Collaborative on Population Health Innovation and Improvement (CoPHII)

COPHII STRATEGIC PLAN FOR THE UNIVERSITY OF TEXAS RIO GRANDE VALLEY

Prepared by: Suad Ghaddar, PhD and Leonel Vela, MD, MPH

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THE UNIVERSITY OF TEXAS RIO GRANDE VALLEY

The University of Texas Rio Grande Valley (UTRGV) was created by the Texas Legislature in 2013 in a historic move that brought together the resources and assets of UT Brownsville and UT Pan American. The new university is also home to a new School of Medicine. UTRGV aims to transform Texas and the nation by becoming a leader in student success, teaching, research, and health care. UTRGV is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award baccalaureate, masters', and doctorate degrees.

UTRGV SCHOOL OF MEDICINE

The University of Texas Rio Grande Valley School of Medicine (SOM) offers an exceptionally innovative learning experience designed to instill students with scientific, clinical and research expertise of the highest professional standards. Characterized by a competency-based curriculum, the SOM utilizes the most technologically advanced resources combined with a program ethos that prioritizes improving health at the individual and community levels. The UTRGV SOM received its preliminary accreditation (covering the first two years of its operation) on Oct. 19, 2015, from the Liaison Committee on Medical Education. In the summer of 2016, UTRGV SOM welcomed its charter class of 55 students.

UTRGV COLLEGE OF HEALTH AFFAIRS

The University of Texas College of Health Affairs (COHA) is dedicated to training the next generation of health professionals producing highly skilled practitioners, educators, and researchers through high quality educational programs, meaningful experiential learning opportunities, and the development of scientific and intellectual inquiry for the promotion of health equity in the Rio Grande Valley and beyond. The College houses two schools, six departments, a cooperative pharmacy program, as well as the South Texas Border Health Disparities Center and the Border Health Office.

OTHER COLLEGES AT UTRGV

UTRGVs other colleges educate and prepare highly skilled professionals to serve in various population health related capacities in the Rio Grande Valley. The College of Sciences has well-recognized pipeline programs in medical education. The College of Liberal Arts prepares students for careers in psychology, sociology, public administration and policy, among others, and is home to the Social Science Survey Center.

MESSAGE FROM UTRGV LEADERSHIP

The University of Texas Rio Grande Valley (UTRGV), the first Texas university in the 21st Century, has as its mission the promotion of student success, research, creative works, health and well-being, community engagement and sustainable development. So it comes as no surprise that UTRGV is excited to participate in the Collaborative for Population Health Innovation and Improvement (CoPHII); the CoPHII strategic plan outlined in this report aligns not only with many of UTRGV's core priorities (Student Success, Educational Opportunities, Health and Medical Education, Research Impacting the Rio Grande Valley and Beyond, and Community Engagement) but also with our values supporting excellence, engagement and impact, and health and well-being.

Improving population health is a complex and difficult process. This reflects the multifaceted pathways through which structural elements and the social determinants of health interact to impact equity in health and well-being. Difficult issues need a committed leadership and require innovative solutions. UTRGV, in the tradition of its legacy institutions, will continue to champion all efforts to improve the quality of life in our community. The unique proposed partnership model between the College of Health Affairs and our newly founded School of Medicine, our Center for Population Health Equity, promises to carry out the vision of CoPHII and to underscore the important role of a population health perspective to promoting health and well-being. At an important junction in our nation's history, we aim to be the premier source for furthering the understanding of the "Border" and for informing important policy decisions at the state, national, and binational levels.

The University of Texas Rio Grande Valley leadership fully supports UTRGV's CoPHII Strategic Plan, as evidenced by our incorporation of a reference to the CoPHII initiative in the most recent draft of our institution's strategic plan. We look forward to the role UTRGV can play in the UT System's overall Collaborative on Population Health Innovation and Improvement.

Sincerely,
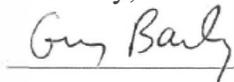
Guy Bailey, PhD
President

Michael Lehker, PhD
Dean, College of Health Affairs

Havidán Rodríguez, PhD
Provost and Executive Vice President for Academic Affairs

Steven Lieberman, MD
Interim Dean, School of Medicine

UTRGV COPHII ADVISORY GROUP

The UTRGV CoPHII Advisory Group was assembled to draw on the knowledge and experience of public and population health stakeholders in the Rio Grande Valley at the community and institutional levels. The Advisory Group provided expertise as well as valuable input on the development and the components of the CoPHII strategic plan for UTRGV. The Advisory Group convened four times: July 25, September 9, October 10, and November 29 of 2016. It includes the following members:

1. Dr. Leonel Vela, Senior Associate Dean for Education and Academic Affairs, School of Medicine, UTRGV

2. Dr. Suad Ghaddar, Director, South Texas Border Health Disparities Center, College of Health Affairs, UTRGV

3. Dr. Ronald J. Dutton, Director, Office of Border Health, Texas Department of State Health Services

4. Dr. Melissa Valerio, Regional Dean, UTHealth School of Public Health San Antonio Regional Campus and Texas System Chancellor's Health Fellow

5. Dr. Michael Lehker, Dean, College of Health Affairs, UTRGV

6. Dr. Douglas Stoves, Associate Dean for Student Rights and Responsibilities, UTRGV and representative from UT Eliminate Tobacco Use Initiative

7. Dr. Belinda Reininger, Interim Chair, Department of Population Health and Behavioral Sciences, School of Medicine, UTRGV; Professor, UTHealth School of Public Health, Brownsville Regional Campus

8. Dr. Gabriel de Erausquin, Chair, Psychiatry and Neurology, School of Medicine, UTRGV

9. Dr. Wesley Harden, Assistant Clinical Professor, Family and Preventive Medicine, School of Medicine, UTRGV and representative from UT Healthy Families Initiative

10. Ms. Doreen Garza, Director, Border Health Office, College of Health Affairs, UTRGV

11. Mr. Eduardo Olivarez, Chief Administrative Officer, Hidalgo County Department of Health and Human Services

12. Ms. Esmeralda Guajardo, Health Administrator, Cameron County Department of Health and Human Services

13. Mr. Mauro Ruiz, Program Manager, Family & Community Health Services, Texas Department of State Health Services, Region 11

14. Mr. Román Abeyta, Program Manager, Immunization, Texas Department of State Health Services, Region 11

ACKNOWLEDGEMENTS

EXECUTIVE SUMMARY

In response to Texas' low health rankings, the University of Texas (UT) System Board of Regents, in February 2015, approved $5 million in funding to support the University of Texas Collaborative on Population Health Innovation and Improvement (CoPHII). Project leads were identified to guide the development of strategic plans for collaborative projects to address Texas' most critical population health needs at UT Health Science Centers and the two new UT medical schools.

The University of Texas Rio Grande Valley (UTRGV), which aims to become a leader in student success, teaching, research, and health care, is one of the institutions participating in CoPHII. The team is led by Dr. Leonel Vela, Senior Associate Dean for Education and Academic Affairs, at UTRGV's School of Medicine.

The objective of this report is to provide an actionable CoPHII strategic plan for UTRGV that, based on identified community needs and stakeholder input, will highlight population health priorities through a set of goals and objectives that aim to improve the health of our population and address health disparities. Our catchment area (Section 1), includes the four border counties of Cameron, Hidalgo, Starr, and Willacy, home to more than 1.3 million people representing half the population of the Texas-Mexico border.

To identify our plan's priority areas, we consulted with various sources: secondary data (Section 2), existing community needs assessments at the regional and institutional levels (Section 3), key informant interviews, input from the CoPHII Advisory Group, and collected primary data for a community health needs assessment from the perspective of public health personnel (Section 2). We also conducted a scan of community and institutional resources relevant to population health promotion (Sections 4, 6, and 7).

Based on the findings from the various approaches to assessing the community's health needs and priorities, we identified the following: (1) obesity and diabetes are major health concerns; (2) access to health care is a serious challenge; (3) an engaged university system is important for community members; and (4) development and training opportunities are key for the medical and population health workforce. The table below identifies the strategic priorities and corresponding goals for UTRGV's CoPHII initiative to meet the identified needs. Our goals are comprehensive and represent a plan that aims to improve population health in the long term. As such, the implementation phase (Year 2) of the CoPHII strategic plan will focus on a few goals and will set the groundwork for some others (see Section 9 for details).

Our CoPHII strategic plan for UTRGV capitalizes on our unique geographic location and corresponding sociodemographic characteristics. It creates an integrated infrastructure that represents a unique partnership model between a general academic institution, primarily the College of Health Affairs (COHA), and a School of Medicine (SOM). Through a collaborative Center for Population Health Equity we will build on the expertise of the South Texas Border Health Disparities Center (COHA), the Health Disparities Scholars Program (COHA), the Border Health Office (COHA), and the Department of Population Health (SOM), among many others. The Center for Population Health Equity will provide the venue for implementing many of the plan's goals including, but not limited to, the infrastructure for surveillance and maintenance of population health indicators, the development of population health curricular components, training of student teams in population health assistance projects, and the channels for advancing a transformative research agenda that responds to key trends in health and health care delivery. Most importantly, the Center will establish UTRGV as the premier source for furthering the understanding of "Border" health issues and for informing policy decisions at the state, national, and binational levels.

