# TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER™

F. Marie Hall Institute *for* Rural *and* Community Health

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# 14

Annual Report

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# Letter from the Executive Vice President and Director

The F. Marie Hall Institute for Rural and Community Health at the Texas Tech University Health Sciences Center exists because of the vision and generosity of a West Texas leader, Marie Hall. Because of her keen understanding that there needed to be a place within the Health Sciences Center that was special, this Institute that bears her name was formed. The F. Marie Hall Institute is a place where innovation happens, where risky programs are tried, where success and failure both add to what we know, where we think and work "outside the box" as the norm.

Most importantly, this Institute is where the best and brightest minds of our people are blended together in teams that regularly and easily cross disciplines in an interprofessional way. The Institute is a place where students are an important ingredient to what we accomplish. The 2014 Annual Report which follows will give you a glimpse of what we do here to honor the spirit that we share with Marie Hall. She loves students and as you read our publication record there will be tangible evidence that our students are now published because of what they did with us. We love our law and health IT interns, our graduate students from TTU that help with webpages, research projects and all manner of other work. We are so pleased to have had a major role in starting the Public Health Program and in welcoming the inaugural class just days ago.

Inside the 2014 Annual Report you will see that the Institute continues to grow in people and programs. The external monetary support for our work has grown and we are among the highest percentage of competitive funding in the Health Sciences Center. As you read about our core programs you will be amazed at all that we do to address rural health needs, to reduce rural health disparities, and to improve rural health outcomes far into the future for the people of West Texas. Our programs are innovative and sometimes risky because they have never been done before, like the Telemedicine Wellness, Intervention, Triage and Referral Project (TWITR). That effort alone focuses on screening school children who are an eminent threat to harm themselves or others. This has blended expertise from the TTUHSC Department of Psychiatry, the Research Group, the Telemedicine Team, and the AHEC staff. We cross boundaries of all kinds as we make a positive difference in the communities we serve. TWITR is just one example.

This has been another very successful year for the people of the Institute. Chris Felton, Associate Director for the West Texas AHEC, was one of twelve rural health fellows that completed the fellowship program by the National Rural Health Association. Travis Hanson, Executive Director of the West Texas HITREC, was selected to receive the Chancellor's Colonel Rowan Award for Execution which recognizes an individual who demonstrates the ability to execute and follow-up with important projects. If we listed all the honors our people received there would be little room left to tell you about our programs. These are stellar people.

This concludes five years that I have led the F. Marie Hall Institute. I never dreamed it would turn out this well, or be this much fun, or that I would work with such a wonderful group of people. It has been my great honor and high privilege. Read our report and you can see why I think that I have the best job and work at the best Health Sciences University in the world. Guns Up!

*- Billy U. Philips, Jr.*

# Introduction

The F. Marie Hall Institute for Rural and Community Health (FMHIRCH) continues to support, expand, and redefine its efforts in West Texas to reach and meet the needs of people in rural and urban communities within the Texas Tech University Health Sciences Center (TTUHSC) region and beyond. On the edge of cutting innovation and ideas, the FMHIRCH is a leader in rural outreach and community partnerships that service health care providers and patients.

The FMHIRCH continues to expand its knowledge, staff, and ideas in an effort to collaborate with health care partners in the area and strive to look for opportunities to provide education, innovative health information technology, and research to West Texas.

The TTUHSC is making great strides in education, research, and health care. The FMHIRCH has made significant growth in support of all these areas since 2006, and it will continue to do so in the future. With many ways to measure success in the FMHIRCH, focusing on the multiple key programs exemplifies its endeavors. The core programs of the FMHIRCH are:

- West Texas Area Health Education Center (AHEC)
- West Texas Health Information Technology Regional Extension Center (WTxHITREC)
- Telemedicine
- Rural Health Research
- Telemedicine, Wellness, Intervention, Triage and Referral (TWITR)

There is growth in virtually every program, with notable additions of the TexLa Telehealth Resource Center, funded by the U.S. Department of Health and Human Services, and the establishment of a Data Management and Analytics group within the FMHIRCH. The 2013-2014 Annual Report of the F. Marie Hall lnstitute for Rural and Community Health highlights the steadily increasing effort of its endeavors to reach the rural population and make a difference in health care in West Texas and throughout the state.

## The Telemedicine Wellness, Intervention, Triage and Referral Project (TWITR):

The Telemedicine Wellness, Intervention, Triage and Referral Project (TWITR) is a unique demonstration project developed in 2013 that was created to help bridge a gap in mental health services in West Texas. TWITR, an initiative funded by the State of Texas Office of the Governor's Criminal Justice Department, promotes school safety by providing psychiatric assessment and referral services to students struggling with behavioral and mental health issues who are imminently dangerous to themselves or others.

In 2013, the TWITR Project and Department of Telemedicine within the F. Marie Hall Institute for Rural and Community Health (Institute) at the Texas Tech University Health Sciences Center (TTUHSC) partnered with the Department of Psychiatry at the TTUHSC, implementing a more effective way to help identify, assess, and address needs of adolescents in West Texas through mental health intervention. Partnership goals include: providing school-based psychiatric interventions; improving academic performance in children and adolescents struggling with mental illness; improving TTUHSC services; and impacting the communities served by these interventions.

The TWITR Project covers a geographic area within Lubbock County and into the surrounding counties of Hale, Lamb, Hockley, Terry, Lynn, Garza, Crosby, and Floyd. The TWITR Project is collaborating with six to nine Independent School Districts (ISDs) measuring the impact of a tele-health link between early high school and middle school students deemed at-risk for mental health issues.

## The Youth Empowerment Training Initiative (YETI Project):

The Youth Empowerment Training Initiative (YETI Project) is devoted to addressing several factors of concern with youth: juvenile delinquency, mental health/suicide, and adolescent substance abuse among ages 10 to 24, with a target population of about 27,500 students within the 35 rural school districts in its service area. This funded Texas Healthy Adolescent Initiative, through the Department of State Health Services, serves as a prevention extension of TWITR, as it focuses on improving self-esteem, communication skills, and problem management and avoidance in the adolescent population within the rural populations of Lubbock County and the surrounding counties of Lamb, Hale, Floyd, Crosby, Garza, Lynn, Terry, and Hockley.

## Vision 21 Project:

In an effort to help coordinate services and bridge a gap from health care providers to the Children's Advocacy Centers (CACs) in West Texas, the Institute is in the process of collaborating with the Texas Criminal Justice Division at the State Governor's Office to develop a pilot program that will address these needs. The Vision 21 Program, funded through the Office for Victims of Crimes, will focus on providing training to five CACs in West Texas regarding telemedicine use for mental health services and help coordinate services via telemedicine to victims of child abuse who are served by these CACs.

## Innovative Health Information Technology (InHIT):

Merging the synergy between Telemedicine and the West Texas Regional Extension Center, the Innovative Health Information Technology (InHIT) was formed and assists health care providers and hospitals in modernizing their organizations with the use of certified electronic health records (EHRs) and telehealth technology. Through innovation and determination, InHIT provides consulting services to support health care providers and hospitals with health information technology (HIT) adoption and practice management solutions to improve quality of care. Through its work in assisting providers and hospitals in implementing certified EHRs, InHIT has recognized and developed the following HIT services and practice management solutions to address the needs of these organizations:

- Supporting specialists, hospitals, and PCPs with EHR adoption, implementation (and expansion or replacing of current EHRs), pre and post payment audit support to successfully achieve meaningful use, access to additional financial incentives, and enhancement of quality health care services;
- Assisting specialists, hospitals, and PCPs in connecting to available health information exchanges (HIEs), and providing guidance and support related to interoperability and interface connectivity;
- Providing a broad range of services to specialists, hospitals, and PCPs, which include project management assistance, practice workflow redesign support, privacy and security best practices education, accountable care organization (ACO) education and support, patient-centered medical home (PCMH) education and support, ICD-10 transformation support, clinical quality coaching, and Telemedicine/Telehealth medical services support.
- Provision of Telemedicine, to help access barriers related to distance, yielding better quality patient care that meets the local needs of rural and urban communities that are great distances from specialists and other kinds of providers.  Telemedicine has expanding innovations in several areas including: Rural Telemedicine; Correctional Telemedicine; Mental Health Services; Adolescent Diabetes Studies; HIV Services in Abilene; and the Telehealth Resource Center – servicing Texas and Louisiana.

## TexLa Telehealth Resource Center (TexLa TRC):

The telemedicine programs of TTUHSC and Louisiana Health Care Quality Forum have recently partnered to collaborate on future services through the TexLa Telehealth Resource Center (TexLa TRC). TexLa TRC, funded by  the Office for the Advancement of Telehealth, Health Resources and Services Administration at the  Department of Health and Human Services, works with healthcare providers, clinics and institutions to ensure efficiency, sustainability and patient satisfaction. Telehealth delivers the doctor to the patient, regardless of the distance and can help provide the best telehealth services. Since September 2012, the TexLa Telehealth Resource Center has provided technical assistance to over 1,200 individuals through its endeavors in Texas and Louisiana. TexLa TRC continues to provide telehealth technical assistance and resources to new and existing telehealth programs throughout Texas and Louisiana; develop an interactive, hands-on training center to provide guidance in telehealth planning, implementation, management and sustainability; educate policy makers about legislative and regulatory barriers to telehealth use in both states and to work to improve reimbursement for telehealth service with CMS and third-party payers; collaborating with other TRCs, sharing resources and lessons learned to help promote best practices in telehealth nationwide.

## Area Health Education Center (AHEC) Concho Valley Office:

The West Texas AHEC currently has a program office in San Angelo, Texas, (the Concho Valley Office) to reach the population in the area and encourage the growth of healthcare providers in this region. This office, established in 2013, offers support for community health initiatives, workforce development, and health careers promotion in and around the area. As an added extension to the West Texas AHEC, establishment of a Concho Valley AHEC Center is envisioned for this area, as it would help provide additional staff to adequately reach the population and encourage the growth of healthcare providers in this region.  The Center would allow for stream-lining of resources and expanded programming by reducing travel distance and time needed to provide these services, reducing health disparities and health care provider shortages, decreasing the barriers to healthcare access in the region, and building relationships with healthcare providers and educators in the communities within that area.

