Annual Research Report
Calendar Year 2017
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Research Overview Calendar Year 2017

Vision
Stronger Communities
Healthy People
Our Tradition

Mission
The Texas A&M School of Public Health is committed to transforming health through interdisciplinary inquiry, innovative solutions, and development of leaders through the Aggie tradition of service to engage diverse communities worldwide.

Values
Accountability: Meaningful Impact
Global and diverse: Our research crosses borders
Generosity: Through selfless service
Integrity: In everything we do
Excellence: In teaching, research, service, and practice
Social Justice
Professionalism: Leaders paving the way
Honor: Respect for all

Purpose: Research is an integral part of the Texas A&M School of Public Health mission and activities with the majority of the nearly 70 faculty members engaged in sponsored research and service activities. This report summarizes School of Public Health faculty projects, publications, presentations, and research interests during Calendar Year 2017.

Highlights: Calendar Year 2017 was marked by number of key highlights including growth in research expenditures and number of publications; expansion of programs designed to provide pilot funding support; and establishment of new programs with an emphasis on global health.

Initiatives: In an effort to provide seed funding for innovative and promising research, the School of Public Health awarded the third round of the Delta Omega Research and Development Initiative (REDI) pilot grants in May 2017. Awarded through a competitive application and external review process, four SPH investigators received awards of $25,000 each to support their respective research projects.

New Funding: A number of large scale highly competitive grants and contracts were secured during the year from diverse funders including the Cancer Prevention Research Institute of Texas (CPRIT), National Science Foundation (NSF), National Institutes of Health (NIH), United States Department of Agriculture (USDA), State of Texas, and private foundations including the Robert Wood Johnson Foundation. A few of the many awards received by SPH investigators from across departments are noted below. A full listing of awards is included this report.

Dr. Jane Bolin (Co-PI), David McClellan (PI). Continuation/Expansion of Texas A&M’s Breast and Cervical Cancer Prevention Program for Underserved Women through a Family Medicine Residency, CPRIT

Dr. Jennifer Horney, Dr. Thomas McDonald (Core Pls) [Ivan Rusyn, Primary PI]. Superfund: Comprehensive Tools and Models for Addressing Exposure to Mixtures during Environmental Emergency-Related Contamination Events Community Engagement Core and Translational Research Core, NIH/NIEHS

Dr. Natalie Johnson. Mechanisms of Particulate Matter Driven Infant Respiratory Disease, Outstanding New Environmental Scientist (ONES), NIH/NIEHS

Dr. Hye Chung Kum. Privacy Preserving Interactive Record Linkages (PPIRL), Patient Centered Outcomes Research Institute (PCORI)

Dr. E. Lisako McKyer. Evaluation of the Texas Rape Prevention and Education Program, CDC through the Office of the Attorney General of Texas

Dr. Darcy McMaughan. Developing a Provider Tool to Improve Health Care Transition Outcomes through the Promotion of Medical Homes for CSHCN, Texas Department of State Health Services

Dr. Ranjana Mehta. RAPID: Human-Robotic Interactions during Hurricane Harvey Recovery Operations, National Science Foundation (NSF)

Dr. Barbara Quiram (PI), Dr. David Washburn (Co-PI). Weaving the Tasina Luta: A Community-based Participatory Research Approach to Implementation and Engagement with a Tribal Public Health Plan, Robert Wood Johnson Foundation

Dr. Joseph Sharkey. Empowering Rural Communities and Families: Prevention Chronic Disease through Experiential Nutrition and Education in Limited-Resource Children and Their Families in the Rural North Olympic Peninsula of Washington, United States Department of Agriculture National Institute of Food and Agriculture (USDA NIFA)

New Programs: During 2017, a number of new programs were formally established at SPH to enable researchers with similar interests to coalesce research interests, expertise, and projects. The Program on Public and International Engagement for Health (PIEH) was approved in Spring 2017. Under the direction of Dr. Bernard Appiah, Department of Environmental and Occupational Health, the program’s mission is to facilitate transformative learning and scholarship in public engagement globally. The Program in Global Health Research was approved in Fall 2017. Under the direction of Dr. Brian Colwell, Health Promotion and Community Health Sciences, the program advances public health research, dissemination of findings, and translation of research into practice across the world.