The University Of Texas Rio Grande Valley CoPHII Strategic Priorities and Goals	
Mission	To position UTRGV as a national leader in population health innovation through productive community partnerships, educational excellence, and a rigorous research agenda focused on improving population health in the Rio Grande Valley and beyond.
Strategic Priority 1	**Community Resource** Position UTRGV as a community resource for population health innovation and improvement through the provision of services that help identify health priority areas, that guide action on population health, and that assist in evaluating the impact of health policies and interventions
Goal 1.1	Create platforms for ongoing population health surveillance through the systematic collection and dissemination of metrics that can guide action on population health and allow assessment of the progress/impact of interventions at the population level
Goal 1.2	Build expertise in key areas supporting population health sciences
Goal 1.3	Establish an inventory of evidence-based approaches and policies to promote population health and develop a support infrastructure to assist with the implementation of these approaches
Goal 1.4	Support the accreditation of local public health agencies
Goal 1.5	Participate in conversations supporting the development and implementation of telehealth services
Goal 1.6	Maintain a network of key community stakeholders promoting population health
Strategic Priority 2	**Population Health Workforce Development** Build a diverse health workforce with a keen understanding of the determinants of population health and health inequities and with the cultural skills necessary to serve an increasingly diverse population
Goal 2.1	Integrate a population health framework in the education of health professionals to raise awareness of the social determinants of health and their role in influencing health outcomes and in leading to health inequities
Goal 2.2	Develop a Population Health Certificate for medical and allied health professionals/students
Goal 2.3	Develop an interprofessional training infrastructure for student teams trained in assisting with project needs for population health researchers and local public health organizations
Goal 2.4	Advance training and certification opportunities for community health workers
Strategic Priority 3	**Population Health Sciences Innovation** Advance population health sciences innovation through a transformative research agenda that responds to key trends in health and health care and their corresponding impact on population health
Goal 3.1	Conduct a biennial population-based survey that responds to key border and minority health policy information needs at the regional, state, & national levels
Goal 3.2	Support innovative interdisciplinary research projects that promise to advance population health sciences
Goal 3.3	Develop the infrastructure for disease registries that link potential research participants with the academic community
Goal 3.4	Build a network of community organizations and academicians that facilitates the creation of collaborative research teams aiming to advance population health

SECTION 1: IDENTIFIED CATCHMENT AREA

The University of Texas Rio Grande Valley (UTRGV) serves the Texas-Mexico border communities of Cameron, Hidalgo, Starr, and Willacy counties, also known as the Rio Grande Valley (RGV). Accordingly, the catchment area for UTRGV's CoPHII strategic plan reflects the university's scope of service. The four-county catchment area is home to over 1.3 million people and is projected to have a population of over 1.7 million by 2025 (Table 1); its population represents half the population of the Texas-Mexico border area. The overwhelming majority of the population is of Hispanic or Latino origin (90%). Poverty is one of the main challenges facing the area with per capita incomes ($14,454) at almost half those at the state ($26,513) and national ($28,555) levels; over a third of the population lives in poverty compared to 18% and 17% at the state and national levels, respectively. Low educational attainment is another challenge; only 62% of the catchment area's population are high school graduates compared to 82% and 86% at the state and national levels, respectively.

It is worth noting that right across the border from the RGV are the two Mexican sister cities of Matamoros (across from Brownsville) and Reynosa (across from McAllen). Both cities are in the state of Tamaulipas and each has a population that exceeds half a million people. Close social and economic ties characterize the relationship between the two sides of the border.

Table 1. Sociodemographic Profile of UTRGV's Catchment Area					
County	**Cameron**	**Hidalgo**	**Starr**	**Willacy**	**Catchment Area**
Population (2015 estimates)	422,156	842,304	63,795	21,903	1,350,158
Share of catchment area population	31%	62%	5%	2%	100%
Population (2025 projections)*	539,676	1,136,822	72,205	29,227	1,777,930
Of Hispanic or Latino origin	88%	91%	96%	87%	90%
Per capita income	$14,898	$14,525	$11,935	$11,693	$14,454
People living below poverty level	35%	35%	39%	38%	35%
Percent high school graduate or higher	64%	62%	47%	63%	62%
Sources: U.S. Census Bureau, Population Division, Annual Estimates of the Resident Population; 2010-2014 American Community Survey 5-Year Estimates Texas Demographic Center, Texas Population Projections Program *Population projections assume the 2000-2010 migration rate.					

SECTION 2: COMPILED DATA ON THE HEALTH OF THE POPULATION

To compile data on the health of the population in our catchment area, we selected the health indicators that reflect the Centers for Disease Control and Prevention's (CDC) recommended metrics for health outcomes and determinants (Table 2).[1] These health indicators can help depict a community's health, pointing to areas of health priorities, and, consequently, can help drive action to improve population health.[2]

Table 2. Community Health Assessment for Population Health Improvement Most Frequently Recommended Health Metrics*					
Health Outcome Metrics		**Health Determinant and Correlate Metrics**			
Mortality	**Morbidity**	**Health Care (Access & Quality)**	**Health Behaviors**	**Demographics & Social Environment**	**Physical Environment**
Mortality – Leading Causes of Death	Obesity	Health Insurance Coverage	Tobacco Use/ Smoking	Age, Sex, Race/ Ethnicity, Income, Marital Status	Air Quality
Infant Mortality	Low Birth Weight	Provider Rates (PCPs, Dentists)	Physical Activity	Poverty Level	Water Quality
Injury-Related Mortality	Hospital Utilization	Asthma-Related Hospitalization	Nutrition	Educational Attainment	Housing
Motor Vehicle Mortality	Cancer Rates		Alcohol Use	Employment Status	
Suicide	Motor Vehicle Injury		Immunizations and Screenings	Foreign-Born	
Homicide	Overall Health Status			Language Spoken at Home	
	STDs (chlamydia, gonorrhea, syphilis)			Violence and Crime	
	AIDS			Social Capital/ Social Support	
	Tuberculosis				
Source: U.S. Centers for Disease Control and Prevention. Community Health Assessment for Population Health Improvement: Resource of Most Frequently Recommended Health Outcomes and Determinants, Atlanta, GA: Office of Surveillance, Epidemiology, and Laboratory Services, 2013. *The following recommended metrics were not included due to unavailability of county-level data sources: unsafe sex, seatbelt use, homelessness, and domestic violence and child abuse.					

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[1] U.S. Centers for Disease Control and Prevention. Community Health Assessment for Population Health Improvement: Resource of Most Frequently Recommended Health Outcomes and Determinants, Atlanta, GA: Office of Surveillance, Epidemiology, and Laboratory Services, 2013.

[2] Please note that this compiled data will serve as the basis for population health surveillance proposed under Strategic Priority 1, Goal 1.1.

We consulted with various sources to collect secondary data of the area's health indicators. Among those were: U.S. Census Bureau (e.g., American Community Survey, Small Area Health Insurance Estimates), Robert Wood Johnson Foundation County Health Rankings, CDC (e.g., Behavioral Risk Factor Surveillance System, CDC Wonder) and Texas Department of State Health Services, among others. Detailed information and charts are available in the Appendix. The chart to the right is a sample of how data is presented in the Appendix. Table 3 reports on select health indicators that highlight areas of disparities for the four counties, compared to Texas and the U.S.

PER CAPITA INCOME

Source: U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates
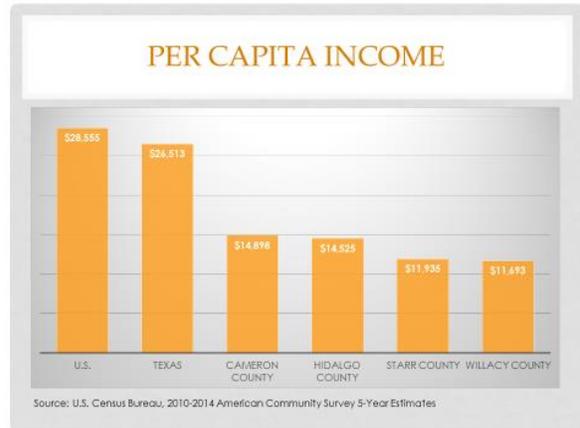
Table 3. Select Health Indicators for U.S., Texas, and RGV Counties						
Health Determinant – Demographics						
Measure	**U.S.**	**Texas**	**Cameron**	**Hidalgo**	**Starr**	**Willacy**
Of Hispanic or Latino origin	17%	38%	88%	91%	96%	87%
Per capita income	$28,555	$26,513	$14,898	$14,525	$11,935	$11,693
People living below poverty level	16%	18%	35%	35%	39%	38%
Percent high school graduate or higher	86%	82%	64%	62%	47%	63%
Foreign-born	13%	17%	25%	29%	33%	16%
Speak English less than very well	9%	14%	30%	32%	51%	21%
Health Determinant – Health Care (Access and Quality)						
Uninsured – Under 65 years	13%	21%	33%	34%	32%	26%
Uninsured – 18-64 years	14%	26%	44%	46%	43%	33%
Primary care physicians/100K population	76	60	46	46	18	32
Dentists/100K population	60	51	26	26	11	9
Psychiatrists/100K population	10	6	3	1	0	0
Health Determinant – Health Behaviors						
Binge drinking among males	25%	25%	29%	29%	30%	34%
Health Outcome – Morbidity						
Fair/poor health – age-adjusted	10%	18%	30%	27%	33%	-*
Obesity prevalence						
Females	36%	39%	47%	49%	56%	51%
Males	34%	36%	42%	44%	46%	44%
Total diabetes prevalence**	14%	16%	22%	22%	26%	23%
For metric definitions and data sources, please see the Appendix. *Data is statistically unreliable. **Total diabetes prevalence is equal to the sum of diagnosed and undiagnosed diabetes prevalence.						

SECTION 3: COMMUNITY NEEDS AND PRIORITIES ASSESSMENT

To identify the community health needs and priorities we (1) reviewed existing community needs assessments (CNAs), (2) collected secondary data on several health determinants and outcomes (outlined in the prior section), (3) conducted key informant interviews with various public health stakeholders at the institutional and community levels, and (4) administered a survey to public health personnel to seek their input on the community's health care needs and to identify the skills and competencies needed for our public health workforce.

EXISTING COMMUNITY NEEDS ASSESSMENTS

Through literature reviews and discussions with community stakeholders, we identified and reviewed eight existing community needs assessments (CNAs) for the Rio Grande Valley over the past 10 years. Findings from these reviews identified diabetes, obesity, and health care access barriers (lack of health care coverage, shortage of primary care health professionals, transportation) as the top health challenges facing the community. We compared these local CNAs to comprehensive, large-scale CNAs in Brooklyn, San Diego County, and Travis County[3] to inform our assessment of the quality and methods of existing local CNAs. The main limitations to the RGV assessments were the lack of a comprehensive approach to assessing community needs and the lack of clarity on the methods used. The consistency of the findings across studies, however, lends credibility to the top health challenges identified.

The existing community needs assessments we reviewed included the following:

1. Ramirez AG, Thompson IM, Vela L, eds. The South Texas Health Status Review. 2008.
2. 2011 PRC Community Health Report: Cameron, Hidalgo, & Willacy Counties, Texas.
3. Hidalgo County Health and Human Services Department. Texas Healthcare Transformation and Quality Improvement Program: Regional Healthcare Partnership Plan. 2012.
4. Mission Regional Medical Center. A Community Health Needs Assessment & Implementation Plan. 2012.
5. Ramirez AG, Thompson IM, Vela L, eds. The South Texas Health Status Review: A Health Disparities Roadmap. 2nd edition. 2013.
6. Cameron County Cohort. UTHealth School of Public Health, Brownsville Regional Campus.
7. Ghaddar, S. *Operation Lone Star 2015*. South Texas Border Health Disparities Center, College of Health Affairs, The University of Texas Rio Grande Valley.
8. Mission Regional Medical Center. A Community Health Needs Assessment & Implementation Plan. 2016.

At the institutional level, we identified three health reports/needs assessments.