## Texas H.O.T. Jobs:

The Texas H.O.T. Jobs, developed by the Texas Area Health Education Centers, is the only comprehensive resource guide about health care opportunities for career seekers in the state and offered in both English and Spanish online and through mobile applications. The H.O.T. Jobs books are circulated to middle and high school students as well as adult job seekers throughout the West Texas AHEC region and the State. A total of 21,617 books were distributed in the West Texas AHEC region in fiscal year 2014, and an estimated 35,000 to 40,000 books are distributed statewide annually. The website for H.O.T. Jobs, which is located at www.texashotjobs.org, currently averages over 524,000 hits per month.

## Facing Rural Obstacles to healthcare Now Through Intervention, Education & Research (FRONTIER) Endeavors:

Focusing on continual research and studies, FRONTIER is currently doing one of its latest studies on "multimorbidity" research, which focuses on identifying clusters of diseases that occur together within the  FRONTIER cohort.  Identifying disease clusters more closely reflects the real world health experiences of people. By identifying disease clusters, studies can then start to make predictions on when changes in cognitive and functional abilities will start occurring and when windows of opportunity for disease reversal may start to close. With regard to faculty grants, FRONTIER continues to work with TTUHSC/TTU faculty on grant applications to the National Institutes of Health (NIH) and other agencies.

Two projects include:

- Epigenetic of Pediatric Obesity-Unraveling Genetic Markers with staff in the TTU Political Science Department;
- The Role of Haptoglobin in Type 2 Diabetes Mellitus (T2DM) Development with staff in the TTU Environmental Toxicology Department.
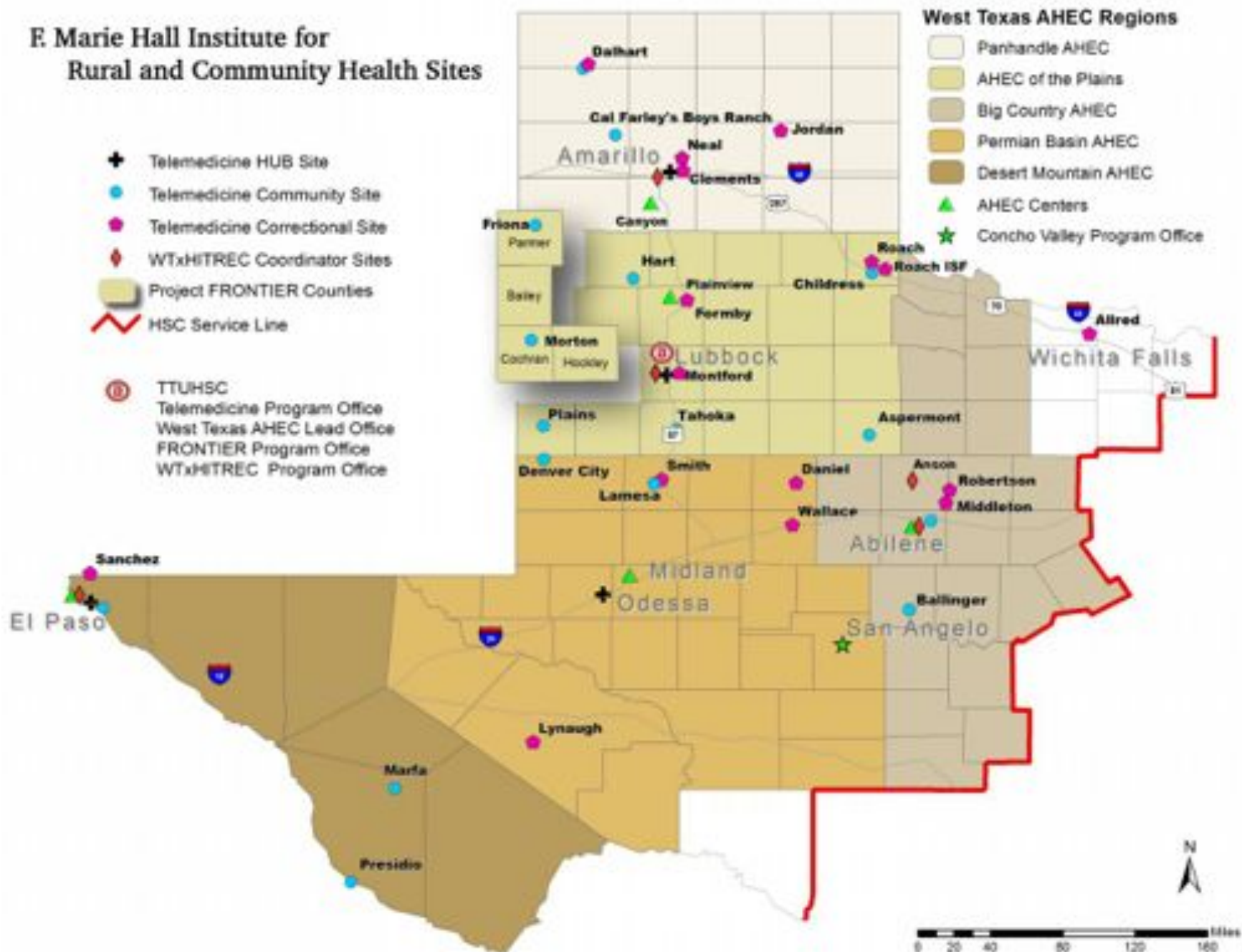
Collaboration for grant project applications in research are continual, with submissions to the Patient-Centered Outcomes Research Institute (PCORI), the Office of Victims of Crime (OVC) through the Criminal Justice Division of the State of Texas Governor's Office, continued funding for the Criminal Justice Division of the State of Texas Governor's Office for the TWITR project , and current studies in preparation of an application to NIH to fund arsenic research and to seek additional funding for Project FRONTIER.
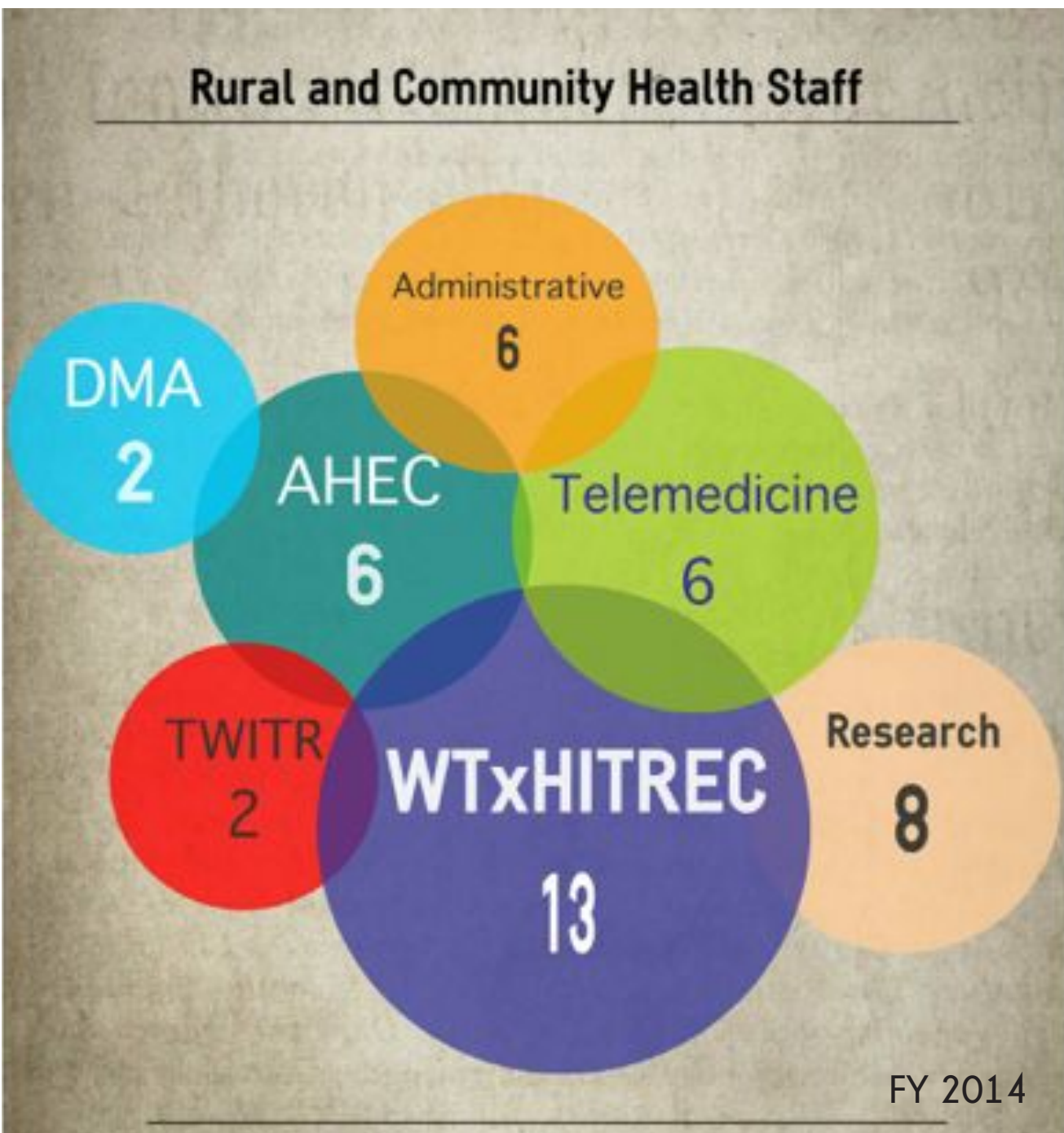
## School of Public Health:

Based on a study showing the needs of public health training for the Public Health workforce, development of accrediting and implementing a School of Public Health began at the TTUHSC in 2013. The need for public health training was a catalyst in the Institute's involvement in this endeavor. Dr. Billy Philips, the Director of the Institute has served as the founding Director of the Master of Public Health (MPH) that resides in the Graduate School of Biomedical Sciences at TTUHSC. Dr. Theresa Byrd, a prominent public health educator, joined the TTUHSC in Lubbock to serve as the new Assistant Dean for Public Health in the Graduate School of Biomedical Sciences and Chair of the Department of Public Health. The idea of more public health training at the TTUHSC began with guidance from Texas Tech University's Chancellor David Smith and Dr. Patti Patterson. The Institute was able to help get it started from dream to reality with the help and support of Dr. Tedd Mitchell, President of the TTUHSC, and Chancellor Robert Duncan, who have made the dream a reality. The Institute had the initial direction with prospective students and faculty in mind and was instrumental in helping with development, lending the help of Ms. Beverly Bowen to coordinate efforts. The inaugural class of the Master of Public Health at TTUHSC began in August of 2014, and as classes continue a new School of Public Health in Abilene, Texas, will begin through help from a substantial endowment gift. The school will be co-located on the Abilene and Lubbock campus sites and offered to other Texas Tech University System (TTUS) campus sites across the region.  This optimally meets local needs while educating students and providing practical training to prepare them to serve the growing needs of frontier Texas. The diversity of the region and population needs, along with the expanse of frontier counties, makes a unique environment for a new model of public health practice and education built on new technologies; creative and imaginative approaches that can invigorate the field.

## 2014 Building Bridges and Spanning Boundaries Award:

The Association of American Medical Colleges (AAMC) awarded a collaborative research project between TWITR and the TTUHSC Department of Psychiatry to track students who were served by the TWITR project. This research project aims to identify assessed ado¬lescents in terms of demographic and baseline clinical data by conducting a chart review. Outcome measures contain academic grades, truancy reports, and disciplinary referrals. With success of the initial study, gathering data for academic outcomes from participating schools is critical; comparison of these variables is instrumental in evaluating effectiveness of psychiatric interventions. Demographic and clinical variables will be included to describe the overall population characteristics and understand their impact on psychiatric outcomes. Community impact includes receipt of services in short supply, available immediate triage and diversion of possible crisis, and improved care for children with mental health needs.

# F. Marie Hall Institute for Rural and Community Health Sites

**West Texas AHEC Regions**
- Panhandle AHEC
- AHEC of the Plains
- Big Country AHEC
- Permian Basin AHEC
- Desert Mountain AHEC
- ▲ AHEC Centers
- ☆ Concho Valley Program Office

**Legend:**
- ✚ Telemedicine HUB Site
- ● Telemedicine Community Site
- ⬟ Telemedicine Correctional Site
- ⬥ WTxHITREC Coordinator Sites
- Project FRONTIER Counties
- 〰 HSC Service Line
- Ⓓ TTUHSC
  Telemedicine Program Office
  West Texas AHEC Lead Office
  FRONTIER Program Office
  WTxHITREC Program Office

Dalhart, Cal Farley's Boys Ranch, Jordan, Amarillo, Neal, Clements, Canyon, Friona, Parmer, Hart, Bailey, Plainview, Childress, Roach, Roach ISF, Formby, Morton, Cochran, Hockley, Lubbock, Montford, Allred, Wichita Falls, Plains, Tahoka, Aspermont, Smith, Denver City, Daniel, Anson, Robertson, Lamesa, Wallace, Middleton, Abilene, Sanchez, Midland, Odessa, Ballinger, San Angelo, El Paso, Lynaugh, Marfa, Presidio

# WEST TEXAS
# AHEC

Texas Tech University Health Sciences Center

The West Texas Area Health Education Center (AHEC) Program and its five regional offices serve as the TTUHSC's outreach arm to engage communities in assessing their health care needs and to coordinate the pipeline of the health care workforce for the region. The West Texas AHEC Program works to reduce health service disparities, health care provider shortages, and barriers to healthcare access in Texas through regional, need-based health professions workforce development. The West Texas AHEC Program:

- Expands community-based opportunities to increase health professions training capacity;
- Provides community-based clinical training for health professions students;
- Provides practice entry support;
- Introduces youth and their families to health careers;
- Supports placement and retention of health professionals in high need areas.

The Program serves a 105-county region through five centers located in Canyon, Plainview, Midland, Abilene, and El Paso, along with a satellite office in San Angelo.

This collaborative program focuses on establishing community-based needs for health information and point-of-care coordination, along with working with students to identify potential health careers and to facilitate students' exploration, preparation, and entry into healthcare training programs. In addition, AHEC facilitates a comprehensive longitudinal pipeline of activities to support future health care workforce development as well as existing rural health providers in West Texas by supporting rural clinical training for students who are in health professions; providing practice support to existing health care professionals; and promoting healthy living. Additionally, it is the only institutional program at the TTUHSC to maintain constant working relationships with more than 800 community-based organizations, including communities, K-12 schools, other higher education institutions, local hospitals, healthcare providers, and civic and economic development entities.

## COMMUNITY-BASED STUDENT EDUCATION:

The West Texas AHEC program has leveraged the above funds to support community-based student education in the region, through:
- Preceptor-based training in the community;
- Student-run free clinics in Lubbock and El Paso;
- Education equipment support.

**Value of the AHEC Community-Based Training**

FY 2014

Value of Donated Clinical Training to Texas Tech University Health Sciences Center
**$7,801,330**

Economic Value of Student Rotations to Local Communities
**$1,409,238**

Value of Donated Clinical Training to other Universities
**$1,174,283**

{ TOTAL IMPACT }
**$10,453,021**

Housing Support for Students
**$68,170**

## ECONOMIC IMPACT:

- Donated housing calculated on basis of working days students spent in the local community, multiplied by standard state lodging per diem rate ($85).
- Economic value of student rotations based off a formula developed by the Florida AHEC and modified to reflect salaries in Texas.
- Donated clinical training in community-based education sites calculated based off a weighted hourly rate derived from analysis of two reports. The first report provided student information and was aggregated with a similar report listing the preceptors' information and discipline per rotation.

## LONGITUDINAL IMPACT:

Students who experienced community-based rotations from West Texas AHEC are 2.89 times more likely to go into rural practices upon completion of training programs.

## HEALTH CAREERS PREPARATION AND PROMOTION (HCPP):

- Managed 25 structured longitudinal (>10 hours) programs that 964 students participated in, of which 85% were from an under-served background.
- Provided health careers presentations and programming to over 52,000 high school students throughout the 131,000 sq. mile region.
- Facilitated the Texas H.O.T. Jobs resource platform in English and Spanish; the only comprehensive resource guide about healthcare opportunities for career seekers in Texas (www.texashotjobs.org). The website averages over 658,000 hits per month.

## COMMUNITY HEALTH EDUCATION:

- Maintained partnerships with more than 800 community-based organizations.
- Provided Continuing Education to 6,320 healthcare professionals.

## ACCOMPLISHMENTS:

In 2013, the West Texas AHEC added a coordinator based in San Angelo to help facilitate programming in the Concho Valley region. The addition of this staff member resulted in:

- More than tripling the number of students exposed to health care in the region.
- An increase of 10,000 students gaining exposure to health careers in the Midland, Odessa, Abilene, and San Angelo areas.
- A structured training program for high school students developed in the San Angelo area along with an engaging and educational summer camp program.

## LOOKING AHEAD TO 2015:

AHEC is in a unique position to be a keystone resource in the changing landscape of healthcare in West Texas and the State as a whole, the programming, services, and reach of the West Texas AHEC Program have grown significantly over its twelve years of existence and will continue to grow through:

*Community Health Worker (CHW) Training*
The West Texas AHEC is recognized as a Community Health Worker Training site, training versatile healthcare providers and impacting reduction cost of healthcare, as CHWs work with patients and communities to provide new transition of care coordination, community case management services, and education services required by the Patient Protection and Affordable Care Act.

*Mental Health First Aid Training*
With a need in the community for behavioral health services, the AHEC Program has coordinated mental health trainings for individuals working with veterans and can help facilitate training in schools, communities, and other settings to raise awareness and offer a first response to those with mental health needs.

*Crossroads Conference 2015*
In collaboration with the TTUHSC's F. Marie Hall Institute for Rural and Community Health, the West Texas AHEC will sponsor the Crossroads Conference in 2015. This annual conference brings together health care professionals and community leaders from across West Texas to learn and network. With the continual transformation of health care, this conference strives to provide updates for current concerns in West Texas as well as national concerns for our rural communities and providers in healthcare.

*Rural Health Information Technology (HIT) Workforce Grant*
The Rural HIT Workforce Program was funded in 2013 by the Health Resources and Services Administration (HRSA) and offers an opportunity for training and tuition assistance for at least 120 people within 76 counties of the West Texas region, as well as supported training for hands-on experience with Electronic Health Records (EHR) technology. Through collaboration of West Texas Area Health Education Center (AHEC) of the Plains (one of the West Texas AHEC centers), the West Texas Health Information Technology Regional Extension Center (WTxHITREC), and Midland College, healthcare employees or students interested in becoming EHR certified can enroll in two new tracks offered online to prepare for EHR Certifications. Coinciding apprenticeship training will be implemented and supported by the WTxHITREC, working closely with providers to support the students. The program concept goal combines career development and provider needs in rural West Texas through recruitment, education, certified training, apprenticeship, and employment in the rural workforce.

Together, specialists, hospitals, and primary care providers (PCPs) are challenged to be meaningful users of health information technology (HIT) to deliver better quality of care. These organizations' ability to implement a certified electronic health record (EHR) affects the quality of care in communities throughout the West Texas area (a vast rural area consisting of 131,459 square miles with approximately 50 percent of the 108 counties designated as frontier counties), which directly impacts patient care through improved access to health information. The West Texas Health Information Technology Regional Extension Center (WTxHITREC) has established itself as a trusted advisor to assist these health care providers and hospitals in modernizing their organizations with the use of certified EHRs.