Student Awards and Recognition: During 2017, the school selected the winners of the Student Research Excellence Award. This award recognizes outstanding students who have demonstrated excellence in the design, conduct, execution, and impact of research. The 2017 winners were Louise Myatt (master’s level winner) and Amber Trueblood (doctoral level winner). Also, in Spring 2017, SPH students participated in SPH’s 12th Annual Student Research Poster Contest. The top two winners were invited to compete for slots at the National Delta Omega Sponsored Student Poster Contest held at APHA in Fall 2017.
The Texas A&M School of Public Health strives to support faculty in their research activities, including assistance in the development of new extramurally supported investigator-initiated research. The Delta Omega Research Enhancement and Development Initiative (REDI) program provides small pilot funding awards to SPH investigators in support of innovative, novel, and interdisciplinary ideas with a high probability of leading to significant external funding.

2017 Award Grantees

Pictured Left to Right: Timothy Callaghan, S. Camille Peres, Itza Mendoza, and Nicholas Taylor

Timothy Callaghan, PhD, Health Policy and Management
Community Health Workers Experience with Hispanic/Latino Health Access

S. Camille Peres, PhD, Environmental and Occupational Health
Expertise Acquisition with Industrial Tasks: How Does Procedure Use Change and When

Itza Mendoza-Sanchez, PhD, Environmental and Occupational Health
Bacterial kinetics and antibiotic resistance in soils due to antibiotic contamination

Nicholas Taylor, PhD, Epidemiology and Biostatistics
Integrative gene expression profiling of primary colorectal cancer and adjacent extratumoral microenvironment
Research Centers and Programs

Center for Community Health Development
established initially as a CDC funded Prevention Research Center
Co-Director: Jim Burdine, DrPH
Co-Director: Lisako McKyer, PhD

Program for Asthma Research & Education
Director: Genny Carrillo, MD, MPH

Program on Disability Research & Community-Based Care
Director: Darcy McMaughan, PhD

Program on Global Health Research
Director: Brian Colwell, PhD

Program for Health Policy Research
Director: Michael Morrissey, PhD

Program on Public & International Engagement for Health
Director:
Bernard Appiah, DrPH, MDC, MS, BPharm

Program on Reproductive Health & Child Health
Director: Brandie Taylor, PhD

Program for Research & Outreach Engagement on Nutrition & Health Disparities Solutions
Director: Joseph R Sharkey, PhD

USA Center for Rural Public Health Preparedness
funded by multiple external grants
Director, PI: Barbara Quiram, PhD

Program for The Environment & Sustainability
Director: Virender Sharma, PhD
ACTIVE GRANTS & CONTRACTS CY2017

**Appiah, Bernard.** Identifying Culturally Relevant Interventions to Increase Medication Adherence among Adults with Diabetes or Hypertension, Delta Omega Research Enhancement and Development Initiative Program (REDI), School of Public Health Pilot Funding Program, $25,000 (2016-2017).

**Appiah, Bernard.** Using cellphone caller tunes to promote blood donation in Sub-Saharan Africa: A feasibility study in Ghana, Texas A&M PESCA Grant Program, $10,000 (2016-2017).


**Appiah, Bernard.** Identifying Culturally Relevant Interventions to Increase Medication Adherence among Adults with Diabetes or Hypertension, Delta Omega Research Enhancement and Development Initiative Program (REDI), School of Public Health Pilot Funding Program, $25,000 (2016-2017).

**Appiah, Bernard.** Using cellphone caller tunes to promote blood donation in Sub-Saharan Africa: A feasibility study in Ghana, Texas A&M PESCA Grant Program, $10,000 (2016-2017).


**Appiah, Bernard.** Radio for Integrated Health and Agriculture in Ghana (RIHAG), Texas A&M Agrilife, USAID, $25,000 (2017-2018).*

**Benden, Mark.** Texas A&M University Occupational Safety & Health Training Program (competitive 5 year renewal), NIOSH, $516,453 (2012-2017) [ERGC].