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[3] New York Academy of Medicine. *New York City Health Provider Partnership Brooklyn Community Needs Assessment*. October 2014; County of San Diego, Health and Human Services Agency. *Live Well San Diego Community Health Assessment*. June 2014; Austin/Travis County Health and Human Services Department. Community Health Assessment, Austin/Travis County, Texas. December 2012.

1. Border Health Office and the Office of Institutional Research & Effectiveness. *UTPA Wellness Survey Results*. 2004.
2. Border Health Office and the Office of Institutional Research & Effectiveness. *UTPA Faculty and Staff Wellness Report*. 2011.
3. Ghaddar S. 2016. *A community needs assessment of UTRGV students*. South Texas Border Health Disparities Center, College of Health Affairs, The University of Texas Rio Grande Valley.

    Findings from 450 student-, self-administered surveys reveal the following:
    - 40% rate their communities as "very unhealthy" (9%) or "unhealthy" (31%)
    - Top three most important needs for student and his/her family: food (61%), health services-medical, dental, mental (48%), affordable housing and rent (40%)
    - Top five community health concerns: diabetes (60%), obesity (50%), drug and alcohol use (38%), teen pregnancy (34%), drinking and driving (26%)
    - Top five health education programs needed in the community: exercise/physical activity (66%), nutrition (64%), diabetes (62%), family planning (43%), cancer/cancer prevention (39%)
    - Top five services/programs that were not available at all or not very available in the community: mental health services (40%), substance abuse services (38%), job training (35%), healthy foods (35%), accessible transportation (29%)
    - Top three health issues the student faces: depression or anxiety (17%), overweight (15%), chronic pain (6%)

SECONDARY DATA

Please refer to prior section on "Compiled Data on the Health of the Population."

KEY INFORMANT INTERVIEWS

We conducted 10 key informant interviews with 15 public health leaders at the academic and practice levels. Discussions focused on the community's health needs and the informant's vision for UTRGV's role in promoting and supporting population health. These included:

1. Ms. Dina Sosa, Mr. Mauro Ruiz and Mr. Román Abeyta, Program Managers for Communicable Disease, Family & Community Health Services, and Immunization, respectively, Texas Department of State Health Services, Region 11
2. Ms. Esmeralda Guajardo, Health Administrator, Cameron County Department of Health and Human Services
3. Dr. Marsha Griffin, Director, Division of Child and Family Health, UTRGV School of Medicine and co-founder, Community for Children
4. Mr. Rick Salinas, 1115 Waiver Program Coordinator, Hidalgo County Department of Health and Human Services
5. Ms. Misti Palacios, Executive Assistant-Community Relations, Hidalgo County Department of Health and Human Services

6. Ms. Doreen Garza and David Salazar, Director and Assistant Director, respectively of the Border Health Office, College of Health Affairs, UTRGV
7. Ms. Sulema Flores, Health Services Director and Ms. Julia Soper, School Nurse, Pharr-San Juan-Alamo Independent School District
8. Mr. Eduardo Olivarez, Chief Administrative Officer; Ms. Misti Palacios, Executive Assistant-Community Relations; and Ms. Nancy Treviño, Public Health Coordinator. Hidalgo County Department of Health and Human Services
9. Dr. Belinda Reininger, Interim Chair, Department of Population Health and Behavioral Sciences, School of Medicine, UTRGV; Professor, UTHealth School of Public Health, Brownsville Regional Campus
10. Dr. Deepu George, Clinical Assistant Professor; Ms. Leslie Allison, Clinical Instructor, Mr. Evan Garcia, Research Assistant; Department of Family and Preventive Medicine, SOM, UTRGV

SURVEY OF PUBLIC HEALTH PERSONNEL

Given the important role of public health departments in promoting population health, we conducted a study to seek the perspective of public health personnel on our community's health and health care needs and on areas where investment in public health training is needed. An online survey was administered to employees at local public health departments. The survey instrument which was based in part on the Public Health Workforce Interests and Needs Survey [4] included questions on the following: socio-demographic information, core competencies for public health professionals,[5] community health issues, health status, utilization of health care services, prevention and screening services, health behaviors, seat belt use, sunscreen use, physical activity, and fruit and vegetable consumption. Survey distribution was facilitated by the leadership at the three local public health departments/units: Cameron County Department of Health and Human Services, Hidalgo County Department of Health and Human Services, and Texas Department of State Health Services, Region 11. Data collection took place over the period of September 7 – November 18 of 2016. Over 180 public health employees completed the survey. We will prepare a report and share the findings with participating organizations. Table 4 reports the results of select survey questions.

Table 4. Select Results from Survey of Public Health Personnel	Percent	N
Female	86	183
Organization		183
Cameron County Department of Health and Human Services	50	
Hidalgo County Department of Health and Human Services	25	
Texas Department of State Health Services, Region 11	23	
Full-time employee	95	185
Supervisory status		181
Non-supervisor	71	

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[4] Association of State and Territorial Health Officials. *Public Health Workforce Interests and Needs Survey*. http://www.astho.org/phwins/Instrument/.

[5] The core competencies include the following eight domains, reflecting skill areas within public health: analytical/assessment; policy development/program planning; communication; cultural competency; community dimensions of practice; public health sciences; financial planning and management; and leadership and systems thinking.

Team leader	11	
Supervisor	12	
Manager/Executive	6	
Top 5 most important needs for respondent and family		186
Health services (medical, dental, mental)	51	
Adult education (GED programs, college selection, scholarships)	26	
Home repairs	25	
Homebuyer assistance	23	
Unplanned expenses related to an emergency	22	
Recreational activities for youth	22	
Top 5 biggest health concerns in community		186
Diabetes	72	
Obesity	59	
Hypertension	41	
Access to care (health insurance)	34	
Mental health	26	
Top 5 most needed health education programs in community		186
Diabetes	74	
Nutrition	60	
Exercise/physical activity	59	
Mental health	39	
Cancer/cancer prevention	37	

Figure 1 reports on the importance of 6 of 18 public health competencies in a respondent's current position and the corresponding self-rated skill level in that competency. Overall results reveal that anywhere between a quarter to one third of the public health workforce will benefit from workforce development efforts in core competencies.
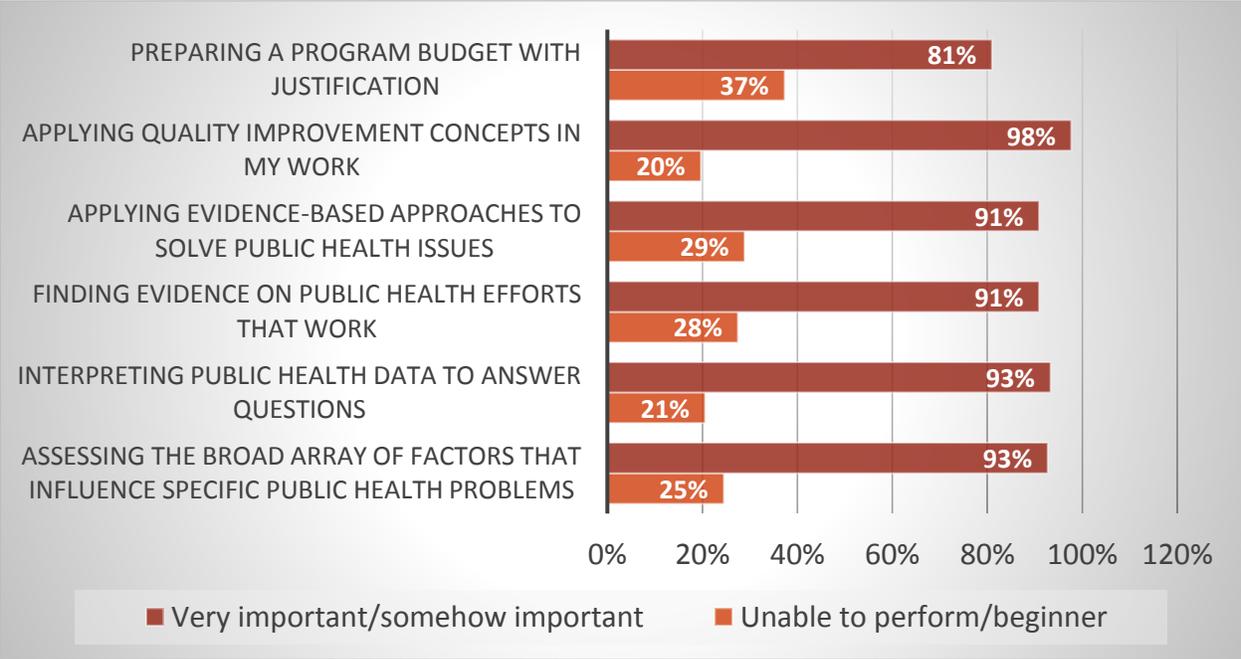
Figure 1. Importance of Public Health Competencies and Corresponding Self-Rated Skill Level

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SECTION 4: IDENTIFIED RESOURCES IN THE COMMUNITY

The UTRGV catchment area has an abundance of resources that a collaborative to advance the region's population health can capitalize on. The following tables outline the main resource categories: institutions of higher education, hospitals, community health centers, departments of health, veteran health care services, etc.