Through innovation and determination, the WTxHITREC provides consulting services to support health care providers and hospitals with HIT adoption and practice management solutions to improve quality of care. Through its work in assisting providers and hospitals in implementing certified EHRs, the WTxHITREC has recognized and developed the following HIT services and practice management solutions to address the needs of these organizations:
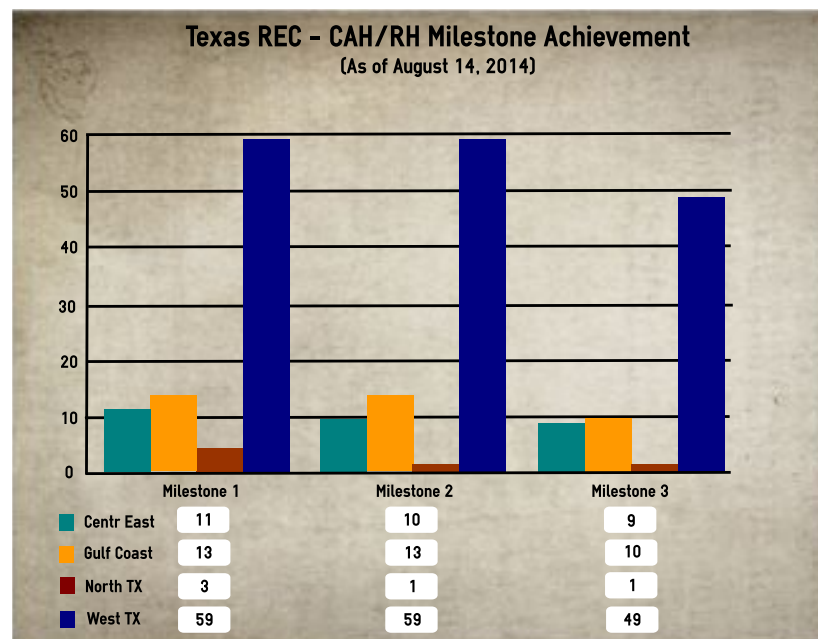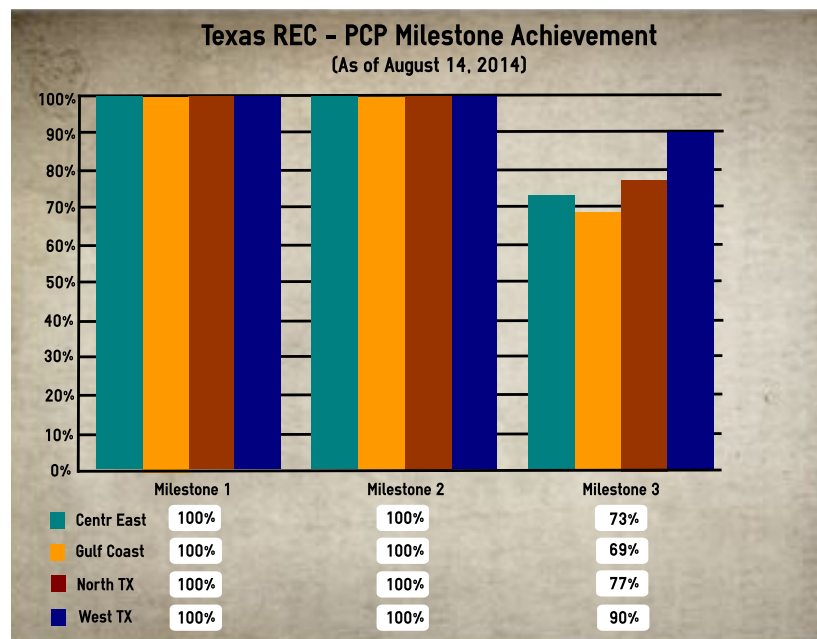
- Supporting specialists, hospitals, and PCPs with EHR adoption, implementation (and expansion or replacing of current EHRs), pre and post payment audit support to successfully achieve meaningful use, access additional financial incentives, and enhance quality health care services;
- Assisting specialists, hospitals, and PCPs in connecting to available health information exchanges (HIEs), and providing guidance and support related to interoperability and interface connectivity;
- Providing a broad range of services to specialists, hospitals, and PCPs, which include project management assistance, practice workflow redesign support, privacy and security best practices education, accountable care organization (ACO) education and support, patient-centered medical home (PCMH) education and support, ICD-10 transformation support, clinical quality coaching, and Telemedicine/Telehealth medical services support.

## 2014 AT A GLANCE:

According to a recent survey conducted by the Healthcare Information and Management Systems Society (HIMSS) in April 2014, by all accounts, the Regional Extension Center (REC) program has been extremely successful to date. Over 147,000 providers are currently enrolled with a REC. Of these, more than 124,000 are now live on an EHR and more than 70,000 have demonstrated meaningful use. Additionally, 872 Critical Access Hospitals/Rural Hospitals (CAHs/RHs) have been paid for achieving meaningful use.

Based on the success of the WTxHITREC and RECs across the country, the WTxHITREC continues to move forward by implementing multiple strategies to focus on growth and sustainability. At the end of 2013, the Office of National Coordinator (ONC) for HIT announced the availability of a no cost extension to extend the ONC federal grant supporting the RECs for an additional year. The WTxHITREC, along with approximately three-quarters (72 percent) of ONC funded RECs, applied for a no-cost extension through the ONC; the WTxHITREC was subsequently awarded an additional year to continue operating under the grant. This opportunity has allowed the WTxHITREC to continue serving PCPs and CAHs/RHs in West Texas to provide EHR adoption and implementation support services. As demonstrated in the graphs below, the WTxHITREC has reached 100 percent of its enrollment target of PCPs (milestone 1), with 100 percent of enrollees implementing an EHR (milestone 2) as compared to 85 percent of REC members nationally, and 90 percent demonstrating meaningful use of an EHR (milestone 3) as compared to 48 percent of REC members nationally. Additionally, the WTxHITREC has enrolled 59 CAHs/RHs, with 59 enrollees implementing an EHR and 49 demonstrating meaningful use of an EHR.

### Texas REC – PCP Milestone Achievement (As of August 14, 2014)

| | Milestone 1 | Milestone 2 | Milestone 3 |
|---|---|---|---|
| Centr East | 100% | 100% | 73% |
| Gulf Coast | 100% | 100% | 69% |
| North TX | 100% | 100% | 77% |
| West TX | 100% | 100% | 90% |

### Texas REC – CAH/RH Milestone Achievement (As of August 14, 2014)

| | Milestone 1 | Milestone 2 | Milestone 3 |
|---|---|---|---|
| Centr East | 11 | 10 | 9 |
| Gulf Coast | 13 | 13 | 10 |
| North TX | 3 | 1 | 1 |
| West TX | 59 | 59 | 49 |

Executives polled in the April 2014 HIMSS survey indicated that financial considerations, such as a demand for capital and healthcare reform were the two business issues most likely to impact the business operations of RECs going forward. In order to address these issues and move towards sustainability beyond the grant funding period, two prevalent programs are now provided by the WTxHITREC, including the Health Care Organization (HCO) service line agreement and the Medicaid Physician Specialist (MPS) program to serve as strong contributors to the overall sustainability plan.  The HCO service line agreement allows health care organizations to receive expanded consulting services from the WTxHITREC.  The MPS program is federally funded through the Health and Human Services Commission (HHSC) to support eligible specialists who serve a Medicaid population of 30% or greater, in selecting, implementing, and achieving meaningful use of certified EHRs.  As demonstrated in the table below, the WTxHITREC has seen great success in enrolling and serving specialists, hospitals, and PCPs under these programs.

| HCO Enrollment (As of August 14, 2014) | | MPS Enrollment (As of August 14, 2014) | |
|---|---|---|---|
| Organizations | Providers | Organizations | Providers |
| 74 | 151 | 11 | 40 |

## ACCOMPLISHMENTS:

As demonstrated in the graphs above, in surpassing 85% meaningful use achievement for enrolled PCPs, the WTxHITREC has reached beyond expectations under the ONC grant for a successful REC program.  This success has secured the WTxHITREC as a trusted advisor to health care organizations in West Texas, which has allowed the WTxHITREC to position itself as the principal organization to lead HIT developments and other EHR related projects in West Texas as evidenced by the following accomplishments realized by the WTxHITREC in 2014:

- Participated with the HHSC under the MPS program to help recruit eligible specialists in West Texas and provide EHR adoption and implementation support;
- Worked with HHSC and Texas Health Services Authority (THSA) to organize stakeholder meetings in the White Space (a designated area of West Texas not currently served by a local community-based HIE), to 1) identify an appropriate HIE solution(s) for the White Space region; 2) plan and implement a HIE governance strategy for the identified HIE solution(s); and 3) identify options for the technical architecture that may be used by the HIE(s);
- Assisted Area Health Education Center (AHEC) of the Plains and Midland College in the 1) recruitment; 2) mentorship and apprenticeship; and 3) coursework assistance to students of the Rural HIT Workforce Program;
- Collaborated with the TexLa Telehealth Resource Center to provide marketing, outreach, and support to promote Telemedicine/Telehealth medical services to the health care community in Texas and Louisiana;
- Expanded consulting service offerings and increased staff development to provide practice management solutions requested by health organizations in West Texas;

- Developed an agreement with the North Texas Regional Extension Center (NTREC) to provide HIT technical assistance to NTREC affiliated providers;
- Selected by HHSC to conduct a statewide survey targeting providers and hospitals to gauge barriers faced in implementing EHRs; and
- Formation of grant writing development team to pursue additional funding opportunities.

