career advancement opportunities at colleges and universities, research institutions, clinical agencies, governmental and health care organizations, and in industry. The Ph.D. in Health Sciences is intended to be a broad-based, interprofessional degree that will allow graduates to place their individual health field in the context of the allied health disciplines, the health care delivery system as a whole, and the larger issues of health and wellness across the continuum of the health care system.

For students entering with a master's or professional doctoral degree (e.g., Doctor of Occupational Therapy or Doctor of Physical Therapy), the minimum number of additional semester credit hours (SCH) required for completion of the Ph.D. in Health Sciences will be 68 SCH for a total of 98 SCH; such students may transfer up to 30 SCH towards fulfillment of Ph.D. program requirements. Students entering the program with a bachelor's degree will be required to complete a master's degree in an allied health-related discipline or complete 30 SCH of other acceptable graduate credit. Including the master's degree course work (30 SCH), a total of 98 SCH is required for award of the Ph.D.

The Ph.D. in Health Sciences consists of four major core areas: Education (12 SCH), Research and Statistics (16 SCH), Leadership (10 SCH), and Professional Track (9 SCH). In addition to the four core areas, 12 SCH of electives and 9 SCH of dissertation research hours and successful defense of the dissertation research project is required. The nine hours of Professional Track credit provides advanced cognate courses in specific allied health disciplines offered at U. T. Health Science Center - San Antonio. The 12 SCH of elective course work may include the advanced biomedical sciences, clinical sciences, education, management and

supervision, leadership principles, measurement and statistics, and additional research courses that are available at U. T. Health Science Center - San Antonio. Courses will be offered online, and in face-to-face/blended formats integrating distance technology, where appropriate.

The goals of the program are to: (1) prepare competent Health Science professionals at the doctoral level to assume leadership roles as educators, researchers, and leaders; (2) provide leadership training in specific clinical-related specialty areas; and (3) develop individuals who can formulate appropriate questions, organize and test hypotheses, and apply research results to improve health care.

Need and Student Demand

Allied health may be broadly defined as those health professions that are distinct from medicine and nursing. Allied health workers in the U.S. represent approximately 60% of the health care workforce. Allied health professionals are trained at colleges and universities and according to the Bureau of Labor Statistics (BLS) and the Texas Workforce Commission, there will be large workforce shortages in almost all allied health fields in Texas and the U.S. As seen in the below chart, BLS projects that the workforce demand for the allied health disciplines specifically addressed by the proposal range from a 12.7% to 37.4% increase for the period 2016 to 2026.

Occupation	Employment Numbers			Replacement Total
	2016	2026	%	
Clinical laboratory technologist and technicians	335,700	378,300	12.7%	42,700
Emergency medical technicians and paramedics	248,000	285,400	15.1%	37,400
Occupational Therapists	130,400	158,000	27.7%	21,200
Physical Therapists	239,800	299,800	25.0%	60,000
Physicians Assistants	106,200	145,900	37.4%	39,700
Respiratory Therapist	130,200	160,600	23.4%	30,400
Speech-language Pathologist	145,100	170,500	17.5%	25,400

Due to the large workforce demand, optimization of training program enrollments at colleges and universities requires sufficient numbers of well-qualified faculty in the allied health disciplines available for hiring. Many allied health programs report faculty shortages that have persisted for many years.

Many current allied health faculty members are approaching retirement age and the availability of qualified, doctorally-prepared individuals to assume roles as allied health faculty members is at risk. There is also a significant need for researchers prepared to conduct outcomes research in the allied health disciplines to ensure care provided continues to be cost-effective and appropriate and to evaluate new forms of care as they emerge.

There are many practicing allied health professionals interested in completing a doctoral degree in health sciences to prepare them for faculty and leadership positions. This is most evident in colleges and universities that have allied health training programs. Often, faculty teaching in these college and university programs have professional master's degrees (e.g., Master of

Occupational Therapy, Master of Science in Medical Laboratory Sciences, Master of Science in Respiratory Care, Master of Science in Physician Assistant Studies, Master of Science in Speech Language Pathology), but lack a terminal doctoral degree. Regional accrediting bodies such as the Commission on Colleges of the Southern Association of Colleges and Schools (SACSCOC) are increasingly reluctant to allow allied health faculty without a terminal doctoral degree in a health sciences-related discipline to teach allied health graduate students. The proposed program would allow faculty currently teaching in allied health programs to obtain the requisite doctoral degree.