Institutions of Higher Education	Population Health-Related Resources
University of Texas Rio Grande Valley	Cameron, Hidalgo, Willacy, Starr and beyond
School of Medicine	**Department of Population Health** **Department of Family and Preventive Medicine** **Office of Interprofessional Education and Practice** **Residency programs** • Family Medicine: 2 programs; 12 residents/year • Internal Medicine: 2 programs; 22 residents/year • General Surgery: 1 program; 4 residents/year • Obstetrics and Gynecology: 1 program; 4 residents/year • Preventive Medicine: planned for 2017; 2 residents/year • Psychiatry: planned for 2017; 6 residents/year **Community Clinics/Hubs** • John Austin Peña Clinic (in collaboration with Hidalgo County Department of Health and Human Services and funded by Methodist Healthcare Ministries) implements a collaborative team-care model to deliver health care services for triply-diagnosed teens. • Six community hubs as conduits for interprofessional education activities that include: community needs and strengths assessments, social and behavioral services, health care system navigation, wellness services, etc. *Unimóvil*: a mobile medical unit extending the School's reach into medically underserved areas of the Rio Grande Valley, including nearby *colonias*. Medical services offered include health screenings and health education and promotion.
College of Health Affairs (COHA)	**South Texas Border Health Disparities Center** (to be reorganized as Center for Population Health Equity) **Border Health Office**: Community outreach **Health professions education**: Cooperative Pharmacy Program, Communication Sciences & Disorders, Health and Biomedical Sciences, Health and Human Performance, Occupational Therapy, Physician Assistant Studies, Social Work, School of Nursing, School of Rehabilitation Services and Counseling **UTRGV Community Primary Care Clinics** (Harlingen, McAllen) **Affiliation agreements**: Over 500 agreements with community organizations, clinics, health systems, etc. for purposes of providing experiential learning opportunities for COHA students

College of Liberal Arts	**Department of Psychological Science**: BA & BS in psychology, MA and PhD (under development) in clinical psychology, MS in experimental psychology **Department of Sociology and Anthropology** **Social Science Survey Center** **Medical Spanish for Heritage Learners** (Minor Degree): The nation's only full program in Medical Spanish aims to develop critical skill sets for future healthcare providers to improve communication with Spanish-speaking patients. Additionally, the curriculum is designed to raise awareness about language issues that intersect with access to healthcare among Spanish-speaking patients in the U.S. The program includes a service-learning internship at a local community health center that serves primarily uninsured and limited English proficient patients.
UTHealth School of Public Health, Brownsville Regional Campus	Cameron, Hidalgo, Willacy, Starr and beyond
Academic programs	Certificate programs, general MPH, MPH in Epidemiology, MPH in Health Promotion & Behavioral Sciences, PHD in Epidemiology and a DrPH in Health Promotion, MBA/MPH program in conjunction with UTRGV
Research	Hispanic Health Research Center (HHRC) whose main focus is to reduce or eliminate health disparities among Hispanics living in the South Texas Border Region and nationally
Texas A&M Health Science Center - McAllen Campus	Cameron, Hidalgo, Willacy, Starr and beyond
Academic Programs	MPH in Health Promotion and Community Health Sciences with a Concentration in Border Health; BSPH
Community Outreach Programs	Faculty and staff, including *promotoras*, advise and collaborate in ongoing clinics, screening programs and mobile health projects to provide health care to south Texas communities
Research	Research initiatives aim to address the health issues in the border population, particularly the high rate of type 2 diabetes, lack of medical insurance, poor access to health care and the effects of environmental factors.
UT Health Science Center San Antonio	Lower Rio Grande Valley
South Texas AHEC Program (Lower Rio Grande Valley AHEC)	Aims to improve the health status and quality of life for residents of South Texas by improving access to culturally competent and quality health care through appropriate preparation, composition, and distribution of the health professional workforce in a primarily underserved and highly impoverished 38 counties of South Texas.

Health Care Delivery Systems: Hospitals					
Cameron County, City of Brownsville					
Hospital Name	**Primary Service**	**Beds**	**Admissions**	**Outpatient Visits**	**Births**
South Texas Rehabilitation Hospital	Rehabilitation	40	825	4,186	0
Valley Baptist Medical Center-Brownsville	General medical & surgical	262	10,687	69,443	2,168
Valley Regional Medical Center	General medical & surgical	214	9,196	71,391	2,553
Note: No information was available on Solara Hospital-Brownsville (it is not clear if the Brownsville data is included within that of Solara Hospital-Harlingen).					
Cameron County, City of Harlingen					
Harlingen Medical Center	General medical & surgical	88	4,868	62,806	671
Rio Grande State Center	Psychiatric	128	663	35,190	0
Solara Hospital Harlingen	Acute long-term care	82	813	0	0
Valley Baptist Medical Center	General medical & surgical	416	16,145	118,296	2,394
Hidalgo County, City of Edinburg					
Edinburg Children's Hospital*		-	-	-	-
Edinburg Medical Regional Center*	General medical & surgical	-	-	-	-
Cornerstone Regional Hospital	Surgical	14	552	2,841	0
Doctors Hospital at Renaissance	General medical & surgical	525	31,840	220,396	9,490
Hidalgo County, City of McAllen					
Lifecare Hospitals of South Texas	Acute long-term care	84	726	0	0
McAllen Heart Hospital*	General medical & surgical	-	-	-	-
McAllen Medical Center*	General medical & surgical	-	-	-	-
Rio Grande Regional Hospital	General medical & surgical	320	14,323	76,927	2,474
Solara Hospital McAllen	Acute long-term care	78	581	41,748	0
Hidalgo County, City of Mission					
Mission Regional Medical Center	General medical & surgical	249	9,097	76,927	2,358
Hidalgo County, City of Weslaco					
Knapp Medical Center	General medical & surgical	192	9,398	76,021	1,870

Weslaco Regional Rehabilitation Hospital	Rehabilitation	32	577	0	0
Hidalgo County					
South Texas Health System	General medical & surgical	788	24,423	129,689	1,604
Note: The South Texas Health System includes various health delivery systems within the Rio Grande Valley. Individual data on the following hospitals (McAllen Medical Center, Edinburg Regional Medical Center, McAllen Heart Hospital, Edinburg Children's Hospital) was not available but is believed to be included in the numbers for the South Texas Health System above.					
Starr County, City of Rio Grande City					
Starr County Memorial Hospital	General medical & surgical	47	1,317	41,748	263
Source: American Hospital Association Quick Reports. https://www.ahadataviewer.com/quickreport/. Accessed October 27, 2016.					

Health Care Delivery Systems: Community Health Centers				
Brownsville Community Health Center	Service area: Cameron County Services: medical (73% of patients), dental (20%), mental health (1%), enabling (22%)			
Percentage of **20,422 patients** served in 2015				
Best served in another language	At or below 100% of poverty	Uninsured	With hypertension	With diabetes
95%	79%	58%	25%	23%
Su Clínica Familiar	Service area: Cameron County and parts of Hidalgo County Services: medical (95% of patients), dental (27%), mental health (3%), enabling (46%)			
Percentage of **33,236 patients** served in 2015				
Best served in another language	At or below 100% of poverty	Uninsured	With hypertension	With diabetes
49%	78%	43%	31%	27%
Nuestra Clínica del Valle	Service area: Hidalgo County and Starr County Services: medical (96% of patients), dental (13%), mental health (3%), enabling (83%)			
Percentage of **27,673 patients** served in 2015				
Best served in another language	At or below 100% of poverty	Uninsured	With hypertension	With diabetes
43%	82%	81%	36%	27%
Source: Health Resources and Services Administration, Health Center Data and Reporting, Health Center Program Grantee Data, 2015 Health Center Profile				

Other Health Care Delivery Systems	
Departments of Health	
Cameron County Department of Health and Human Services	Offers a wide array of public health services as well as clinical services through various programs and clinics.
Hidalgo County Department of Health and Human Services	Offers a wide array of public health services as well as clinical services through various programs and clinics.
Texas Department of State Health Services, Health Service Region 11	One of 11 public health regions of the Department of State Health Services, bringing comprehensive public health services to a 19-county area of the Rio Grande Valley.
Behavioral Health Services	
Tropical Texas Behavioral Health	Provides comprehensive recovery-oriented services to individuals with behavioral health needs.
Behavioral Hospital at Renaissance	An 88-bed psychiatric facility that provides services for children, adolescents, adults and senior adults.
Border Region Behavioral Health Center	Provides adult and children's mental health services. It also has an Intellectual and Developmental Disabilities Program.
South Texas Behavioral Health Center	A 134-bed facility, for child, adolescent, adult and geriatric patients, that helps people effectively cope with varying behavioral health conditions and addictive disorders.
Rio Grande State Center	A 55-bed in-patient psychiatric hospital and 75-bed residential facility for individuals with intellectual and developmental disabilities. Also offers outpatient medical healthcare, physical and occupational therapy, speech therapy, and dental services.
Veterans Health Care Services	
Harlingen VA Outpatient Clinic	Provides primary care services for veterans in the Harlingen area. The clinic also offers a laboratory, mental health, nutrition, and social work services.
VA Health Care Center at Harlingen	Three-level center providing specialty outpatient care & surgical services for Veterans in the Texas Valley Coastal Bend Health Care System area.
McAllen Outpatient Clinic	Provides primary care services for veterans in the McAllen area. The clinic also offers behavioral health, nutrition, social work, telemedicine, pharmacy, Women's health, radiology, laboratory, optometry, physical therapy, and prosthetics services.
Other Health-Related Resources	
School Districts with Health Professions Programs	
Brownsville ISD	
Harlingen CISD	Harlingen School of Health Professions
South Texas ISD	South Texas Academy for Medical Professions South Texas High School for Health Professions
Medical Societies	
Cameron-Willacy County Medical Society	A physician support group providing an array of services from legislative and legal advocacy to continuing medical

	education and technology-driven practice management support for its members in Cameron and Willacy counties.
Hidalgo-Starr County Medical Society	A community of physicians from Hidalgo and Starr counties aiming to provide a platform for the opinions of the profession in all scientific, legislative, public health, material, and social affairs.
Faith-Based Organizations	
Methodist Healthcare Ministries of South Texas	Provides funding to deepen collaborative efforts, incentivize quality health outcomes, leverage and strengthen health care delivery systems, and promote sustainable systems change
Catholic Charities of the Rio Grande Valley	Has projects that assist the poor and most vulnerable populations in the Lower Rio Grande Valley
Advocacy Groups	
Rio Grande Valley Equal Voice Network	Provides a platform to bring working families' voices to the political table. Has a Health Care working group.
Rio Grande Valley Teen Pregnancy Prevention Coalition	Aims to reduce the rate of teen pregnancy across Texas through statewide leadership focusing on connecting Texas communities to the research and tools they need to make an impact.
Promotora **Organizations**	
MHP Salud	Implements Community Health Worker programs to empower underserved Latino communities and promotes the CHW model nationally as a culturally appropriate strategy to improve health.
Other	
Texas A&M University Colonias Program	Provides access to a wide array of social programs such as educational services (e.g. literacy, GED, job training, dropout prevention), vital health and human services, and economic and community development assistance

SECTION 5: IDENTIFIED HEALTH PRIORITIES

The review of community needs assessments, secondary data, primary data, and key informant interviews points to the following recurring themes for the area's health priorities and needs.