## LOOKING AHEAD TO 2015:

The vision of the WTxHITREC is to continue to operate as a fully engaged trusted advisor to specialists, hospitals, PCPs, and other stakeholders. To accomplish this, the WTxHITREC will provide consulting services to support these organizations in adopting health care initiatives to improve patient safety, quality, and population health outcomes. Going forward, the WTxHITREC plans to focus on the following activities:

- Continued support to specialists, providers and hospitals with EHR implementation and meaningful use achievement;
- Maintaining a technical and clinical support center staffed with various expertise;
- Developing new service lines to support the technologies, initiatives, and programs of the ever changing HIT landscape;
- Supporting regional migration to new payer models as they align with the National Quality Strategy including ACOs and PCMHs;
- Working with key stakeholders to ensure secure and accurate electronic exchange of health care information;
- Supporting the training of the next generation of HIT professionals necessary to continue this work; and
- Raising sufficient federal, community and provider revenue streams to sustain the WTxHITREC.

As the health care industry continues to develop HIT initiatives, there is no doubt that specialists, hospitals, PCPs and other stakeholders will face difficulty in keeping up with the demands of the market and maintaining compliance with government regulations. However, the WTxHITREC is fully engaged as a trusted advisor to these health care organizations and stands ready to provide support to assist these organizations in their goal to deliver better quality of care.

# TELEMEDICINE
## TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER

One of the greatest challenges within health care in rural and urban communities is how to provide quality care to an increasing number of underserved, disadvantaged, and at risk populations. Access to care can be affected by several factors that include economic, geographic, proximity to a provider, and the overall supply of providers.

The Telemedicine program at the TTUHSC, developed in 1990, integrates services to bring innovative solutions to the broad spectrum of health-related challenges across West Texas by using technology to overcome access barriers related to distance to provide quality patient care that meets the local needs of rural and urban communities.

Currently, of the 108 counties in the TTUHSC Service Region, 22 have no practicing physician and 12 have no physician, nurse practitioner, or physician's assistant. Many patients have to travel at least 90 miles one way for primary care coverage. Outside the seven urban centers – Lubbock, Amarillo, Midland/Odessa, El Paso, Wichita Falls, San Angelo, and Abilene – there are few, if any, specialty providers. That is where telemedicine helps. Through videoconferencing technology, patients can be connected with health care providers hundreds of miles away.

Telemedicine continues to expand its endeavors in West Texas to address one of the TTUHSC's priorities: to provide patient care in innovative ways that reduce distance and isolation. Telemedicine's patient service arenas include:
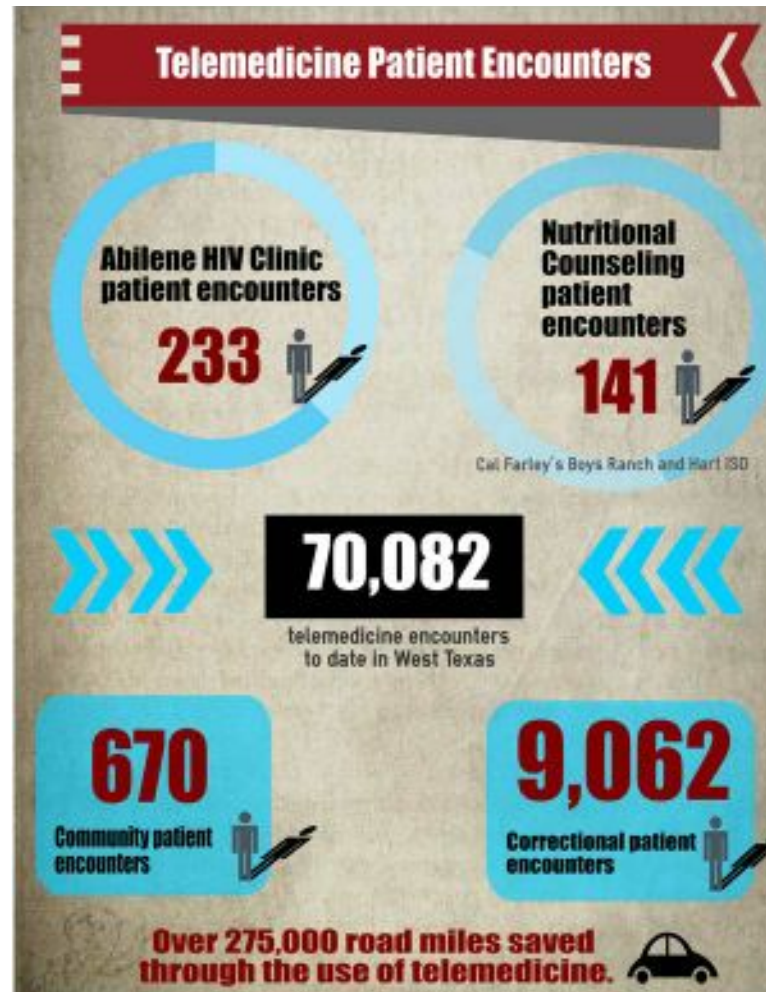
- Rural Telemedicine
- Correctional Telemedicine
- Mental Health Services
- Adolescent Diabetes Studies
- HIV Services in Abilene
- Telehealth Resource Center – servicing Texas and Louisiana

## ACCOMPLISHMENTS:

- The TexLa Telehealth Resource Center conducted nine "Telemedicine 101" courses throughout Texas to 91 attendees.
- In June 2014 the TexLa Telehealth Resource Center hosted the First Annual Telehealth Summit with 125 attendees.
- Debbie Voyles was asked to give the Key Note Address as the World Congress on Telemedicine Conference in December 2013.
- The Telemedicine staff was asked to present on Telemedicine related topics at five conferences.
- The Telemedicine program presented an ePoster on "Healthcare Within Walls: Telemedicine in Corrections" at the American Telemedicine Association Annual Conference in May 2014.

## 2014 AT A GLANCE:

- Two new Telemedicine sites were added to the network: Ballinger and Lamesa
- Twenty-five of the 40 potential patients were added to the Verizon Foundation Pediatric Type I Diabetes Study.
- 1,200 clients received assistance from the TexLa Telehealth Resource Center
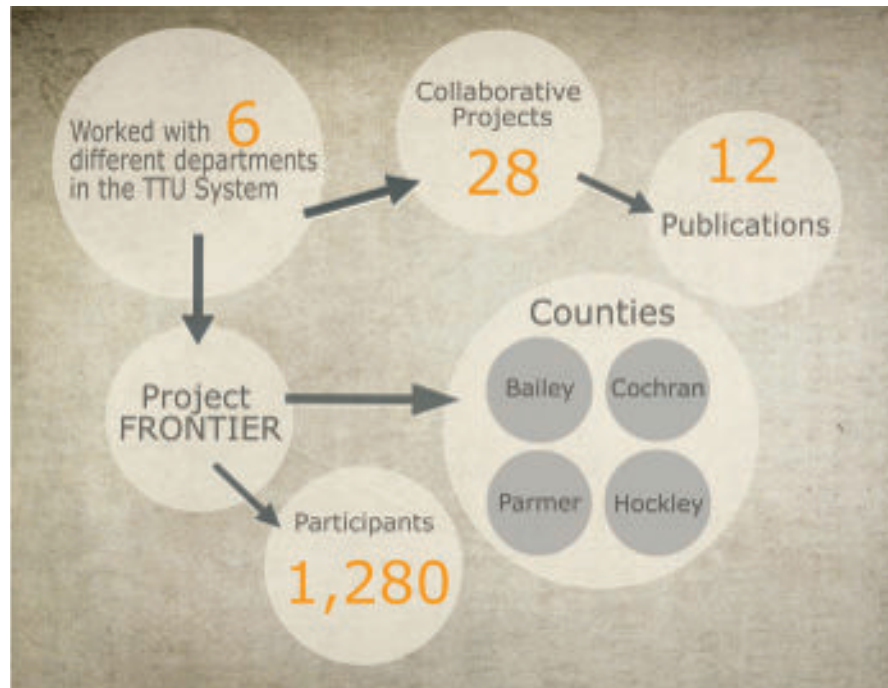


## LOOKING AHEAD TO 2015:

Telemedicine has been included in two Patient-Centered Outcome Research Institute (PCORI) grants, one with a Mental Health Focus and one as a TeleStroke project. We anticipate over 700 community patient encounters and 10,000 correctional patient encounters in FY15.

Texas Tech University Health Sciences Center

The size, scope, and diversity of West Texas demands research that is both innovative and adaptive. The charge of the FMHIRCH's Rural Health Research Group (Research Group) is to promote and conduct the kind of scholarly work that meets this demand. Such work would be impossible without a strong commitment to collaboration and a focus on understanding the needs of the community being served. Therefore, the Research Group has established a tradition of instilling Community-Based Participatory Research (CBPR) principles into its studies.

One of the Research Group's primary features is a dedication to the advancement of important and interdisciplinary research topics. The Research Group and its partners are currently exploring topics spanning from depression to disease processes of aging and their effects on cognition to the effects of environmental toxins such as arsenic on health and disease processes. This wide range of research is enabled by having diverse funding sources. Since its inception, the Research Group has received national, state, and local funding from government, academic, and non-profit sources. Past work has included the National Institutes of Health (NIH)-funded West Texas Excellence in Partnerships for Community Outreach, Research, and Training (EXPORT) Center and a community-level pandemic flu readiness assessment funded by the Texas Department of State Health Services.

**2014 AT A GLANCE:**

## ACCOMPLISHMENTS:

Academic year 2013-2014 has been an exciting time for the Research Group.  On April 1st Matthew E. Lambert, Ph.D. joined the Institute as Senior Director for Rural Health Research and Principal Investigator for Project FRONTIER.  He is working to give the Research Group direction and renewed vigor.  Grant submissions were also made to the National Institutes of Health, CH Foundation, and South Plains Foundation.  The Research Group was also able to expand its interprofessional collaboration with TTU departments of Biology and Political Science, and TTUHSC Pathology. Expansion of data collection into Hockley County in Texas has also helped to expand the diversity of the Project FRONTIER cohort.  The Research Group has also been chosen to now host the Telemedicine Wellness, Intervention, Triage and Referral (TWITR) Project, a project designed to identify middle and high school aged youth with mental health problems and get them involved in treatment through telemedicine.  As well, a combination of the Research Group and faculty from TTUHSC Psychiatry and TTU Psychology have come together to develop a grant for providing tele-mental health services in two rural West Texas Counties.