**Benden, Mark.** Impact of Varidesk® usage and gamification concept on sedentary behavior at Texas A&M University, Varidesk, $50,000 (2017-2018) [ERGC].

**Benden, Mark.** External Safety Support, Texas Transportation Institute, $75,000 (2010-2017) [ERGC].

**Benden, Mark.** Use of Stand-Site Workstations: Does the Implementation of Behavioral Interventions Increase the Usage of Site-Stand Desks, Office of Ergonomics Research Committee, $25,500 (2016-2017) [ERGC].

**Bolín, Jane.** CPRIT Dissemination: Training CHWs for Cancer Education and Navigation, Cancer Prevention & Research Institute of Texas (CPRIT), $300,000 (2015-2018) [SRHRC and CCHD].


**Bolín, Jane and Alva Ferdinand.** Southwest Rural Health Research Center: Rural Health Research Grant Program Cooperative Agreement, Health Resources and Services Administration (HRSA), $2,800,000 (2016-2020) [SRHRC].

**Bolín, Jane.** Southwest Rural Health Research Center, Year 1 Project 4, The Burden of Diabetes in Rural America, Health Resources and Services Administration (HRSA), $122,377 (2016-2017) [SRHRC].

**Bolín, Jane.** Southwest Rural Health Research Center, Year 2 Project 4, Rural Urban Differences in Chronic Diseases and Delay of Needed Care, Health Resources and Services Administration (HRSA), $122,004 (2017-2018) [SRHRC].


**Bolín, Jane, Co-PI (McClellan, David, PI).** Continuation and Expansion of Texas A&M’s Colorectal Cancer Screening, Training, Education, and Prevention Program, Cancer Prevention & Research Institute of Texas (CPRIT), $1,500,000 (2014-2018) [SRHRC].

**Bolín, Jane, Co-PI (McClellan, David, PI).** Continuation/Expansion of Texas A&M Breast and Cervical Cancer Prevention Program for Underserved Women through a Family Medicine Residency, Cancer Prevention and Research Institute of Texas, $1,350,000 (2017-2020) [SRHRC].

**Burdine, James N.** Developing a Statewide Health Impact Index for Informing Health-In-All-Policies Decision Making at State and Local Levels, Texas Medical Center Foundation, $37,500 (2017-2018) [CCHD].

**Callaghan, Timothy.** Community Health Worker Experiences with Hispanic/Latino Health Access, Delta Omega Research Enhancement and Development Initiative Program (REDI), School of Public Health Pilot Funding Program, $25,000 (2017-2018).*

**Carrillo, Genny.** Community-based Pediatric Asthma Education and Intervention, Knapp Community Care Foundation, $374,042 (2015-2017).


**Carrillo, Genny.** Health Outcomes of Water Insecurity in Urban Mexico: A Pilot Project, Texas A&M University CONACYT Program, $24,000 (2018-2018).*

**Cizmas, Leslie.** Impact of Nanoparticles on the Formation and Toxicity of Disinfection Byproducts during Water Chlorination, Delta Omega Research Enhancement and Development Initiative Program (REDI), School of Public Health Pilot Funding Program, $25,000 (2016-2017).

**Colwell, Brian.** Youth Tobacco Education Project, Texas Department of State Health Services (DSHS), $713,393 (2003-2019).

**Colwell, Brian.** ConDev, Texas A&M University & USAID/DFC Partnership: Evaluation of the Kinshasa School of Public Health, United States Agency for International Development (USAID), $293,789 (2015-2018).

**Ferdinand, Alva.** Examining the Impact of Gun Control Laws on Firearm-Related Morbidity and Mortality, Delta Omega Research Enhancement and Development Initiative Program (REDI), School of Public Health Pilot Funding Program, $25,000 (2016-2017).

**Ferdinand, Alva.** Southwest Rural Health Research Center, Year 1 Project 2: Examining the Legal Landscape in Rural America: Implications for the Healthcare Workforce, Access to Care, and Population Health, Health Resources and Services Administration (HRSA), $130,897 (2016-2017).
Ferdinand, Alva and Michael Morrissey. Southwest Rural Health Research Center, Year 2 Project 2: Malpractice Claims Among Rural and Urban Providers: Do State Telehealth Laws Make a Difference?, Health Resources and Services Administration (HRSA), $100,523 (2017-2018) [SRHRC].