In 2016, according to the National Science Foundation National Center for Science and Engineering Statistics Survey of Earned Doctorates, there were 11,183 doctorate recipients in the life sciences (biological, biomedical, and health sciences) nationwide and of those, 3,976 were in Texas. Currently, there are only two programs awarding the Ph.D. in Health Sciences in Texas and only a small number of such programs in the U.S. Not only is there demand for doctorally-prepared faculty to succeed current allied health faculty, but there is also a significant need for faculty to conduct outcomes research in the allied health disciplines.

Over the past five years, public four-year universities across the state have increased annual baccalaureate degrees awarded to students with majors in the biological sciences (e.g., general biology, microbiology, molecular biology, cell biology) by 11.7%. Thus, in 2013, over 4,000 students graduated from these biological sciences programs, providing one indicator of the level of interest present in students to pursue a bachelor's degree that prepares students for graduate programs in the health sciences (including research). Each year, many graduates earn a bachelor's or master's degree in an allied health discipline.

Texas Public University Allied Health Graduates in Selected Fields, 2014-2015

Discipline	2014-15 Graduates
Audiology and Speech-Language Pathologist	230
Community Health Services	122
Dietetics and Nutrition	85
Health and Wellness, General	786
Health Care Management	444
Health Services	278
Medical Laboratory Sciences	158
Occupational Therapist	164
Physical Therapist	201
Physician Assistant	79
Rehabilitation Sciences	382
Respiratory Therapist	101
Speech-Language Pathologist	239
Total	3,269

Thus, there is a large pool of individuals completing graduate professional degrees in the allied health sciences, and many of these may choose to go on and pursue the Ph.D. in Health Sciences.

Program Quality

Fourteen (14) core faculty and nine (9) supporting faculty from the U. T. Health Science Center - San Antonio School of Health Professions will support the program. New faculty to be hired include one individual to serve as program director to manage the program. The remainder of the core and support faculty will be drawn from existing faculty who currently teach in their disciplines and bring significant experience in allied health, the biosciences, research, leadership, and education. These core and support faculty have the requisite research and scholarly productivity needed and current or past funding in various areas including community service learning, rehabilitation outcomes, education, the biosciences, and medicine.

An existing Program Review and Outcomes Assessment system will be used to evaluate program resources (i.e., faculty, support staff, facilities, library, learning resources, and web-based instructional services) and program outcomes (job placement, graduate satisfaction, employer satisfaction). Program evaluation will occur annually and will include multiple inputs: resource assessment surveys completed by students; standardized course and instructor evaluations completed at the conclusion of each course; graduate exit and follow up surveys to assess achievement of program goals and objectives; program applicant pools, entering students, attrition, and graduation success; curriculum review; teaching and learning artifacts (e.g., course syllabi, instructional materials); and review of student dissertation research projects completed and resultant peer-reviewed publications.

U. T. Health Science Center - San Antonio's Academic Learning and Teaching Center (ALTC) opened in February 2016, adding 33 state-of-the-art classrooms and the ability to accommodate variable configurations. The 130,000-square-foot building also features strategic learning spaces and cutting-edge technology in the digital anatomy laboratory. In addition to the ALTC, three programs in the School of Health Professions (Occupational Therapy, Physical Therapy, and Speech-Language Pathology) recently moved into 46,000 square feet of renovated space in the Dental School. The move, which occurred upon completion in Fall 2018, enables the School of Health Professions to operate in a consolidated, contiguous area on the Long Campus, where the administrative offices of the Graduate School of Biomedical Sciences are located. The School of Health Professions gains dedicated research space, expanded faculty office space, a student lounge, study areas, and two large flex labs for classroom instruction. The physical environment will further promote interprofessional research and learning the proposed Ph.D. program aims to cultivate.