- **Obesity**: Obesity is a major health problem at both the national and global levels. It is, however, more of an acute issue among Hispanics and among individuals with lower socioeconomic status, both important sociodemographic features that characterize our catchment area. The relationship between obesity and poor health outcomes is now well established in the scientific literature. In particular, obesity is considered an independent risk factor for cardiovascular disease (CVD) and also associated with CVD risk factors such as hypertension and diabetes. Other health problems associated with obesity include: cancer, osteoarthritis, sleep apnea, reproductive problems, as well as serious health problems in children and teens who are reporting increasing rates of Type 2 diabetes, a once rare condition in this age group.
- **Diabetes**: Based on secondary data sources, age-adjusted adult diabetes prevalence rates (diagnosed and undiagnosed diabetes) are higher in the Rio Grande Valley relative to the state and the nation (range of 22% to 26% compared to 16% and 14%, respectively).[6] These figures are considered by many local health stakeholders to be underestimated, a point that is supported by local research efforts; among participants in a Hispanic cohort in Cameron County, diabetes prevalence was reported at 28% and prediabetes prevalence at 32%.[7] These high prevalence estimates are further exacerbated by low levels of glycemic control; among those with a previous diabetes diagnosis, only 15% reported diabetes control compared to 19% state- and nationwide.[6]
- **Health care access**: Several factors contribute to poor access to health care services in the area. These include lack of health care coverage, health professional shortages, and language barriers.
- **An engaged university system** that provides academic and expert support for community-based population health efforts: Various projects aiming at improving population health in the Rio Grande Valley take place across many community organizations (public health departments, advocacy groups, etc.). A consistent need that emerged in discussions with key informants and within the Advisory Group was the need for UTRGV support in different areas of expertise that can take the community's work to the next level and lend it more credibility. This in turn would allow community organizations to access more resources, primarily in the form of funding, to advance their work and increase their impact on population health.
- **Population health care workforce development**:
  - Institutional level
    - Support for faculty lines in population health areas (e.g., epidemiology, biostatistics, evaluation, health informatics)
    - Support for infrastructure to train and develop the population health workforce (health professions and medical students)

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[6] Institute for Health Metrics and Evaluation (IHME), US County Profiles. Seattle, WA: IHME, 2015.
[7] Fisher-Hoch SP, Vatcheva KP, Rahbar MH, McCormick JB. Undiagnosed Diabetes and Pre-Diabetes in Health Disparities. *PLoS One*. 2015 Jul 17;10(7):e0133135. doi: 10.1371/journal.pone.0133135.

- Community level
  - Community health workers: Community health workers (CHWs) represent an important cornerstone in health education and outreach efforts in vulnerable populations. Having a well-trained CHW workforce ensures the receipt of better-quality services and a recognition for an important constituent of the population health workforce.
  - Public health personnel: Results from the survey of public health personnel competencies reveals a discrepancy between the public health competencies required by one's job and the actual skill level an employee has. Areas such as budget preparation, application of quality improvement concepts, utilization of evidence-based approaches, and interpretation of public health data, among others, represent opportunities for UTRGV's continuing education division and faculty members.

In addition to the CoPHII initiative aiming to identify community, regional, and system-wide health priorities, creating a system-wide tobacco-free culture is one of the main priorities identified and pursued at the UT System level. At UTRGV, several policies are being implemented towards that end. Among these are:[8]

- Signage around campus
- Creating a more robust web presence to encourage quitting
- Inclusion of an active bystander component
- Programming through various departments (Student Rights and Responsibilities, Student Health Services, Counseling, etc.)
- A clearly defined enforcement mechanism
- An anonymous reporting form for campus members to report hot spots or smokers
- Planning for proactive tools and efforts

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[8] Based on communication with Dr. Douglas Stove, UTRGV representative for UT Eliminate Tobacco Use Initiative.

Section 6: Identified Availability and Gaps in Technology and Infrastructure to Support Population Health

Infrastructure to Support Population Health Activities

Department of Population Health, School of Medicine, UTRGV
One of only two population health departments within the UT System's medical education infrastructure, the department aims to provide leadership in research and education to advance clinical care, patient outcomes and population health initiatives across UTRGV.

South Texas Border Health Disparities Center, College of Health Affairs, UTRGV
The Center was established in 2008 and will be reorganized as the Center for Population Health Equity. It is dedicated to the advancement of knowledge on health disparities and biomedical research by enhancing the institutional capacity to conduct research addressing issues particular to the largely Hispanic population along the Texas-Mexico border. This goal has been achieved through the following:

- Allocation of seed funding for 15 developmental health disparities research projects led by UTPA investigators and the development of over 15 center-based research projects promoting population health equity.
- Hosting a Lecture Series attracting researchers renowned for their work on Latino health and health disparities.
- Development of transdisciplinary partnerships and collaborations on health disparities research with other academic centers at UTPA (e.g., Border Health Office, Valley Markets and Tourism Center, Texas Manufacturing Assistance Center), other institutions of higher education (e.g., University Of Michigan School of Public Health, University of Texas School of Public Health, University of Minnesota School of Public Health), and community organizations (e.g., local school districts, local community health centers, health departments, senior community centers, local businesses).
- Dissemination of research findings through 26 peer-reviewed publications and over 65 conference presentations.
- Creation of a supportive learning environment for future health disparities researchers through research opportunities for over 44 undergraduate and graduate students and funding for training and workshops.

Border Health Office, College of Health Affairs, UTRGV
The Border Health Office (BHO) aims to promote and conduct health education, health services, and health research leading to improved health for the residents of Texas. The BHO's Texas Risk Assessment for Type 2 Diabetes in Children program helps families across the state by identifying school children who are at risk of developing type 2 diabetes and its numerous associated health conditions. The BHO also coordinates various diabetes education activities in school districts across the Rio Grande Valley.

These infrastructure components will ensure that the Center for Population Health Equity, an integrated collaborative center between the COHA and the SOM, will have the expertise to lead the implementation of the CoPHII strategic plan for UTRGV and its different components.

INFRASTRUCTURE TO SUPPORT STUDENT HEALTH

Office of Student Support, Counseling and Wellness, UTRGV School of Medicine (http://www.utrgv.edu/som/student-wellness): aims "to promote wellness lifestyles in an environment that supports learning, self-care, and the development of future citizen leaders." Services address academic concerns and grievances, suicide prevention, spiritual support, veterans counseling, substance abuse, and financial concerns, among others.

Student Health Services at UTRGV provides general medical care as well as specialty clinics in women's wellness, skin care, and sexually transmitted diseases screening. It also has routine immunizations and TB testing as well as a Class D pharmacy that can fill most prescriptions written in the clinic.

Fitness and Wellness department at University Recreation offers group exercise, personal training, and a variety of fitness equipment to promote health and well-being. Most of the programs are free or at reduced costs for members.

INFRASTRUCTURE TO SUPPORT FACULTY/STAFF HEALTH

UTRGV offers various resources that promote wellness among its employees. These include, but are not limited to, the following: nursing mother suites; access to preventive care (e.g., annual routine physical exams, immunizations, annual well-woman exam, osteoporosis screening; various campus health fairs with screening services); access to UT Systems' Living Well Program resources; tobacco cessation resources; health monitoring kiosks; walking trails; bike share; access to university recreation facilities; etc.

POPULATION HEALTH COURSEWORK AT UTRGV

To identify coursework that addresses and raises awareness of health disparities and population health issues, we conducted a search of UTRGV's 2015-2017 undergraduate and graduate catalogs. Search phrases included the following terms: "population health", "disparity", "health disparities", "inequality" and "social determinants." The search returned several courses but only the couple below were relevant to educating UTRGV students on population health.

- NURS 6474 Leadership, Policy and Population Health: required graduate nursing course that explores aspects of horizontal and vertical leadership central to the Clinical Nurse Leadership role… Also explored the reciprocity between health care policies and population health, and emphasizes the relationship of behaviors as well as social and political structures to health outcomes.
- SOCI 6326 Health Research and Policy: This graduate sociology course examines health care inequality and policy in the United States. Health outcomes by race, class, gender, sexual orientation, and geographical location may be examined, as well as challenges confronting the health care system.

At the School of Medicine, there are currently two courses, one is required while the other is an elective for health professions students.

- Medicine, Behavior, and Society (MBS) Module (required, Years 1-2) explores the history, law, ethics, clinical, social and cultural contexts of medicine as well as human behavior. The course focuses on global issues including the health care system and local border health issues.

- South Texas Environmental Education and Research (STEER) is a 4-week elective that transforms current and future health professionals by providing a compelling, community-based, educational experience that allows them to make the connection between the environment, public health and medicine. STEER immerses health professions students and faculty in the unique culture and environment of the Texas-Mexico Border, with the purpose of reuniting Medicine and Public Health.

The above point to the following **gaps**:

- While several activities exist to promote UTRGV student, staff, and faculty health, there is limited coordination among the different groups and a little effort to assess reach and impact.
- A dearth of courses that introduce students to population health and raise awareness about the social determinants of health and health inequities[9] highlights the need for an integrative framework for educating our medical and health professions students in population health concepts.

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[9] It is worth noting that our search criteria does not account for population health topics that may be embedded in courses and, thus, not easily identifiable from the course title and its short description. An extensive syllabus review process will help uncover these courses.

Section 7: Identified Availability and Gaps in the Population Health Workforce

The population health workforce within the Rio Grande Valley (RGV) is comprised of many health workers aiming to address the health care needs of the population. Table 5 depicts the number of health care workforce, by general occupational category in 2014, along with the projected number needed in 2024. The table highlights the rapid growth in occupations serving our communities' health care needs.

Table 5. Select Occupation Projections			
Cameron County Workforce Development Area			
Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Number Change 2014-20124
Counselors/Social Workers/Other Social Service Specialists [a]	1,890	2,360	470
Health Diagnosing & Treating Practitioners [b]	5,150	6,270	1,120
Healthcare Support Occupations [c]	9,820	12,880	3,060
Lower Rio Grande Valley Workforce Development Area (Hidalgo, Starr and Willacy counties)			
Occupational Title	Annual Average Employment 2014	Annual Average Employment 2024	Number Change 2014-20124
Counselors/Social Workers/Other Social Service Specialists [a]	3,190	3,890	700
Health Diagnosing & Treating Practitioners [b]	8,660	11,240	2,580
Healthcare Support Occupations [c]	15,840	20,370	4,530
Source: Texas Workforce Commission, Employment Projections [a] These include mental health counselors, rehabilitation counselors, social workers, health educators, community health workers, among others. [b] These include nutritionists, optometrists, pharmacists, physicians and surgeons, occupational therapists, physical therapists, speech language pathologists, registered nurses, and nurse practitioners, among others. c These include assistants and aides in nursing, psychiatry, home health, occupational therapy, physical therapy, and dentistry among others.			

At the academic level, various entities are involved in population health activities though the majority may not have a clear designation to that effect. The following are the entities at UTRGV whose principle activities relate to population health.

- Department of Population Health, School of Medicine, UTRGV: Given that the department is still in its infancy, the type of expertise that will be available is still not determined.
- South Texas Border Health Disparities Center, College of Health Affairs, UTRGV: Director of Center. Given that centers are in transition at UTRGV, other personnel and corresponding expertise have not been identified.
- Border Health Office, College of Health Affairs, UTRGV: The Office has eight full-time employees: Director, Assistant Director, 3 health education coordinators, 1 community health worker coordinator,

2 administrative support. Additional community health workers and health educators are needed to support an expansion of the Office's outreach and health education activities.