Garcia, Tanya. Identifying High-Dimensional Neuroimaging Biomarkers Associated with Huntington’s Disease Motor-Onset, Delta Omega Research Enhancement and Development Initiative Program (REDI), School of Public Health Pilot Funding Program, $25,000 (2015-2017).


Han, Gang. Improved Survival Analysis in Personalized Cancer Therapy Trials, Delta Omega Research Enhancement and Development Initiative Program (REDI), School of Public Health Pilot Funding Program, $25,000 (2016-2017).

Han, Gang. Biostatistical Research Support Services, Yale, $9,000 (2017-2018).


Hong, Alicia. Health-Related Mobile Use Among Older Adults with Chronic Conditions, Delta Omega Research Enhancement and Development Initiative Program (REDI), School of Public Health Pilot Funding Program, $25,000 (2015-2017).


Horney, Jennifer. Texas OneGulf Strategic Environmental, Human Health and Safety: Disaster Research Response, subaward from Texas A&M University Corpus Christi (prime is Texas Commission on Environmental Quality), $171,693 (2016-2017).

Horney, Jennifer. EAGER-Citizen Science for Infrastructure Monitoring at the Neighborhood Level, subaward from TEES (prime is National Science Foundation), $2,706 (2016-2018).

Horney, Jennifer. NSF REU: Cyber-HealthGIS - Research Experiences at the Intersection of Cyber Infrastructure, GIS Science, Computer Science and Health, subaward from Texas A&M University (prime is National Science Foundation), $14,611 (2016-2018).

Horney, Jennifer. Pilot Project: Improving research translation via family-based risk communication: Health risks from exposure to recreational areas in Houston contaminated by Hurricane Harvey flooding, Center for Translational Environmental Health Research (CTEHR) (Prime is NIH), $72,130 (2017-2018).


Horney, Jennifer. RESTORE: Centers of Excellence, subaward from Texas A&M University Corpus Christi (prime is Federal Department of Treasury), $167,036 (2015-2018).

Horney, Jennifer (sub PI). Prioritizing Risks from Oil Spills, National Academy of Sciences, $14,703 (2017-2018).


Johnson, Natalie. Pilot Project: Maternal Benzene Exposure following Hurricane Harvey, Center for Translational Environmental Health Research (CTEHR) (Prime is NIH), $43,650 (2017-2018).

Kash, Bita. Innovative Managing Director, National Science Foundation I/UCRC, $576,815 (2014-2019) [CHOT].


Kash, Bita. Research Experiences for Undergraduates (REU), National Science Foundation I/UCRC, $40,000 (2014-2019) [CHOT].

Kash, Bita. Evaluation of Remote Patient Monitoring in Various Settings, Texas Children’s Hospital, $150,000 (2016-2019) [CHOT].

Kash, Bita. Effectiveness of Population Health Programs and Technology Tools, H.E.B., Inc, $150,000 (2016-2019) [CHOT].

Kash, Bita. Customer Service at Central Texas Veterans Health Care System’s Austin Outpatient Clinic (VA), Central Texas Veterans Health Care System, $150,000 (2015-2018) [CHOT].

Kash, Bita. The Role of Disparities in 30 -Day Hospital Readmission Rates, Main Line Health, $150,000 (2015-2018) [CHOT].


Kash, Bita. Exploring Future Models of Care Delivery in Texas, Texas A&M Health Science Center College of Medicine, $50,000 (2016-2017) [CHOT].

Kash, Bita. Virtual Care Clinics: What Can We Learn from Early Adopters, Careena Health, $50,000 (2016-2017) [CHOT].

Kash, Bita. CHOT: Site Contribution, University of Washington, $20,000 (2017-2018) [CHOT].
Kash, Bita. CHOT: Site Contribution, Florida Atlantic University, $20,000 (2017-2018) [CHOT].*

Kash, Bita. Development of Face-To-Face Training Course Curriculum, International Atomic Energy Agency (IAEA), $17,258 (2016-2018) [CHOT].