Revenue and Expenses

Projected Enrollment	5-Year Total
Number of Students Used for Formula Funding Calculation	30
Total Number of Students	30
Expenses	5-Year Total
<i>Faculty</i>	
Salaries	\$1,084,005
Benefits	
<i>Graduate Students</i>	
TA Salaries	\$0
TA Benefits	\$0
GRA Salaries	\$0
GRA Benefits	\$0
<i>Staff and Administration</i>	
Graduate Coordinator Salary	\$0
Administrative Staff Salaries	\$167,345
Staff Benefits	
SCC Operating Benefits	
<i>Other Expenses</i>	
Supplies and Materials	\$82,500
Equipment	\$25,000
Other (Travel)	\$15,000
Total Expenses	\$1,373,850
Revenue	5-Year Total
<i>From Student Enrollment</i>	
Formula Funding	\$684,833
Tuition and Fees	\$756,024
<i>From Institutional Funds</i>	
Reallocation of Existing Resources	\$500,000
Total Revenue	\$1,940,857

Coordinating Board Criteria

The proposed program meets all applicable Coordinating Board criteria for new doctoral degree programs.

3. U. T. System: Report on the U. T. System Virtual Health Network Infrastructure

REPORT

President Callender and Alexander Vo, Ph.D., Vice President of Telemedicine and Health Innovations at U. T. Medical Branch - Galveston, will report on the U. T. System Virtual Health Network Infrastructure.

A PowerPoint presentation is set forth on the following pages.

BACKGROUND INFORMATION

At the November 4, 2015 meeting of the Board of Regents' Health Affairs Committee, President Callender and Dr. Vo reported on the status of telemedicine in Texas and introduced a proposal to create a U. T. System Virtual Health Network Infrastructure, including the implementation of a pilot telemedicine project across the U. T. System health institutions.

On February 11, 2016, the Board of Regents approved \$10.8 million from the Available University Fund or the Permanent University Fund to support a new U. T. System Virtual Health Network Infrastructure.

The University of Texas System Virtual Health Network Infrastructure

David L. Callender, M.D., MBA, FACS
President
U. T. Medical Branch - Galveston

Alexander H. Vo, Ph.D.
Vice President, Telemedicine and
Health Innovations
U. T. Medical Branch - Galveston