The different schools and departments within UTRGV's School of Medicine and College of Health Affairs include over 250 faculty members whose primary mission is to educate the future health workforce and to advance health sciences. Other institutions of higher education within the Rio Grande Valley whose activities support population health are UTHealth School of Public Health, Brownsville Regional Campus and the Texas A&M Health Science Center - McAllen Campus who contribute at least a dozen faculty members with public health expertise.

Despite the large number of faculty, some gaps in population health sciences at UTRGV include the following fields: biostatistics, epidemiology, evaluation, database management, and GIS mapping, among others. While some of the gaps need to be addressed at the institutional level, there is a need to capitalize on various resources available through the UT System and the UT Population Health initiative.

SECTION 8: ASSESSMENT OF ADDITIONAL NEEDS

The development of the CoPHII strategic plan for UTRGV has drawn attention to additional needs to be assessed as we move forward with the implementation phase of this strategic plan in the short to medium term.

- Comprehensive community needs assessment for the catchment area.
- Assessment of awareness of health disparities, the social determinants of health, and population health among future health and medical professionals (UTRGV School of Medicine and College of Health Affairs students).
- Assessment of UTRGV faculty expertise in population health.
- Assessment of attitudes toward telehealth in the community: As telehealth is touted as one of the strategies to improve access to health care services in rural and underserved communities, it is important to garner an understanding of attitudes towards this approach as well as understand the logistical challenges to adopting that approach in our population (e.g., internet access, computer literacy, etc.).
- Assessment of mental health needs in the community: Mental health is a "state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community."[10] Thus to promote mental health at the population level, it is important to support well-being and to prevent mental disorders by addressing, in addition to individual attributes, the socioeconomic, cultural, and environmental factors that determine mental health. Additionally, health systems need to be equipped to treat and rehabilitate those impacted by mental disorders. Apart from data pointing to limited resources for mental health treatment in the Rio Grande Valley, secondary data sources provided little to no information on the burden of mental health disorders at the county level. Similarly, few research studies investigate mental health needs at the population level. An assessment of mental health needs and burden is important to properly direct resources and to measure progress of interventions directed at improving the mental well-being of area residents. This mental health needs assessment can be led by UTRGV's UT System Population Health Mental Health Workgroup.
- Assessment of utilization of preventive health care services among the newly insured under the Patient Protection and Affordable Care Act (ACA): The passage of ACA in 2010 has allowed more than 20 million Americans to obtain coverage under its provisions, in turn improving access to primary care and overall health status. Little information, however, is available on how obtaining health care coverage is impacting the utilization of health care services, especially among minority groups many of whom are obtaining and using health insurance for the first time. While it is expected that having health insurance will, by increasing access to primary and preventive care, reduce the inefficient and expensive utilization of health care services, such as emergency room visits, preliminary evidence suggests otherwise. Some studies have revealed that gaining health care coverage may actually translate into increased utilization of emergency room visits, especially among Hispanics. It is thus of paramount importance to understand the utilization of health care services especially preventive care

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[10] World Health Organization.

and the reasons behind any ineffective utilization in order to ensure optimal population-level benefits from the ACA's expansion of health care access.

- o *Postscript*: With the looming repeal of the ACA, additional assessments are key to ensure a replacement that meets the needs of vulnerable population groups.

- Assessment of the health care needs of veterans in the Rio Grande Valley: Veterans constitute 5% of our catchment area's civilian population 18 years and over. Among the 40,363 veterans in the area, 35% have a disability, a rate that is higher than the state and national disability rates of 27%.[11] Not much information is available of the health care needs of this group at the county level.

- Assessment of community health workers (CHWs) training needs: Gaining the perspective of CHWs is important to develop training modules that not only support their primary health assignments but that also meet their career aspirations and self-efficacy.

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[11] U.S. Census Bureau, 2010-2014 American Community Survey 5-Year Estimates

SECTION 9: PLAN AND STRATEGY TO IMPLEMENT POPULATION HEALTH

Population health is commonly defined as the "the health outcomes of a group of individuals, including the distribution of such outcomes within the group."[12] The focus on population health reflects the shift in healthcare from a sick model of health to a preventive model. A population health approach requires attention to the social determinants of health and an understanding of the complex interaction between health determinants and health outcomes, emphasis on preventive care, and awareness of the important contribution of multiple stakeholders. The latter element brings attention to the need for academic-practice partnerships as a conduit for population health improvement. We are hoping that the CoPHII strategic plan for UTRGV will serve as a starting point for these partnerships with the objective of improving the health of the Rio Grande Valley's population and reducing the area's health inequities.

Figure. A Schematic Framework for Population Health Planning
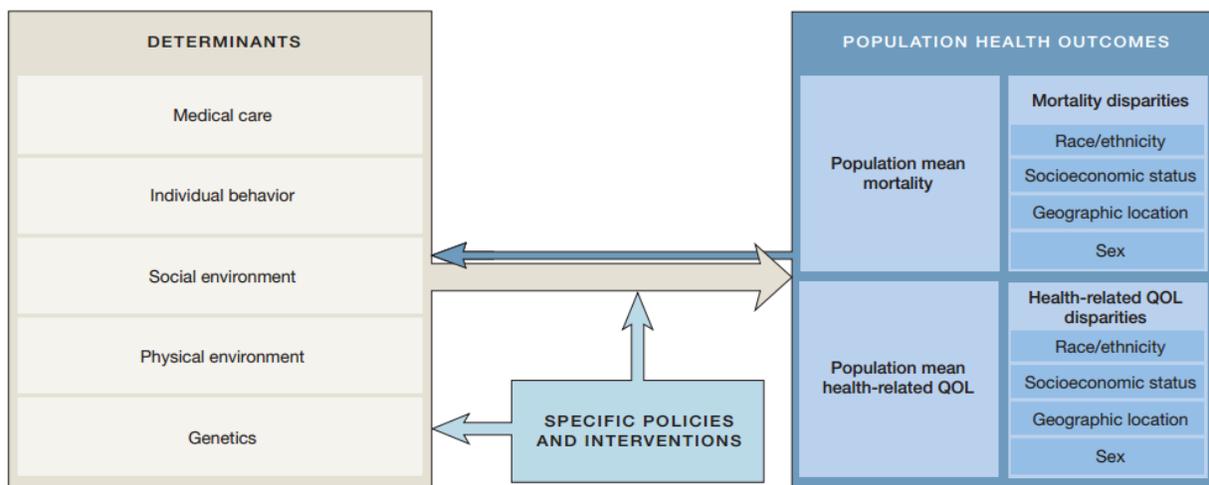
The right side conceptualizes broad population health outcomes. The left side represents the determinants of population health outcomes. The quadrants in the outcomes component are arbitrarily sized equally, as are both the disparity domains within outcomes and the determinant categories. QOL indicates quality of life.

Source: Kindig DA, Asada Y, Booske B. A population health framework for setting national and state health goals. *JAMA*. 2008;299(17):2081-3.

MISSION

To position UTRGV as a national leader in population health innovation through productive community partnerships, educational excellence, and a rigorous research agenda focused on improving population health in the Rio Grande Valley and beyond.

CENTER FOR POPULATION HEALTH EQUITY

Our CoPHII strategic plan capitalizes on our unique geographic location and corresponding sociodemographic characteristics. It creates an integrated infrastructure that represents a unique partnership model between a general academic institution, primarily the College of Health Affairs (COHA),

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[12] Kindig DA, Stoddart G. What is population health? *Am J Public Health*. 2003,93:366-369.

and a School of Medicine (SOM). Through a collaborative Center for Population Health Equity we will build on the expertise of the South Texas Border Health Disparities Center (COHA), the Health Disparities Scholars Program (COHA), the Border Health Office (COHA), and the Department of Population Health (SOM), among many others. The Center for Population Health Equity will provide the venue for implementing many of the plan's strategic priorities outlined below. Most importantly, the Center will aim to establish UTRGV as the premier source for furthering the understanding of "Border" health issues and for informing policy decisions at the state, national, and binational levels.

Codes for implementation phases

The strategic priorities and corresponding goals for UTRGV's CoPHII strategic plan are comprehensive, wide in scope, and long-term in nature. This renders achieving all these goals difficult during the second year of CoPHII. However, we do feel that a comprehensive vision to guide our efforts is needed as we attempt to implement small steps towards improving population health. The following letters in superscript (a, b, and c) next to each goal/objective indicates the planned phase of implementation.

a: Planned for implementation during the second year of CoPHII

b: Planned for partial implementation during the second year of CoPHII

c: Planned for future implementation

STRATEGIC PRIORITY 1: COMMUNITY RESOURCE

Position UTRGV as a community resource for population health innovation and improvement through the provision of services that help identify health priority areas, that guide action on population health, and that assist in evaluating the impact of health policies and interventions.

Goal 1.1 Create platforms for ongoing population health surveillance through the systematic collection and dissemination of metrics that can guide action on population health and allow assessment of the progress/impact of interventions at the population level

Objective 1.1.A Identify a set of key metrics that capture the needs of community stakeholders and the identified set of priorities in this strategic plan [a]

Multiple metrics exist with no clear consensus on the best ones to assess population health. In order to identify the metrics that capture the community's needs, the following process will be adopted: (1) a conceptual framework guiding metrics selection will be identified; (2) stakeholder and community feedback will be sought; (3) the current use of these measures will be assessed; (4) measures will be selected based on the following criteria (useful: meaningful (fit the purpose) and easy to understand; actionable; accessible: easy to measure; and representative of the community); (5) a plan will be developed to systematically collect and update selected metrics.

- The following summary measures of population health and well-being[13] constitute a good starting point for discussions aiming to identify the metrics capturing community needs.

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[13] Kottke, T. E., J. M. Gallagher, S. Rauri, J. O. Tillema, N. P. Pronk, and S. M. Knudson. 2016. *New summary measures of population health and well-being for implementation by health plans and accountable care organizations*. National Academy of Medicine, Washington, DC. https://nam.edu/wp-

1. Current health: disability-adjusted life years (DALYs) comprising years of potential life lost, an estimate of the burden of death on a population, and years lived with disability, an estimate of the burden of nonfatal disease and disability on a population.
2. Sustainability of health: 6 health behaviors (tobacco use, fruit and vegetable consumption, physical activity, alcohol use, sleep adequacy, and healthy thinking) plus a clinical preventive services index that indicates adherence to evidence-based preventive care guidelines
3. Subjective well-being: life satisfaction (7 domains that affect subjective well-being: emotional functioning, physical functioning, career satisfaction, adequacy of financial resources, social/interpersonal relations, community support, and meaning and purpose).