Kash, Bita. The Texas Project: Transitions Explored and Studies: Using Data to Prevention Readmissions in the Texas Medical Center, Texas Medical Foundation, $48,960 (2016-2017) [CHOT].

Kash, Bita. Translating the Healthy Texas Vision into a Framework for Action and Research, Coastal Bend Health Education Center, $150,000 (2015-2018) [CHOT].

Kum, Hye Chung. Virtual Social Genome Data Library: A Secure Data Infrastructure for Population Informatics; Seed Grant for Interdisciplinary Research in Big Data, TEES, Texas A&M University, and Texas A&M Health Science Center, $50,000 (2016-2017).


Kum, Hye Chung. Privacy Preserving Interactive Record Linkages (PPIRL), Patient Centered Outcomes Research Institute (PCORI), $1,019,641 (2017-2021).*

Kum, Hye Chung. EAGER: Collaborative Research: A Benchmark Data Linkage Repository, subaward from TEES (prime is National Science Foundation), $39,928 (2017-2019).*

McDonald, Thomas. Superfund: Comprehensive Tools and Models for Addressing Exposure to Mixtures During Environmental Emergency-Related Contamination Events (Research Translation Core), NIEHS, $324,430 (2017-2022).*


McKyer, E. Lisako. Southwest Rural Health Research Center, Year 1 Project 1: Are Rural Mothers and Infants Benefitting from National Women, Infants and Children (WIC) Policy?, Health Resources and Services Administration (HRSA), $123,866 (2016-2017) [SRHRC].

McKyer, E. Lisako. DFPS Program Evaluation, subaward from Texas A&M AgriLife Research (prime is DSHS), $154,851 (2016-2018) [CCHD].


McKyer, E. Lisako. Healthy Texas Babies Coalition Evaluation, Texas Department of State Health Services, $400,000 (2015-2017) [CCHD].

McKyer, E. Lisako. Texas Rape Prevention and Education Evaluation, Office of the Attorney General of Texas (Prime is Centers for Disease Control and Prevention), $467,505 (2017-2018) [CCHD].*


McMaughan, Darcy. STAR KIDS: Transition Outcomes Through the Promotion of Medical Homes for CSHCN, Texas Department of State Health Services (DSHS), $180,000 (2017-2019). *

McMaughan, Darcy. Developing a Provider Tool to Improve Health Care Transition Outcomes Through the Promotion of Medical Homes for CSHCN, Texas Department of State Health Services (DSHS), $180,000 (2017-2019). *

McMaughan, Darcy. Resident, Site, and Care Coordination Characteristics in Unlicensed Board and Care Homes: A Pilot Study in Houston, Texas, Delta Omega Research Enhancement and Development Initiative Program (REDI), School of Public Health Pilot Funding Program, $25,000 (2016-2017).


McMaughan, Darcy. Texas Rural Health Research Center, Year 1 Project 3: Provision of Skilled Nursing in Rural America: Skilled Nursing Facilities and Swing Beds, Health Resources and Services Administration, $119,387 (2016-2017) [SRHRC].


Mehta, Ranjana. Cognitive Ergonomics Study: Project F Chairs, Herman Miller, $64,877 (2017-2018).*

Mehta, Ranjana and Ashley Shortz. Development of Fatigue Risk Assessment Method for High Risk Environments, Southwest Center for Agriculture Health, Injury Prevention, and Education (SW Ag Center) [Prime is NIOSH], $9,968 (2017-2018).*

Mendoza, Itza. Influence of contaminant antibiotics on antibiotic resistance in soils, Texas A&M University PESCA Program, $25,000 (2017-2018).*

Mendoza, Itza. Spread of Contaminant Antibiotics and Antibiotic Resistance in Soils Due to Extreme Weather Events, Texas A&M University CONACYT Program, $24,000 (2017-2018).*

Mendoza, Itza. Farmworkers Risk of Exposure to Antibiotic-resistant Bacteria in Soils, Southwest Center for Agriculture Health, Injury Prevention, and Education (SW Ag Center) [Prime is NIOSH], $18,500 (2017-2018).*

Mendoza, Itza. Temporal Occurrence of Antibiotic-Resistant Genes in Public Areas Impacted by Hurricane Harvey, Center for Translational Environmental Health Research (CTEHR) [Prime is NIH], $36,375 (2017-2018).*
Mendoza, Itza. Bacterial kinetic and antibiotic resistance in soils due to antibiotic contamination. Delta Omega Research Enhancement and Development Initiative Program (REDI), School of Public Health Pilot Funding Program, $25,000 (2017-2018).