Other accomplishments of the Research Group include continued work on:

- Exploring factors affecting the aging process;
- Topics related to obstructive sleep apnea, diabetes and the metabolic syndrome, multimorbidity, and alcohol use on cognitive functioning;
- Health effects of groundwater arsenic exposure in rural communities;
- Student education - with four medical students presenting research posters during Student Research Week in March; two medical students included in research activities over the summer, and seven undergraduate students from TTU gaining exposure in the research lab.

## LOOKING AHEAD TO 2015:

Going into the Fall 2014 and then 2015, the Research Group will continue with the ongoing TWITR Project as well as continue to prepare materials for a tele-mental health grant to be submitted to the Patient-Centered Outcome Research Institute (PCORI).  The results of a grant application to provide tele-mental health services to several Children's Advocacy Centers across Texas will be discussed, with possible preparation to deliver those services if funding is available.  Other grant considerations will be at the NIH level with goals of increasing funding for Project FRONTIER and further research into the effects of sleep apnea.

The Research Group will continue its research related to the multiple factors affecting aging, cognition, and functional abilities, along with examining environmental factors affecting health that have a direct impact on the health of our rural citizens.  Additionally, interprofessional research with departments across the TTU System will continue. Particular interest has been shown by TTUHSC Department of Pathology Staff to explore factors affecting musculoskeletal health in the Project FRONTIER cohort.  As we move forward, there will be emphasis on including more students in the Research Group's activities as we work to develop the next generation of researchers.

The Telemedicine Wellness, Intervention, Triage and Referral Project (TWITR) is a unique demonstration project developed in 2013 that was created to help bridge a gap in mental health services in West Texas. TWITR, an initiative funded by the State of Texas Office of the Governor's Criminal Justice Department, promotes school safety by providing psychiatric assessment and referral services to students struggling with behavioral and mental health issues who are imminently dangerous to themselves or others.

In 2013, the TWITR Project and Department of Telemedicine within the FMHIRCH at TTUHSC partnered with the Department of Psychiatry at the TTUHSC, implementing a more effective way to help identify, assess, and address needs of adolescents in West Texas through mental health intervention. Partnership goals include: providing school-based psychiatric interventions; improving academic performance in children and adolescents struggling with mental illness; improving TTUHSC services; and impacting the communities served by these interventions.
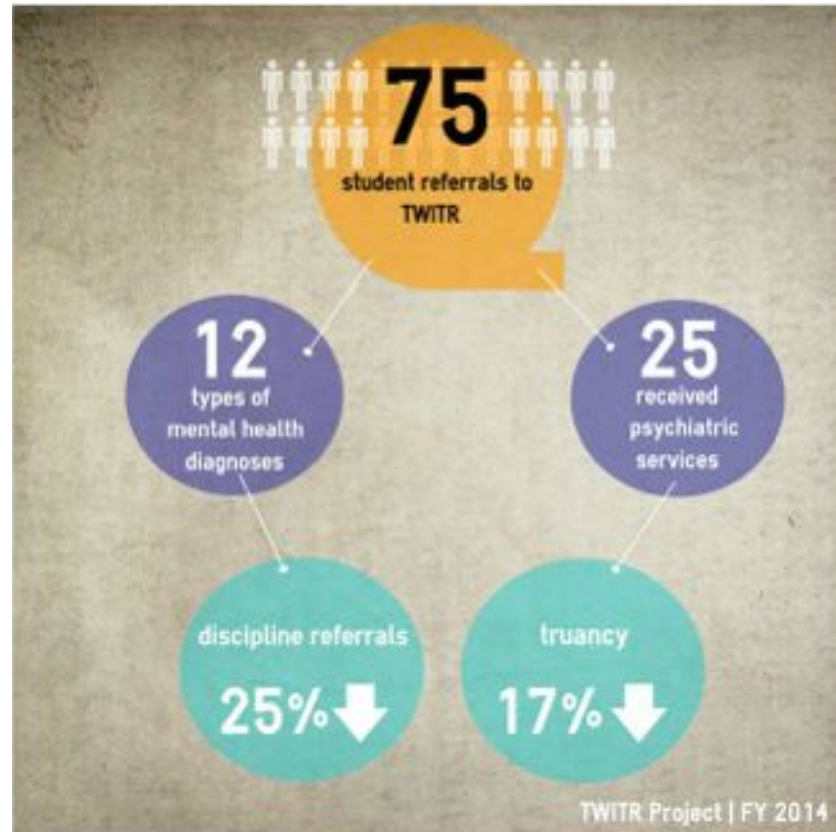
The TWITR Project covers a geographic area within Lubbock County and into the surrounding counties of Hale, Lamb, Hockley, Terry, Lynn, Garza, Crosby, and Floyd. The TWITR Project is collaborating with six to nine Independent School Districts (ISDs) measuring the impact of a tele-health link between early high school and middle school students deemed at-risk for mental health issues.

The TWITR Project focuses on the following:

- Recruitment of credentialed mental health providers;
- Training for ISD faculty and staff in the identification of symptoms or behaviors that may be the result of a mental health disorder;
- Effective classroom interventions and protocol for mental health crises will also be provided for participating schools;
- Support and website development for SB460 training;
- Setting up a collaborative network of community mental health resources, medical professionals, and school staff;
- Providing credentialed mental health professionals to be liaisons among the Independent School District (ISD) faculty and staff, the at-risk youth, and appropriate referral entities via face-to-face interactions and telemedicine links;
- Establishing telemedicine links between each ISD and a child psychiatrist specializing in youth at risk for becoming a threat to themselves or others;
- Ensuring continuity of care for referred students by staffing with the Texas Tech University Health Sciences Center (TTUHSC) Department of Psychiatry (DoP) prior to telemedicine encounters and following completion of encounters in the school setting by continuing psychiatric services in the TTUHSC DoP clinic;

- Reducing the number of discipline referrals and truancy for identified students and track academic performance before and after intervention;
- Tracking of students already assessed through a collaborative study with the Department of Psychiatry, funded by the 2014 Building Bridges Award through Association of American Medical Colleges.

**2014 AT A GLANCE:**



**ACCOMPLISHMENTS:**

The endeavors of the TWITR Project in FY14 resulted in the following:
- Trained teachers, counselors, and administrators from eight school districts in the TWITR model and how to access services.
- 25 percent reduction in school-related discipline incidents in the ISDs receiving services from TWITR.
- Increased overall grade point averages for students receiving TWITR services.
- Development of a program, "Mental Health and Education", for statewide teacher education and it was accepted as meeting the mandate of Texas SB460.
- Provision of basic mental health awareness training to over 1,200 teachers that would impact an estimated 83,000 students.
- Participation in the development and roll-out of the SB460TRAINING.ORG website designed to provide the SB460 mandated teacher training and provide teacher, parent, and individual resources about mental health problems.

## LOOKING AHEAD TO 2015:

*2014 Building Bridges and Spanning Boundaries Award*

The Association of American Medical Colleges (AAMC) awarded a collaborative research project between TWITR and the TTUHSC Department of Psychiatry to track students who were served by the TWITR project. This research project aims to identify assessed adolescents in terms of demographic and baseline clinical data by conducting a chart review. Outcome measures contain academic grades, truancy reports, and disciplinary referrals. With success of the initial study, gathering data for academic outcomes from participating schools is critical; comparison of these variables is instrumental in evaluating effectiveness of psychiatric interventions. Demographic and clinical variables will be included to describe the overall population characteristics and understand their impact on psychiatric outcomes. Community impact includes receipt of services in short supply, available immediate triage and diversion of possible crisis, and improved care for children with mental health needs.

## 2014 CROSSROADS CONFERENCE:

The 2014 Crossroads Conference: Navigating Health Care in West Texas, held June 4-5, had over 150 attendees and brought together health care professionals and community leaders from across West Texas to learn and network. Presentations covered the ICD 10, navigating the system, rural health care research, gateway to health careers, health information technology workforce, telemedicine, rural mental health and breast cancer navigation, among others.



Feature presenters included:
- Susan Fenton, Ph.D., MBA, University of Texas Health Science Center at Houston;
- Mickey Schaefer, Ph.D., CFO, Sutton County Hospital District;
- Beverly Nixon-Lewis, D.O., regional chief medical information officer, TTUHSC School of Medicine at Amarillo;
- Holly Jeffreys, DNP, FNP-BC, Family Care Clinic of Panhandle;
- Jennifer Campos, R.N., Texas Oncology Breast Specialists;
- Kathy Chauncey, Ph.D., R.D., West Texas Cancer Survivors Network;
- Mike Gilliam Jr., MSW, MPH, Texas Department of State Health Services;
- Russell Lowrey-Hart, Ph.D., Amarillo College; and
- Carolyn Witherspoon, BSN, R.N., Coalition of Health Services.

## TEXLA TELEHEALTH SUMMIT:

The TexLa TRC hosted its first Telehealth Summit "Assistance from a Distance" June 23-25 in Galveston, TX. It was an, information-packed event with 101 registered attendees and 21 exhibitors.