- Healthy Communities Assessment Tool (HCAT) provides planners, community development and neighborhood advocates, and policy makers an understandable way to evaluate community health. The HCAT provides a cumulative ranking of the social, physical and economic environment of every neighborhood based on Healthy Community Index (HCI) core indicators (http://hcat.providenceri.com/indicators)
  1. Demographic and contextual
  2. Economic health
  3. Educational opportunities
  4. Employment opportunities
  5. Environmental hazards
  6. Health systems and public safety
  7. Housing
  8. Natural areas
  9. Neighborhood characteristics
  10. Social cohesion
  11. Transportation

Objective 1.1.B Collect baseline data on identified key metrics [a]

Objective 1.1.C Design an electronic platform for dissemination of metrics [b]

- Identify key personnel (web designer, database management, etc.)
- Identify expertise within UT System Population Health to assist with design

Goal 1.2 Build expertise in key areas supporting population health sciences (e.g., epidemiology, evaluation, biostatistics, GIS mapping, etc.) [b]

Based on discussions with community organizations and feedback from the Advisory Group, the need for expertise to support the advancement of important community efforts to improve population health was recognized as a key need. Of tantamount urgency was the need for assistance with evaluation.

Objective 1.2.A Support faculty appointment lines in much needed areas of expertise such as program evaluation and biostatistics [c]

Objective 1.2.B Establish a database of faculty with expertise in different content areas related to population health and the area's health priorities [a]

Objective 1.2.C Identify and capitalize on UT System Population Health resources to support institutional and community needs [a]

Objective 1.2.D Review existing institutional policies to ensure a policy structure that facilitates collaboration between UTRGV and community organizations focused on promoting population health [b]

- Review existing memoranda of understanding between UTRGV and community organizations and revise, if needed, to reflect the collaborative relationship needed for population health improvement
- Develop workshops that support the needs of community organizations in their population health efforts (e.g., evaluation and assessment)

Goal 1.3 Establish an inventory of evidence-based approaches and policies to promote population health at the municipal, school, business, and community levels and develop a support infrastructure to assist with the implementation of these approaches [b]

Objective 1.3.A Identify criteria for the selection of evidence-based approaches and policies that correspond to the area's identified health priorities

Objective 1.3.B Develop a support infrastructure to assist community organizations with the implementation of these approaches (e.g., linkages to expertise, evaluation)

Goal 1.4 Support the accreditation of local public health agencies [c]

Goal 1.5 Participate in conversations supporting the development and implementation of telehealth services [b]

Objective 1.5.A Identify local efforts promoting and developing telemedicine platforms

Objective 1.5.B Identify resources needed to support the development of a telemedicine platform

Objective 1.5.C Seek the needed expertise and resources at the local, UT System, state, and national levels

Goal 1.6 Maintain a network of key community stakeholders promoting population health [a]

Objective 1.6.A Expand on the current UTRGV CoPHII Advisory Group to include other community and UTRGV stakeholders

In addition to current members of the UTRGV CoPHII Advisory Group, we will invite other stakeholders that include representatives from health systems, clinical practice, school districts, city officials, and political representatives, among others. We will also expand the representation of other UTRGV Colleges, such as the College of Liberal Arts, to ensure an interdisciplinary approach to our strategies.

Objective 1.6.B Organize an annual conference to bring together population health stakeholders across the community, to highlight UTRGV's efforts and available resources supporting population health, and to deliver training workshops for the population health workforce [c]

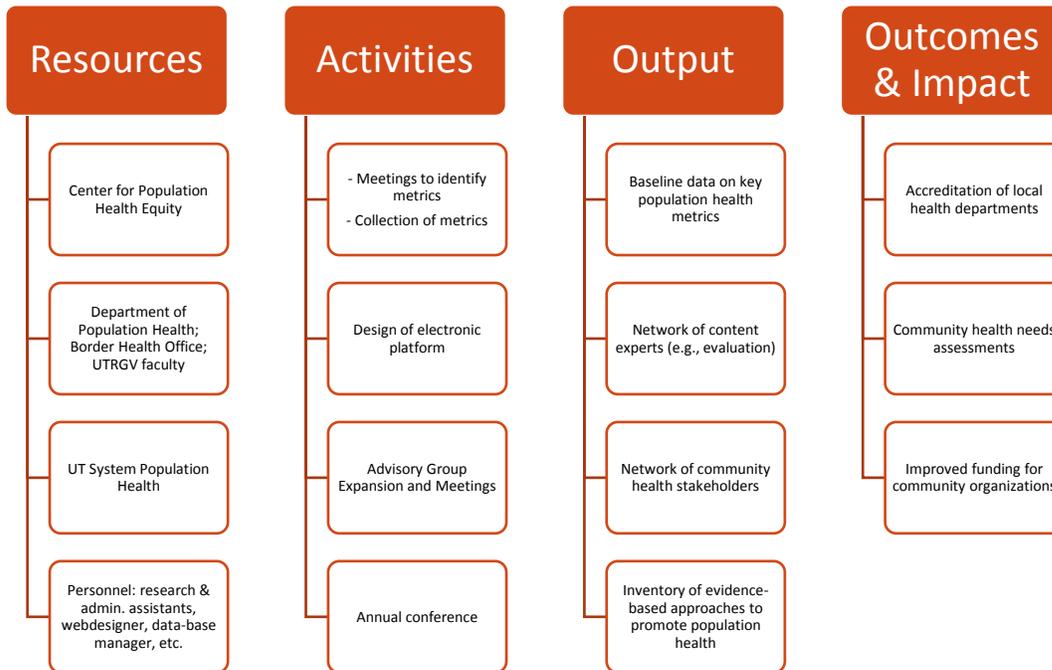Figure 2 presents the logic model for Strategic Priority 1.

Resources	Activities	Output	Outcomes & Impact
Center for Population Health Equity	- Meetings to identify metrics - Collection of metrics	Baseline data on key population health metrics	Accreditation of local health departments
Department of Population Health; Border Health Office; UTRGV faculty	Design of electronic platform	Network of content experts (e.g., evaluation)	Community health needs assessments
UT System Population Health	Advisory Group Expansion and Meetings	Network of community health stakeholders	Improved funding for community organizations
Personnel: research & admin. assistants, webdesigner, data-base manager, etc.	Annual conference	Inventory of evidence-based approaches to promote population health	

Figure 2. Logic Model for Strategic Priority 1: Community Resource

STRATEGIC PRIORITY 2: POPULATION HEALTH WORKFORCE DEVELOPMENT

Build a diverse health workforce with a keen understanding of the determinants of population health and health inequities and with the cultural skills necessary to serve an increasingly diverse population.

Goal 2.1 Integrate a population health framework in the education of health professionals to raise awareness of the social determinants of health and their role in influencing health outcomes and in leading to health inequities [b]

Recent trends in health and health care delivery have highlighted the need for a shift from a sick to a preventive model of health and have resulted in a growing focus on the importance of the social determinants of health to address health disparities and effectively improve population health. This focus is shown through several recent announcements such as: (1) establishment by the Centers for Medicare & Medicaid Services of an Accountable Health Communities initiative to focus on the social determinants of health (Jan 5, 2016); (2) publication of the Institute of Medicine's (IOM) *A Framework for Educating Health Professionals to Address the Social Determinants of Health* (March 7, 2016); and (3) changing the name of the Institute of Medicine to Health and Medicine Division, emphasizing IOM's "increased focus on a wider range of health matters" (March 18, 2016). The UT System's CoPHII initiative and the inclusion of a Department of Population Health in the structure of its two new medical schools reflects the institution's visionary leadership and its commitment to improving the health of our communities through a broader set of approaches and strategies that aim to address the root causes of poor health. Educating health and medical professionals to embrace population health concepts is one example of such a strategy,

ensuring a future health workforce with unique skill sets embracing a holistic, coordinated approach to health and health care delivery.

Objective 2.1.A Utilize a guiding framework, such as the National Academies of Sciences, Engineering, and Medicine's A *framework for educating health professionals to address the social determinants of health*,[14] to integrate population health components in health and medical professions education

- Review existing curricula at the School of Medicine (SOM) and College of Health Affairs (COHA) to identify areas where population health elements can be integrated
- Establish a Curricular Advisory Group
- Meet and discuss venues for integration with SOM and COHA leadership, faculty, and students
- Establish the Center for Population Health Equity as the resource and venue for expertise and educational experiences promoting awareness of population health and the social determinants of health

Goal 2.2 Develop a Population Health Certificate for medical and allied health professionals/ students [b]

Objective 2.2.A Start conversation with curriculum and program coordinators at UTRGV's School of Medicine, College of Health Affairs, College of Liberal Arts, and the Office of Continuing Education

Objective 2.2.B Establish a Curricular Advisory Group to identify (1) target audience; (2) course sequence (e.g., Introduction to Population Health, Epidemiology, Social Determinants of Health, Healthcare Policy, Public Health Internship and/or Research Experience); and (3) delivery platform (e.g., online, blended, face-to-face, potential track in existing Master of Science in Health Sciences degree program)

Goal 2.3 Develop an interprofessional training infrastructure for student teams trained in assisting with project needs for population health researchers and local public health organizations [a]

Objective 2.3.A Identify consultants with similar programs at other institutions of higher education

Objective 2.3.B Capitalize on the expertise of the South Texas Border Health Disparities Center in training student teams and leading community-based research projects promoting awareness of health disparities
- Six years of collaboration with the University of Michigan's School of Public Health PHAST (Public Health Action Support Team) program
- Three years of experience leading student teams to conduct research projects at Operation Lone Star, an emergency preparedness exercise providing free health care services to area residents

Objective 2.3.C Explore venues to link and imbed the training infrastructure to existing degree plans (experiential learning opportunities, internship courses, practicum courses, research courses, etc.)

Objective 2.3.D Develop the infrastructure needed for a student team prepared to respond to data collection needs in emergency situations
- Identify the data needs of difference emergency preparedness organizations

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[14] National Academies of Sciences, Engineering, and Medicine. 2016. *A framework for educating health professionals to address the social determinants of health*. Washington, DC: The National Academies Press.