U. T. System Board of Regents' Meeting
Health Affairs Committee
November 2018

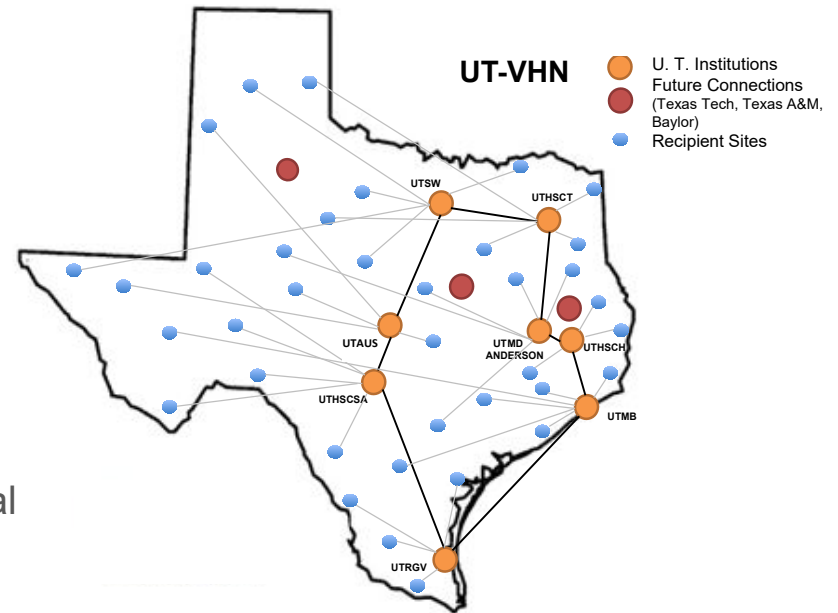


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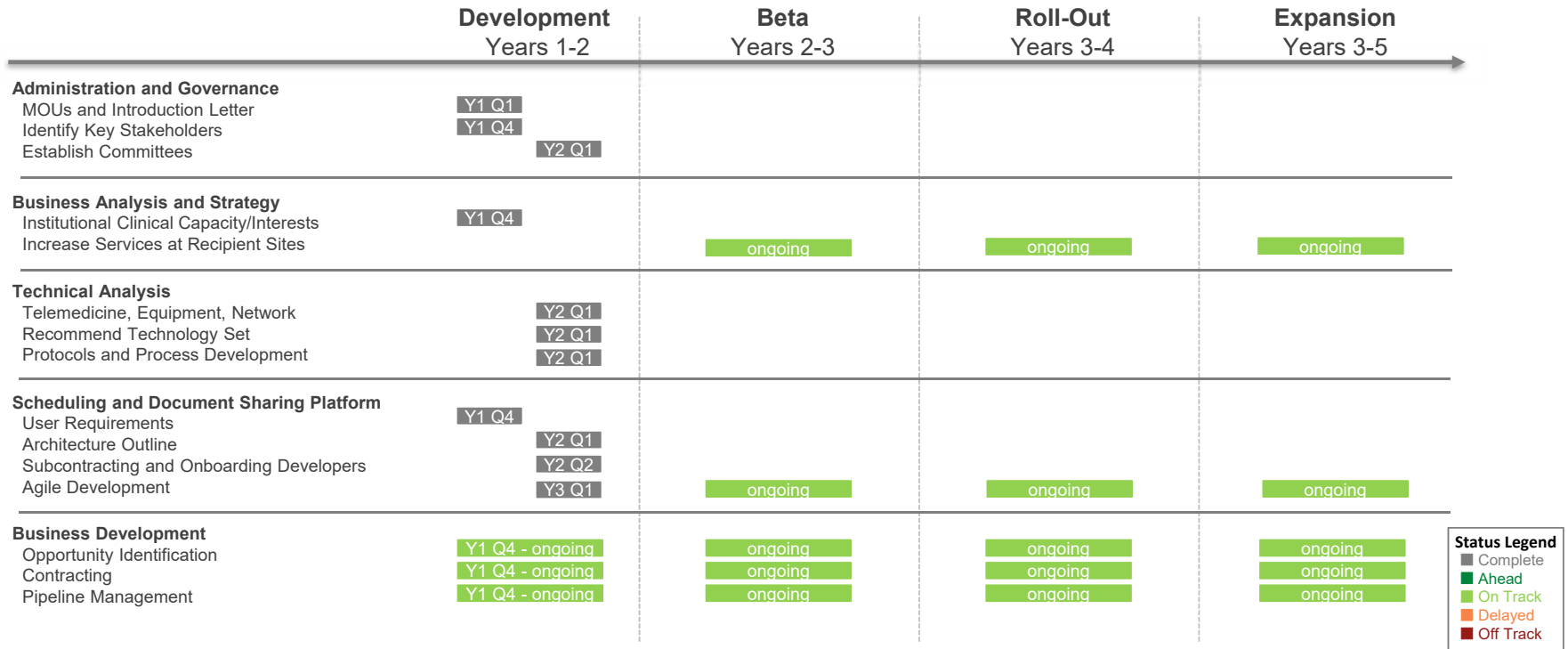
Taking the Lead in Telehealth: The U. T. Virtual Health Network (UT-VHN)

U. T. System is leveraging technology to create a model for care delivery that:

- Expands current programs
- Initiates innovations
- Facilitates virtual centers of excellence
- Provides access to every citizen
- Serves as a conduit for coordinated care
- Bridges access to specialty services for rural providers and their patients
- Invites collaborations across institutions