Miller Nimmons, Katherine. Colonia Integrated Care Program: Valley Interprofessional Development and Services (VIDAS), The University of Texas Rio Grande (prime is United Health Foundation), $40,576 (2015-2017) [CCHD].

Miller Nimmons, Katherine. Cancer Survivorship Curriculum Development and Implementation, Texas Department of State Health Services, $91,520 (2016-2017) [CCHD].

Miller Nimmons, Katherine. Tobacco Quit Line Evaluation and Outreach Assistance, Texas Department of State Health Services, $85,000 (2016-2017) [CCHD].

Miller Nimmons, Katherine. El Civics Integrated Education and Training, Workforce Solutions Brazos Valley Board, $30,000 (2017-2018) [CCHD].


Morrisey, Michael. All Kids Proposal for Special Projects, Subaward from The University of Alabama Birmingham (prime is Alabama Department of Health, Centers for Medicare and Medicaid Services), $32,000 (2017-2018).

Ohsfeldt, Robert. Technology Directed Advanced Radiation Therapy of Lung Cancer, subaward from the University of Texas Southwestern Medical Center (prime is Cancer Prevention & Research Institute of Texas CPRIT), $232,440 (2011-2017).


Ory, Marcia G. Brazos Valley Area Agency on Aging Evidence Based Programs for Seniors, Brazos Valley Council of Governments Area Agency on Aging, $76,200 (2013-2018) [CPHA].

Ory, Marcia G. Healthy South Texas, State of Texas, $5,000,000 (2016-2017) [CPHA].

Ory, Marcia G. Healthy South Texas, State of Texas, $5,000,000 (2018-2019) [CPHA].


Ory, Marcia G. Falls Reduction Education and Empowerment (FREE) Partnership, Subaward from United Way Tarrant County (prime is Administration on Aging), $163,083 (2015-2017) [CPHA].

Ory, Marcia G. SUSTAIN for Better Health and Health Care for Older Adults, DHHS Administration for Community Living (ACL), $895,189 (2016-2018) [CPHA].

Ory, Marcia G. Texercise Select: Building the Evidence-Base, Texas Department of State Health Services, $405,895 (2015-2017) [CPHA].

Ory, Marcia G. Texas Model for Dementia Capable Communities, Texas Council on Alzheimer’s Disease and Related Disorders (TARCC), $549,344 (2016-2018) [CPHA].

Ory, Marcia G. (Co-PI) and Jenna Anding (PI). Working on Wellness (WOW), Centers for Disease Control & Prevention, $2,688,990 (2014-2018) [CPHA].


Peres, S. Camille. Expertise Acquisition with Industrial Tasks: How does Procedure Use Change and When, Delta Omega Research Enhancement and Development Initiative Program (REDI), School of Public Health Pilot Funding Program, $25,000 (2017-2018).

Pickens, Adam. TTI (DOT): Evaluation of Safety Practices for Short Duration Work Zones (Phase II), subaward from Texas Transportation Institute (prime is Ohio Department of Transportation), $46,925 (2016-2017).

Quiram, Barbara. Mass Fatality Training Part 2, Texas Department of State Health Services, $105,000 (2017) [USA].

Quiram, Barbara. Cause of Death On-line Trainings, Texas Department of State Health Services, $350,150 (2017-2020) [USA].

Quiram, Barbara. Weaving the Tasina Luta: A Community-based Participatory Research Approach to Implementation and Engagement with a Tribal Public Health Plan, Robert Wood Johnson Foundation, $100,000 (2017-2018) [USA].