- Develop and approve an Institutional Review Board application that incorporates the student infrastructure and identified data needs
- Work closely with the office of research to develop protocols for expedited approval of modification requests

Goal 2.4 Advance training and certification opportunities for community health workers (*promotores de salud*) [c]

Objective 2.4.A Identify training needs of community health workers (CHWs)

Objective 2.4.B Assess existing resources for CHW training

Objective 2.4.C Develop workshops and training modules that meet the needs of CHWs

Figure 3 presents the logic model for Strategic Priority 2.
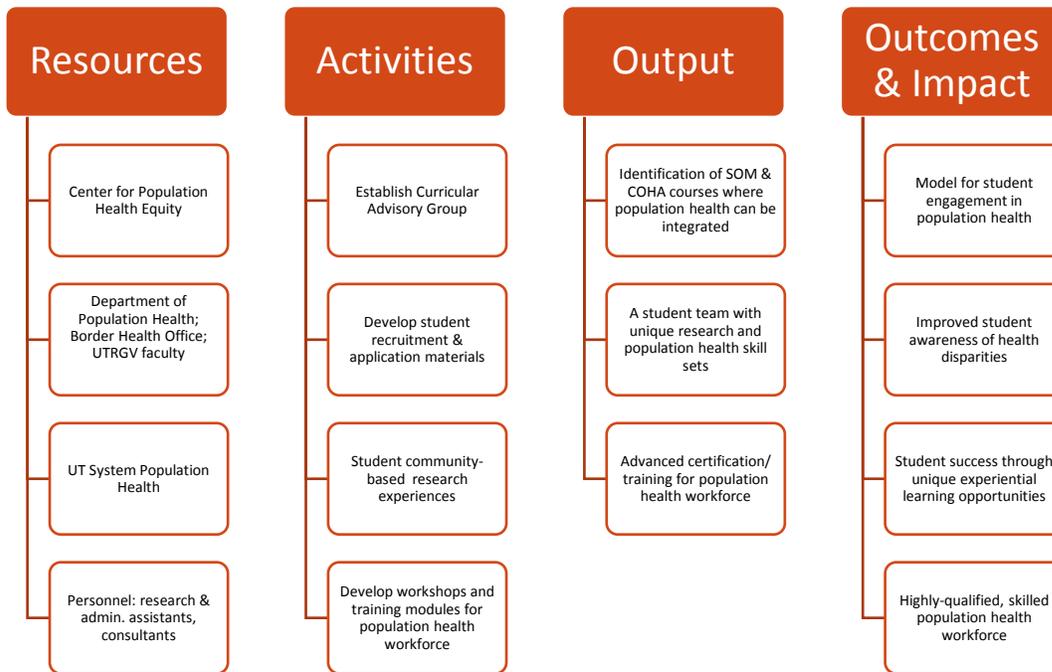
Figure 3. Logic Model for Strategic Priority 2: Population Health Workforce Development

STRATEGIC PRIORITY 3: POPULATION HEALTH SCIENCES INNOVATION

Advance population health sciences innovation through a transformative research agenda that responds to key trends in health and health care and their corresponding impact on population health.

Similar to any dynamic sector, the health care sector is continuously evolving and responding to technological advances (e.g., ehealth, health information technologies, telehealth), changing political environments (e.g., health care reform), new care delivery models and the corresponding investment and reimbursement models (e.g., accountable care organizations, patient-centered medical homes,

telemedicine), among others. Each development is bound to have its impact on population health. That is why it is important that UTRGV is at the forefront of these key trends.

Goal 3.1 Conduct a biennial population-based survey that responds to key border and minority health policy information needs at the regional, state, and national levels [b]

Over the past decade and more so recently, border and minority issues have gained prominence in our state and national policy agendas. Yet few of these agendas are driven by evidence-based information that is generated at local levels. The Center for Population Health Equity will address this gap through a biennial population-based survey on a most relevant policy topic affecting Hispanic and border populations and their health. In the process, we aim to establish UTRGV as a nationally recognized premier border resource for informing population health policies.

Objective 3.1.A Assess through extensive interaction with Advisory group members, local policymakers, and community stakeholder the current key areas of policy relevance to the border community

Objective 3.1.B Conduct a population-based survey in response to an identified policy priority

Objective 3.1.C Disseminate study findings to key local, state, and national policymakers, in coordination with UTRGV leadership

Goal 3.2 Support innovative interdisciplinary research projects that promise to advance population health sciences [c]

Objective 3.2.A Identify on an annual basis key thematic research priorities that reflect emerging trends in population health and health services

Objective 3.2.B Support a population health pilot projects program that helps build interdisciplinary collaborative teams and promotes private-public partnerships

Objective 3.2.C Utilize the large volume of evidence-based approaches and best practices to population health improvement through (1) synthesis of existing literature on best approaches to promote population health, specifically for priority areas identified in this report, (2) dissemination of these approaches, and (3) support for large-scale implementation of evidence-based approaches to address priority areas

Objective 3.2.D Connect the various community health promotion and health education activities with the academic community to build evaluation and research capacity among community organizations

Goal 3.3 Develop the infrastructure for disease registries that link potential research participants with the academic community [c]

Objective 3.3.A Identify existing registries in the Rio Grande Valley and assess their effectiveness at achieving the objectives of disease registries

Objective 3.3.B Identify consultants and expertise needed (e.g., database management)

Objective 3.3.C Identify registry infrastructure components: system requirements, system for database build-up (potential for integrating registry within electronic health records), database items (name, email, phone number, gender, diagnosis, willingness to participate in studies, etc.), system for regular updates

Objective 3.3.D Establish a framework for access requirements by researchers (no direct contact, purpose of study, extent of involvement, incentives, contact information)

Goal 3.4 Build a network of community organizations and academicians that facilitates the creation of collaborative research teams aiming to advance population health [c]

Objective 3.4.A Establish a community-university research network

Figure 4 presents the logic model for Strategic Priority 3.

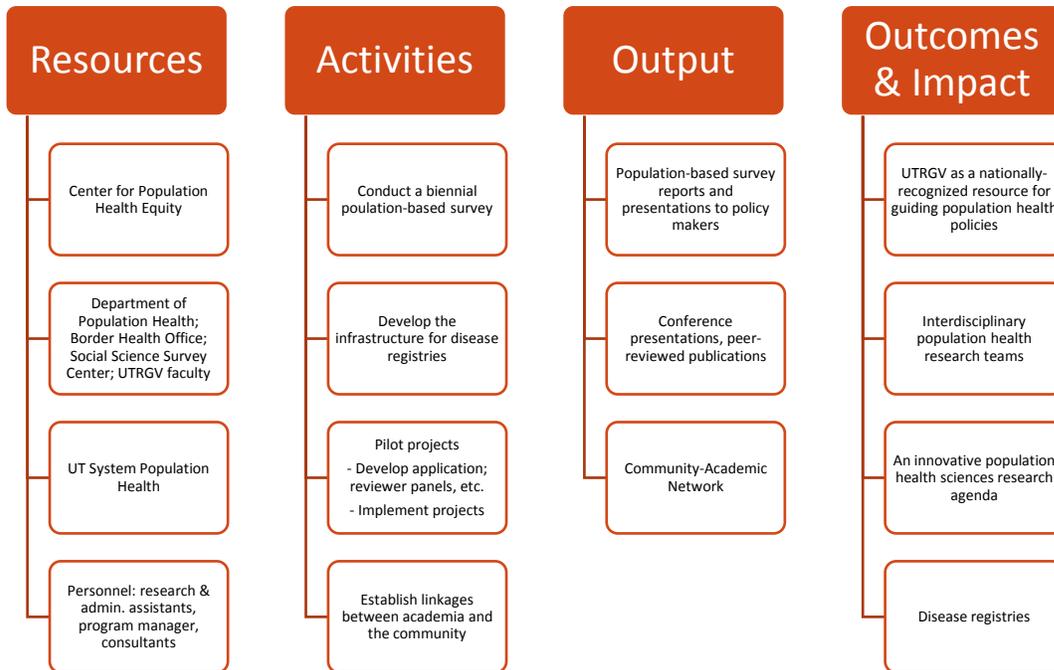| Resources	Activities	Output	Outcomes & Impact
Center for Population Health Equity	Conduct a biennial poulation-based survey	Population-based survey reports and presentations to policy makers	UTRGV as a nationally-recognized resource for guiding population health policies
Department of Population Health; Border Health Office; Social Science Survey Center; UTRGV faculty	Develop the infrastructure for disease registries	Conference presentations, peer-reviewed publications	Interdisciplinary population health research teams
UT System Population Health	Pilot projects - Develop application; reviewer panels, etc. - Implement projects	Community-Academic Network	An innovative population health sciences research agenda
Personnel: research & admin. assistants, program manager, consultants	Establish linkages between academia and the community		Disease registries

Figure 4. Logic Model for Strategic Priority 3: Population Health Sciences Innovation

SECTION 10: ENVIRONMENTAL IMPACT ASSESSMENT

The proposed CoPHII strategic plan to improve the catchment area's population health represents a multi-pronged, long-term strategy for UTRGV to play a key role in supporting existing community efforts and in serving as an incubator for innovative ideas and approaches that can serve as a model for population health improvement in disadvantaged minority populations along the Texas-Mexico border. The different strategies outlined in this report represent a unique opportunity for the UT System and for UTRGV to capitalize on the border area's unique sociodemographic profile and the great level of enthusiasm surrounding the creation of UTRGV and the opening of the new School of Medicine.

Our proposed strategies come with implementation challenges. These challenges, however, can be overcome by ensuring institutional support and securing stakeholder buy-in, both elements that we have a record of being committed to and successful at. Most importantly, failure to move forward with the proposed steps represents a myriad of **missed opportunities** that include, but are not limited to, the following:

- Establishing UTRGV, its School of Medicine, and College of Health Affairs as the premier population health resource for Hispanic minority groups and disadvantaged populations
- Establishing UTRGV as a community-engaged institution, in the process building good will with various stakeholders, a key component to facilitate inter-sectoral collaborations to improve population health
- Contributing to student success, a key strategic priority for UTRGV and a Quantum Leap for UT System, through enhanced educational experiences that promote unique experiential learning opportunities focused on population health and capitalizing on the area's unique sociodemographic profile
- Providing UTRGV's medical and health professionals with unique skill sets rooted in population health concepts that embrace a holistic, coordinated approach to health and health care delivery
- Generating evidence to support population health improvement approaches in disadvantaged minority groups
- A vision for health equity that is much needed for a border community burdened by poverty and a wide range of inequities

Perhaps none of these missed opportunities is more pronounced than that which is **particularly relevant and timely at a critical period in our nation's history**: **establishing UTRGV as the premier source for furthering the understanding of the Border and for informing important policy decisions in our state and nation's capitals.** We hope that the strategic priorities and goals proposed in this CoPHII strategic plan will support new policies at the institutional, community, state, and national levels to improve population health.