Major Milestones: Status as of Year 3, Quarter 1

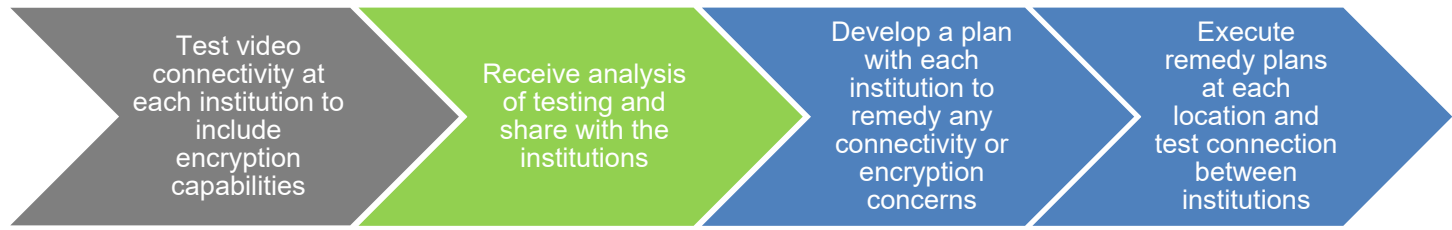


UT-VHN Technical Progress

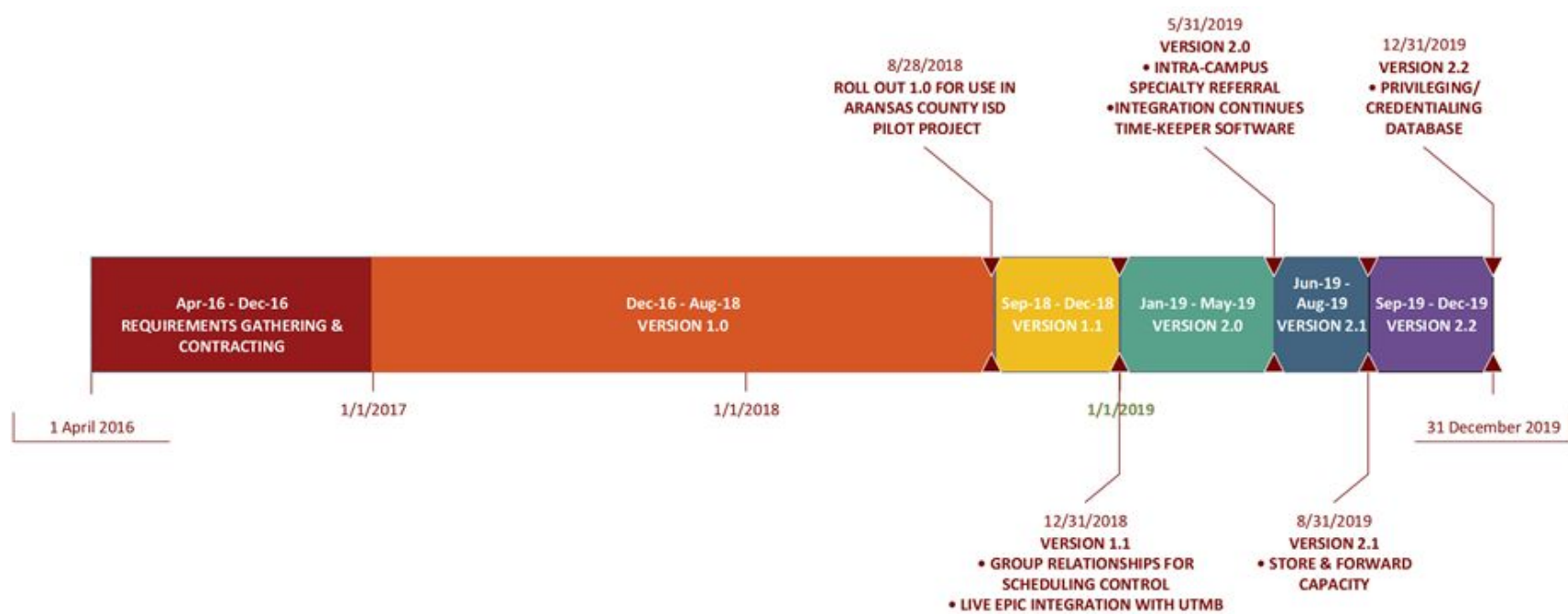
- > Video Communications Platform
- > Scheduling Platform