Quiram, Barbara. Proposal to Develop Text IT Messaging, Campaign Targeting Adolescent Mothers and Breastfeeding in a Post-Conflict County (El Salvador), subaward from the Texas A&M Center on Conflict and Development (ConDev), United States Agency for International Development (USAID), $25,000 (2016-2017) [USA].

Quiram, Barbara. Technical Assistance, South Dakota Department of Health, $30,629 (2017) [USA].
<table>
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<tr>
<th>Name</th>
<th>Project Title</th>
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<th>Project Key</th>
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<tr>
<td>Radcliff, Tiffany</td>
<td>Rural Lifestyle Eating and Activity Program (Rural LEAP)</td>
<td>Subaward from the University of Florida (prime is NIH), $54,307 (2013-2018).</td>
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<td>Schmit, Cason</td>
<td>Federal Data Protection Law Summaries</td>
<td>University of Michigan [Prime is Robert Wood Johnson Foundation], $20,000 (2017-2017).*</td>
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<tr>
<td>Sharkey, Joseph R.</td>
<td>Salud Para Usted y Su Familia [Health for You and Your Family]: Family -Focused Childhood Obesity Prevention through a Systems-Oriented Multilevel Approach in Arizona, New Mexico, and Texas Border Area, United States Department of Agriculture USDA National Institute of Food and Agriculture, $4,904,638 (2015-2020).</td>
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<td>Sharkey, Joseph R.</td>
<td>Empowering Rural Communities and Families: Preventing Chronic Disease Through Experiential Nutrition Education, United States Department of Agriculture USDA National Institute of Food and Agriculture, $322,000 (2017-2019).*</td>
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<td>Smith, Matthew L.</td>
<td>Evaluating Evidence-based Fall Prevention and Disease Self-Management Programs</td>
<td>National Council on Aging (NCOA), $22,912 (2017-2018) [CPHA].</td>
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<td>Taylor, Brandie and Maria Perez-Patron</td>
<td>R40: Maternal and Child Health Field-Initiated Research Program, Health Resources and Services Administration, $100,000 (2017-2018).*</td>
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<td>Taylor, Nicholas</td>
<td>Integrative gene expression profiling of primary colorectal cancer and adjacent extratumoral microenvironment</td>
<td>Delta Omega Research Enhancement and Development Initiative Program (REDI), School of Public Health Pilot Funding Program, $25,000 (2017-2018).*</td>
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<tr>
<td>Tekwe, Carmen</td>
<td>Novel Percentile-Based Statistical Methods to Model BMI Percentiles in Childhood Obesity, Delta Omega Research Enhancement and Development Initiative Program (REDI), School of Public Health Pilot Funding Program, $25,000 (2015-2017).</td>
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<td>Towne, Samuel</td>
<td>No Falls Partnership, United Way Tarrant County (Prime is DHHS Administration for Community Living ACL), $96,000 (2017-2020) [CPHA].</td>
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<tr>
<td>Xu, Xiauhuo</td>
<td>Interaction between Genes and Air Pollution in Relation to Cardiometabolic Risk in US Population, Delta Omega Research Enhancement and Development Initiative Program (REDI), School of Public Health Pilot Funding Program, $25,000 (2016-2017).</td>
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<tr>
<td>Xu, Xiauhuo</td>
<td>K award: Associations between Ambient Air Pollution and Adverse Birth Outcomes in Florida, National Institute of Environmental Health Sciences, $626,535 (2011-2017).</td>
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</tbody>
</table>

* denotes newly awarded in CY2017.
[ ] denotes Center affiliated projects.
Publications CY 2017


15) Buchanan JJ, Park I, Chen J, Wright DL, Mehta RK. Bimanual coordination patterns are stabilized under monitoring pressure Experimental Brain Research 2017;235(6):1909-1918.


33) Dingman DA, Schmit CD. Authority of Pharmacists to Administer Human Papillomavirus Vaccine: Alignment of State Laws With Age-Level Recommendations Public Health Reports 2017;0033354917742117.