Feature presentations included:
- Building a Statewide Telehealth Network - Paula Guy, Chief Executive Officer, Georgia Partnership for Telehealth
- Opportunities for Interstate Telehealth Collaboration - Dale Alverson, M.D., Medical Director, University of New Mexico Health Sciences Center Center for Telehealth & Cybermedicine Research
- Behavioral Health, Telestroke and Innovative Projects Panel – Avrim Fishkind, M.D., Ken Hopper, M.D., Terra Hamblin, Liz Cothren, M.S.N., R.N.; Teddy Wu, M.D.; Margaret Tremwel, M.D.; Kim Dunn, M.D.; Chip Shaw, M.Ed.; and Tina Benton, R.N., B.S.N.
- Remembering Why - Randolph Mantooth, Actor/Speaker/Writer
- Technology and the Mission of TTAC - Garret Spargo, Director, National Telehealth Technology Assessment Resource Center
- Financing Telehealth: A National Perspective - Jonathan Neufeld, Ph.D., Clinical Director, Upper Midwest Telehealth Resource Center
- Telehealth Policy in Texas and Louisiana - Mario Gutierrez, Executive Director, Center for Connected Health Policy; Mari Robinson, J.D., Executive Director, Texas Medical Board; and Cecilia Mouton, M.D., Executive Director, Louisiana State Board of Medical Examiners

## ENDOWMENTS:

- The Marie Hall Chair in Rural Health: — $1,681,480
- Smith/Vela/Patterson Senior Fellowship for rural Health Research: — $ 485,885
- F. Marie Hall Institute for Rural and Community Health: — $5,928,448

**Total: $8,095,813**

## STATE APPROPRIATED LINE ITEM FUNDING:

*2014*

- Rural Health Care: — $ 776,845
- West Texas AHEC Program: — $2,000,000

**Total: $2,776,845**

## FISCAL YEAR 2013-2014 GRANT FUNDING:

*Funding*

- Area Health Education Centers (AHEC) Point of Service Maintenance and Enhancement - U77HP16497: — $ 508,350
    - U.S. Department of Health and Human Services: Health Resources and Services Administration (HRSA)
    - Principal Investigator: Billy Philips Jr., Ph.D., MPH
    - Funding Dates: September 1, 2013-August 31, 2014
    - Project Summary: To support the efforts of the West Texas AHEC program, focusing on educating students about future health care careers.

- Office of the National Coordinator for Health Information Technology (ONC) Regional Extension Centers: — $7,799,318
    - Principal Investigator: Billy Philips Jr., Ph.D., MPH
    - Funding Dates: April 6, 2009-April 5, 2014
    - Project Summary: To support the WTxHITREC in serving health care providers, helping them quickly become adept and meaningful users of electronic health records (EHRs).

*If all incentives are paid. Includes $1,260,000 as funding to assist rural critical access hospitals and rural hospitals, $4,165,000 as funding to assist primary care providers, and $2,374,318 as core funding.*

- Office of Rural and Community Affairs (ORCA) IT Network Implementation:                    $ 13,667
  - Principal Investigator:  Billy Philips Jr., Ph.D., MPH
  - Funding Dates:  September 1, 2013-August 31, 2014
  - Project Summary:  To implement connectivity with Friona and Wellington for Telemedicine operations.

- Verizon Foundation Children's Diabetes Monitoring Program:                    $ 50,000
  - Verizon Foundation
  - Principal Investigator:  Billy Philips Jr., Ph.D., MPH
  - Funding Dates:  September 1, 2012 – February 28, 2014
  - Project Summary:  To create a program which uses telemedicine to care for children who require ongoing review and treatment for diabetes management.

- Telehealth Resource Center Grant Program – G22RH24748:                    $ 324,998
  - U.S. Department of Health and Human Services: Health Resources and Services Administration (HRSA)
  - Principal Investigator:  Billy Philips Jr., Ph.D., MPH
  - Funding Dates:  September 1, 2013 – August 31, 2014
  - Project Summary:  To support the efforts of the TexLa Telehealth Resource Center which provides technical assistance and resources to new and existing telemedicine programs throughout Texas and Louisiana.

- Telemedicine Wellness Intervention Triage and Referral Project (TWITR) - SF-13-J20-27317-01:                    $ 486,046
  - State of Texas Office of the Governor's Criminal Justice Division
  - Principal Investigator:  Billy Philips Jr., Ph.D., MPH
  - Funding Dates:  July 1, 2013 – June 30, 2015
  - Project Summary:  A partnership with TTUHSC's Department of Psychiatry to implement a more effective way to help identify, assess, and address needs of adolescents in West Texas through mental health intervention and diversion of possible crisis situations.

- Sub-Contract: Rural Health Information Technology (HIT) Workforce Program (AHEC of the Plains):                    $ 52,489
  - Co-Principal Investigator:  Billy Philips Jr., Ph.D., MPH
  - Funding Dates:  September 1, 2013 – August 31, 2014
  - Project Summary:  A collaboration between AHEC of the Plains, the WTxHITREC, and Midland College to reduce disparity in the health information technology workforce through implementation of service-learning in order to support and increase sustainability in the advancement of healthcare technology.

**Total: $9,234,868**
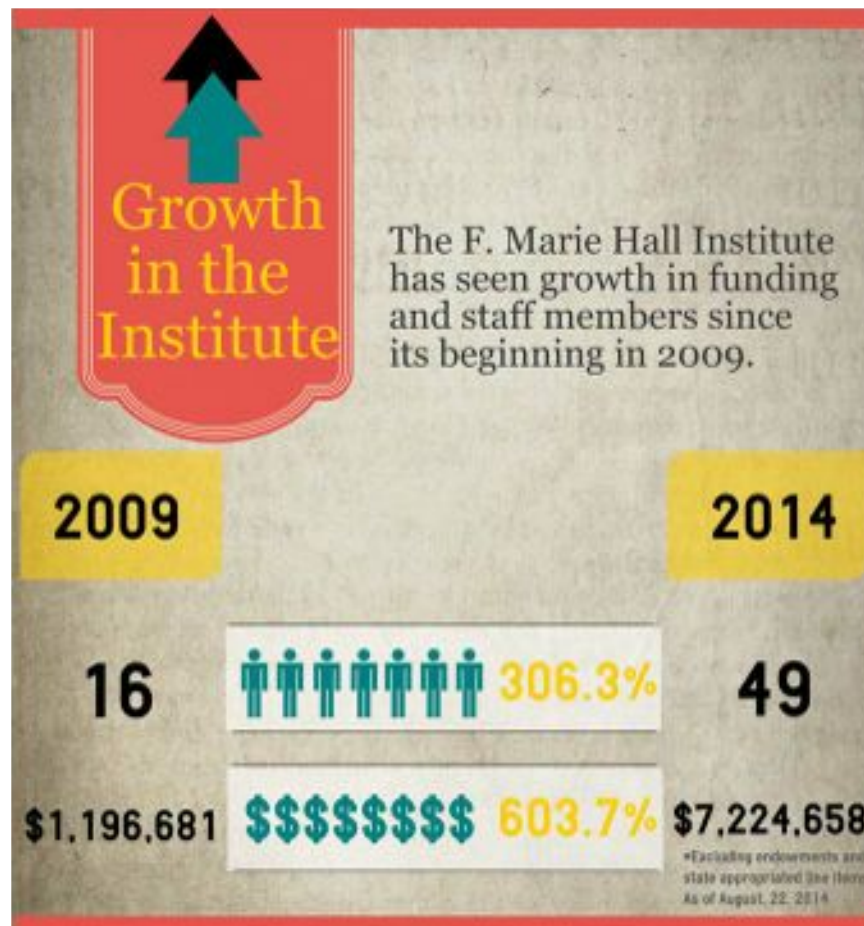
## OTHER FUNDING:

| | Funding |
|---|---|
| • School of Medicine: | $ 335,018 |
| • Correctional Managed Health Care: | $ 16,000 |
| • Garrison Center Telemedicine: | $ 15,000 |
| • Whitespace HIE Realignment | $ 137,563 |
| • Specialist Implementation: | $ 37,484 |
| • Texas State Medicaid Health Information Technology Plan: | $ 142,804 |
| • Community Telemedicine Equipment Rental: | $ 10,500 |
| | **Total: $ 694,369** |

*Grand Total:* $20,801,895



Growth in the Institute

The F. Marie Hall Institute has seen growth in funding and staff members since its beginning in 2009.

2009 — 2014

16 — 306.3% — 49

$1,196,681 — 603.7% — $7,224,658

*Excluding endowments and state appropriated line items. As of August 22, 2014

## INTERNSHIPS:

- Nicholas Wallace: University of Texas at Austin, Health Information Technology Program, WTxHITREC, February 2014
- McKenzie Pesnell: University of Texas at Austin, Health Information Technology Program, WTxHITREC, February 2014
- Andrew Gilman: University of Texas at Austin, Health Information Technology Program, WTxHITREC, July 2014
- William Pate II: University of Texas at Austin, Health Information Technology Program, WTxHITREC, July 2014
- Ryan Wiscombe: Texas Tech University Law School, Legal Intern, WTxHITREC, May – June 2014
- Amanda Schwertner: Texas Tech University Law School, Legal Intern, WTxHITREC, July – August 2014

## STUDENTS:

- Pablo Soto: April 2012-May 2014. Texas Tech University. General volunteer in Rural Health Lab: Project FRONTIER (data entry verification). Worked on a proposal for an individual study on sleep apnea.
- Lauren McDaniel: November 2012 – May 2014. Texas Tech University. General volunteer in Rural Health Lab: Project FRONTIER and EPA project (data entry).
- Carson Currens: October 2013 – May 2014. Texas Tech University. General volunteer in Rural Health Lab: Project FRONTIER (data entry).
- Miranda Crowsey: October 2013 - present. Texas Tech University. General volunteer in Rural Health Lab: Project FRONTIER (data entry).
- Shane Thomas: October 2013 – present. Texas Tech University. General volunteer in Rural Health Lab: Project FRONTIER (data entry).
- Joshia John: October 2013 – present. Texas Tech University. General volunteer in Rural Health Lab: Project FRONTIER (data entry).
- Christian Castro:  November 2013 - present. Texas Tech University. General volunteer in Rural Health Lab: Project FRONTIER (data entry).
- Ann Marie Kumfer: Texas Tech University School of Medicine. Worked on Does Alcohol Neuroprotection Work in Diabetes-Related Cognitive Decline?: A Project FRONTIER Study.
- Yuliya Belopolsky: Texas Tech University School of Medicine. Worked on Multimorbidity Effects on Cognitive Functioning: A Project FRONTIER Study.