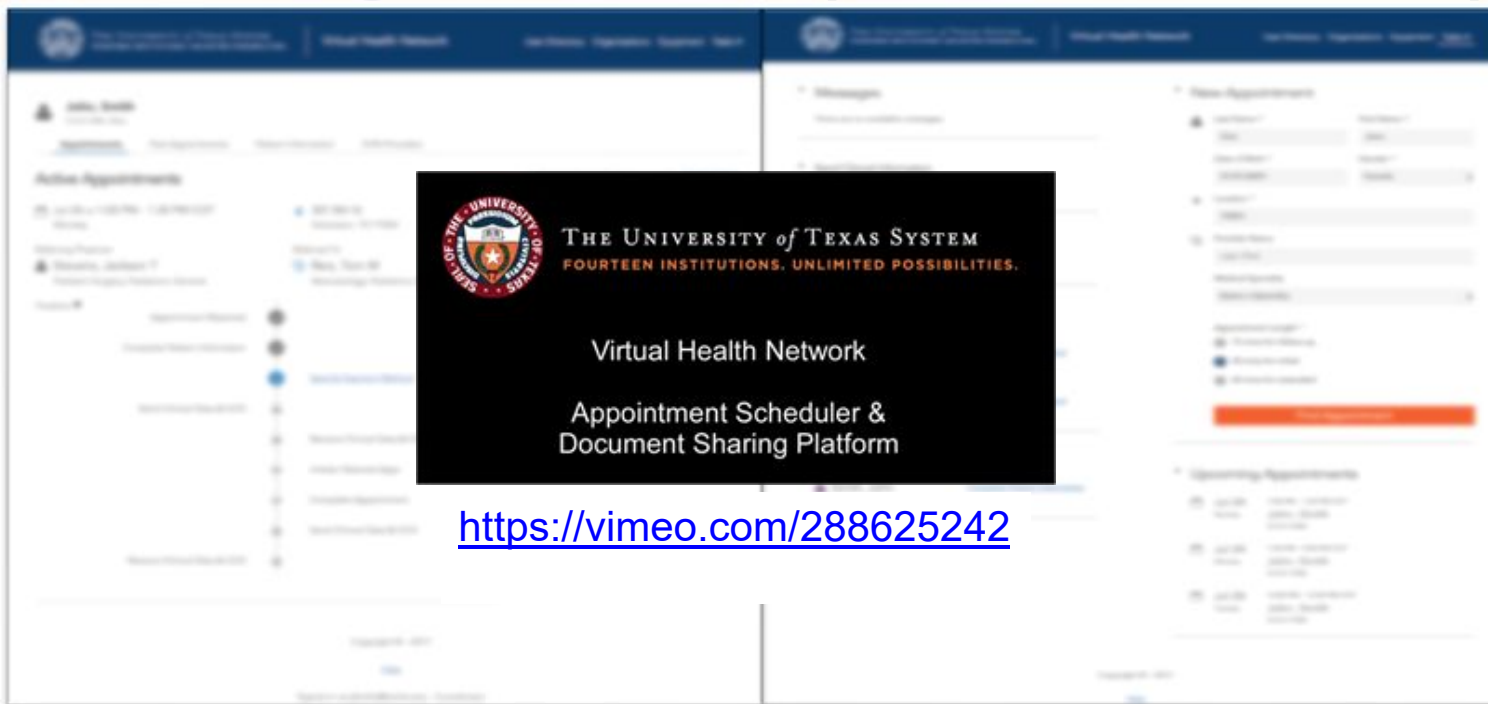
Video Communications Platform



Scheduling Platform: Future Milestones



Scheduling Platform (Demonstration)



UT-VHN Clinical Expansion

- Overview of Active Projects
- Statewide Possibilities
- Facilitated Revenue



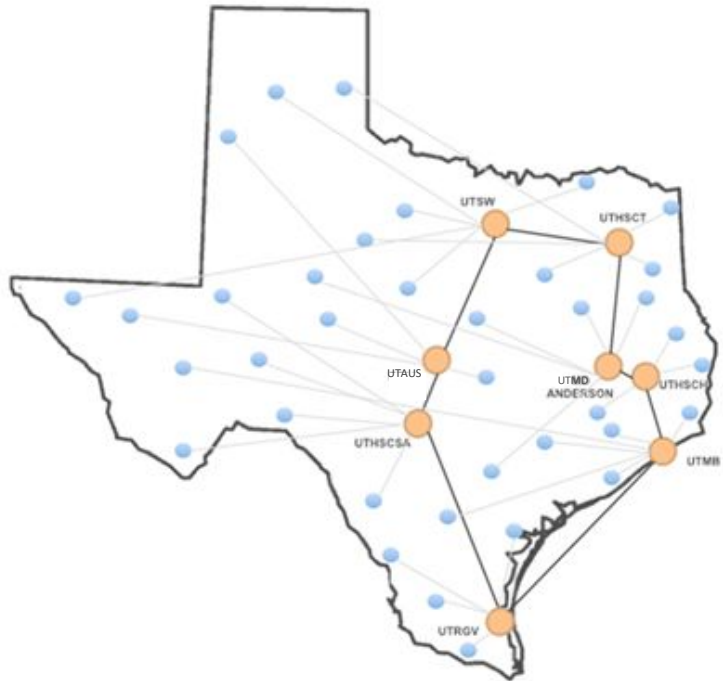
Telemedicine Project Pipeline



	Initial Discussion	Key Stakeholders Identified	Expression of Intent/Potential Pilot	Expansion Pending	Contracting and Operational
UTHSCSA			Care coordination with UTMDACC's Pediatrics, HIV, Nephrology, and Hepatitis C		
UTAUS Dell Medical School	Identifying best programs and area				
UTRGV School of Medicine		Identifying best programs in local school districts		San Carlos, La Victoria Primary Care, Bob Clark, and Laguna Vista Clinics	
UTSWMC		Pre/post-operative care for transplant patients		HB1697 Pilot with Texas Health and Human Services Commission (HHSC), Navarro Regional Hospital, and Children's Medical Center Dallas	
UTHSCT			Link to Athens Hospital; Genetic Counseling with UTMDACC		Link Riter Center to North Tyler Clinic (behavioral health and nutrition)
UTMDACC			Care coordination with UTHSCSA and UTHSCT – Genetics (Legal Review)		Infectious Disease care at satellite centers (Bay Area Clinic moving to League City)
UTHSCH			Fetal Diagnosis and Treatment (Austin Maternal Medicine); Joint Project: Houston Independent School District (ISD) Psych Care and Spring Branch Community Health Center	HB1697 Pilot with HHSC and Matagorda Regional Medical Center	Psych services: Oct 2017 Wichita Falls; Psych services: Jan 2018 Vernon; HHSC Expansion in FY2019
UTMB			FQHC partnership for HIV subspecialty care; Joint Project: Galveston ISD Psych Care	Staff health clinic services: expansion plans	Primary care services: Mexia State Supported Living Center (SSLC); Behavioral Health: Aransas County ISD; U. T. System Administration Employee Health (pending expansion plans)



Statewide Possibilities for UT-VHN Projects



Disaster Recovery

Proposed Program: Partner with the Texas Guard/Texas Department of Public Safety and leverage UT-VHN to bring multi-specialty care providers online in times of disaster

- Details: A grant proposal for a proof of concept exercise was submitted in mid-August 2018 to the federal office of the Assistant Secretary for Preparedness and Response

HHSC State Living Facilities Specialty Care

Proposed Program: Contract to provide care in various specialties to the multitude of SSLCs around the state

- Details: Initial discussions with HHSC have occurred

Texas Department of Family and Regulatory Services

Proposed Program: Contract to provide assessments and care to underserved areas of the state

- Details: Meeting for preliminary discussions pending



Facilitated Revenue to U. T. Institutions from Contracts

Contract	Worth	Estimated Value
UTHSC-Houston – HHSC Telepsychiatry – State Mental Health Hospitals	\$547,400	\$2.636 million with provision of additional six providers expansion
UTMB – HHSC Telemedicine – Primary Care – Long Term State-Assisted Living	\$330,561	\$991,683 with provision of two additional sites
Rebuild Texas – Aransas Pass ISD – Telepsychiatry	\$280,000	\$280,000
U. T. System Admin Employee Health Pilot	\$75,000	\$75,000
Total Facilitated Revenue	\$1.232 million	\$3.983 million

Acknowledgment

UT-VHN Staff

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