## PUBLICATIONS:

1. Ashcraft, A. S. & Owen D.C. End-of-Life Planning in a Rural Elderly Cohort (Manuscript submitted for review).

2. Belasco, E., Gong, G., Pence, B., Wilkes, E.  The Impact of Rural Health Care Accessibility on Cancer-Related Behaviors and Outcomes. Applied Health Economics and Health Policy. (Under revision).

3. Edwards, M., Hall, J., Gong, G., O'Bryant S.E. Arsenic exposure, AS3MT polymorphism, and neuropsychological functioning among rural dwelling adults and elders: a cross-sectional study. Environmental Health 2014, 13:15.

4. Falkowski J., Atchison T., Debutte-Smith M., Weiner M.F., O'Bryant S. Executive Functioning and the Metabolic Syndrome: A Project FRONTIER Study. Arch Clin Neuropsychol. 2013 Oct 22. [Epub ahead of print].

5. Gamboa, A, & Lambert, M. E. Integrity of the RBANS ES in a multiethnic cohort: A Project FRONTIER study.  (Manuscript Submitted for Review).

6. Gong G., Basom, J., Mattevada S., Onger, F. Association of hypothyroidism with low-level arsenic exposure in rural West Texas. Submitted to Environ Res. (under review).

7. Gordon Gong, Janet Basom, Sravan Mattevada, Fred Onger. Association of hypothyroidism with low-level arsenic exposure in rural West Texas. Submitted to Environ Res. (under review).

8. Gong G., Mattevada S., O'Bryant S.E. Comparison of the accuracy of kriging and IDW interpolations in estimating groundwater arsenic concentrations in Texas. Environ Res. 2014; 130:59-69.

9. Jahn, D.R., Mauer, C.B., Menon, C.V., Edwards, M.L., Dressel, J.A., O'Bryant, S.E.  A brief Spanish-English equivalent version of the Boston Naming Test: a Project FRONTIER study.  J Clin Exp Neuropsychol. 2013 Oct; 35(8):835-45.

10. Lambert, M.E., Biskamp, C., Gong, G. Commonalities in the Clinical Dementia Rating Scale and Geriatric Depression Scale: A Project FRONTIER Study. (Manuscript in preparation).

11. Lambert, M.E. Mental Health First Aid: Current Status. (Manuscript Submitted for Review).

12. Sovich, J., Lambert, M.E., Gong, G. English Language Proficiency and Chronic Disease in a Rural Hispanic Population: A Project FRONTIER Study (Manuscript submitted for review).

## PRESENTATIONS:

1. Alexander, T., Fernandez, V., Jones, B. (2014). Meaningful Use: Getting and Keeping Your Money! Presented at the Crossroads Conference, Lubbock, TX.

2. Alexander, T., Johnson, C. (2014). Health Insurance Portability & Accountability Act (HIPPA) Final Rule and Texas Medical Records Privacy Act (TMRPA) – The Effects on Business Associates, Business Associate Agreements, and Breach Notification Provisions. Webinar for TXRECS.org Educational Webinar Series.

3. Berry, L., Freeman, A., Lambert, M. (2014). Mental Health and Education. Teacher training for mental health and education presented at the Region 17 Education Service Center, Lubbock, TX.

4. Berry, L., Freeman, A., Lambert, M. (2014). Telemedicine Wellness, Intervention, Triage and Referral (TWITR) Project. Teacher training presented to Littlefield Independent School District (ISD), Littlefield, TX; Brownfield ISD, Brownfield, TX.

5. Cross-Gray, L. (2014). Patient Engagement & Satisfaction. Poster presented at the Crossroads Conference.

6. Cross-Gray, L. (2014). Physician Quality Reporting System. Webinar presented by the WTxHITREC.

7. Cukrowicz, K.C., Poindexter, E.K., Philips, B., Lambert, M.E., Gong, G., O'Bryant, S. & Hirsch, J.K. (2014, April 11). Assessing Suicide Risk in Rural Adults: Feasibility and Acceptability. Presentation given at the 47th Annual American Association of Suicidology Conference, Los Angeles, CA.

8. Edmunds, B. (2013). Integrating Telemedicine and the EHR. Webinar for the National Telehealth Webinar Series.

9. Edmunds, B. (2014). Integrating Telemedicine and the EHR. Webinar for the Texas Regional Extension Centers Webinar Series.

10. Edmunds, B. (2014). The Fundamentals of Project Management. Webinar for the Texas Regional Extension Centers Webinar Series.

11. Edmunds, B., Hanson, T. (2014). The National Strategy for Quality Improvement in Health Care: Maximizing Pay for Performance. Presented at the Accountable Care Organization (ACO) Summit: West, San Diego, CA.

12. Edmunds, B., Hanson, T. (2014). The National Strategy for Quality Improvement in Health Care. Presented at the Crossroads Conference, Lubbock, TX.

13. Edmunds, B. (2014). The State of Health Information Technology Regional Extension Centers and Health Information Exchange in West Texas. Presented at the Crossroads Conference, Lubbock, TX.

14. Evans, M., Miller, R. (2014). Mental Health and Education. Teacher training for mental health and education presented to Idalou ISD, Idalou, TX; Crosbyton ISD, Crosbyton, TX; Shallowater ISD, Shallowater, TX; Abernathy ISD, Abernathy, TX; Texas Education Agency, Austin, Texas;

15. Evans, M., Miller, R. (2014). Mental Health and Education. Teacher training for mental health and education presented for the Region 17 Education Service Center to school counselors, new teachers, at the School Nurses Conference, and the Special Education Conference, Lubbock, TX.

16. Evans, M., Miller, R. (2013). Telemedicine Wellness, Intervention, Triage and Referral (TWITR) Project. Teacher training presented to Lubbock ISD, Lubbock, TX; Hereford ISD, Hereford, TX; Plainview ISD, Plainview, TX; Texas Education Agency, Austin, TX.

17. Evans, M., Miller, R. (2014). Telemedicine Wellness, Intervention, Triage and Referral (TWITR) Project. Presented at the Crossroads Conference, Lubbock, TX.

18. Felton, C. (2014). Where are they Now, A Decade of Student Placements. Poster presented at the 2014 National Rural Health Association Annual Conference, Las Vegas, NV.

19. Jones, B. (2014). CQMs for MU and PQRS. Webinar presentation made for Texas Regional Extension Centers (TXRECs).

20. Jones, B. (2014). How to Avoid Medicare Payment Adjustments in 2015. Newsletter article for West Texas Health Information Regional Extension Center, Lubbock, TX.

21. Jones, B. (2014). Physician Quality Reporting System. Webinar presentation made for West Texas Health Information Regional Extension Center (WTxHITREC), Lubbock, TX.

22. Lambert, M.E. (2014). Presentation given at the Alzheimer's and Dementia Care Symposium, Covenant Medical Center, Lubbock, TX.

23. Lambert, M.E., Biskamp, C., Gong, G. (2014). Commonalities in the Clinical Dementia Rating Scale and Geriatric Depression Scale: A Project FRONTIER Study. Poster presented during the 2014 Student Research Week, Lubbock, TX.

24. Phillips, C. (2014). Mobile Devices in Healthcare. Presented to TXRECs.

25. Phillips, C. (2014). State 2 Workflow. Poster presented during the Crossroads Conference, Lubbock, TX.

26. Poindexter, E.K., Cukrowicz, K.C., Philips, B., Lambert, M.E., Gong, G., O'Bryant, S. & Hirsch, J.K. (2014). Suicide Ideation and Suicidal Behaviors Among Rural Adults: Frequency and Risk Factors. Presentation given at the 47th Annual American Association of Suicidology Conference, Los Angeles, CA.

27. Rose, S. (2013). Are You Ready for Meaningful Use Stage 2? Newsletter article for WTxHITREC, Lubbock, TX.

28. Rose, S. (2014). Meaningful Use Stage 2. Webinar presentation for TXRECs.

29. Rose, S. (2014). MU Is A Team Sport – Stage 2. Poster presentation at the Crossroads Conference, Lubbock, TX.

30. Rose, S. (2014). Patient Portals and Patient Engagement. Educational webinar session provided by the WTxHITREC, Lubbock, TX.

31. Sovich, J., Lambert, M.E., Gong, G. (2014). English Language Proficiency and Chronic Disease in a Rural Hispanic Population: A Project FRONTIER Study. Poster presented during Student Research Week, Lubbock, TX.

32. Voyles, D. (2014). Healthcare WithinWalls: Telemedicine in Corrections. E-Poster presented with the American Telemedicine Association, Baltimore, MD.

33. Voyles, D. (2013). Telehealth: The Rise of Virtual Medical Centers and Remote Patient Monitoring. Presented at the 2013 Health IT Summit, Austin, TX.

34. Voyles, D. (2013). Telemedicine 101. Presented at TTUHSC in Lubbock, TX, and in El Paso, TX.

35. Voyles, D. (2014). Telemedicine 101. Presented at Angelo State University in San Angelo, TX; at TTUHSC in Abilene, TX; Dallas, TX; TTUHSC in Amarillo, TX; at the Crossroads Conference in Lubbock, TX.

36. Voyles, D. (2014). Telemedicine 101. Webinar presented for Midland/Odessa TTUHSC.

37. Voyles, D. (2014). Telemedicine: Transforming the Delivery of Healthcare. Presented at the HRSA Gold Lecture Series, Dallas, TX.

38. Voyles, D. (2013). The U.S. Health Care System and Telemedicine. Keynote speaker presentation at the World Congress on Telehealth, Carlsbad, CA.

39. Voyles, D. (2013). The Value of Telemedicine: Business Operations. Presented at the World Congress on Telehealth, Carlsbad, CA.

40. Voyles, D. (2014). Utilizing Telemedicine Technology for Patient Care. Presented at the Texas HIV/STD Conference, Austin, TX.

## AWARDS:

**Travis Hanson, West Texas HITREC** - *Recipient of the Chancellor's Colonel Rowan Award*

# TEXAS TECH UNIVERSITY
# HEALTH SCIENCES CENTER™