50) Garcia TP, Marder K. Statistical Approaches to Longitudinal Data Analysis in Neurodegenerative Diseases: Huntington’s Disease as a Model Current Neurology and Neuroscience Reports 2017;17(2):14.


52) Garcia TP, Marder K, Wang Y. Time-varying proportional odds model for mega-analysis of clustered event times Biostatistics .


60) Gorman DM, Ponicki WR, Zheng Q, Han D, Gruenewald PJ, Gaidus AJ. Violent crime redistribution in a city following a substantial increase in the number of off-sale alcohol outlets: A Bayesian analysis Drug and Alcohol Review.


68) Hong Ay, Forjuoh NS, Ory MG, Reis DM, Sang H. A Multi-Level, Mobile-Enabled Intervention to Promote Physical Activity in Older Adults in the Primary Care Setting (iCanFit 2.0): Protocol for a Cluster Randomized Controlled Trial. JMIR Research Protocol 2017 09/12;6(9):e183.


Publications CY 2017


197) Smith ML, Schneider EC, Byers IN, Shubert TE, Wilson AD, Towne SD, Orly MG. Reported Systems Changes and Sustainability Perceptions of Three State Departments of Health Implementing Multi-Faceted Evidence-Based Fall Prevention Efforts Frontiers in Public Health 2017 Jun 8;5:120.


201) Smith ML, Bergeron CD, Riggle SD, Meng L, Towne SD, Ahn S, Orly MG. Self-care difficulties and reliance on support among vulnerable middle-aged and older adults with chronic conditions: A cross-sectional study Maturitas 2017;104:1-10.


211) Telesford-Checkley JM, Mora MA, Gentry TJ, McDonald TJ, Boelstoff DE. Impacts of Hormones on Water Quality as Evaluated through Escherichia coli and Fecal Sterol Analyses. Water Research 2017;89(6):508-518.


218) Towne SD, Fair K, Smith ML, Dowdy DM, Ahn S, Nwaiwu O’, Ory MG. Multilevel Comparisons of Hospital Discharge among Older Adults with a Fall-Related Hospitalization Health Services Reports 2017.


220) Towne SD, Probst JC, Hardin JW, Bell BA, Glover S. Health & access to care among working-age lower income adults in the Great Recession: Disparities across race and ethnicity and geospatial factors Social Science & Medicine 2017;182:30-44.


222) Vollmer Dahlke D, Fair K, Hong YA, Kellstedt D, Ory MG. Adolescent and Young Adult Cancer Survivorship Educational Programming: A Qualitative Evaluation JMIR Cancer. 2017 Feb 10;3(1):e3.


228) Xu X, Hu H, Hong YA. Body burden of heavy metals among HIV high risk population in USA Environmental Pollution 2017;220:1121-1126.


231) Yeager VA, Ferdinand AO, Menachemi N. The Impact of IRS Tax Policy on Hospital Community Benefit Activities Medical Care Research and Review 2017;1077558717703215.


235) Zheng Q. Sample size determination for the fluctuation experiment Mutation Research / Fundamental and Molecular Mechanisms of Mutagenesis 2017;795:10-14.


* denotes student authorship.
1) Barr AS*, Gomez L and Sharkey JR. Moderating the cultural knowledge gap: the development of a board game to address the underlying cultural assumptions of grocery shopping in the U.S. Nutrition Research Symposium, Texas A&M University, College Station, TX. April 2017.


4) Bolin JL. Cancer Screening, Training, Education and prevention Program (Texas C-STEP) Outcomes from Texas A&M C-STEP Programs. CPRIT State-Wide Oversight Committee Quarterly Meeting, Austin, TX. November 29, 2017.


46) Mendoza-Sanchez I. Limiting factors that control biological transformations of contaminants in the subsurface environment. School of Environment, Nanjing University, Nanjing. June 27, 2017.


58) Ohsfeldt RL. Application of Propensity Score-Matching Methods to Compare Data from Long-Term Extension Trials with Data from an Existing Lupus Registry. Annual European Congress of Rheumatology (EULAR), Madrid, Spain. June 2017.
Presentations CY 2017


65) Peres SC. Effective procedural designs and practices. Operational Excellence in Oil and Gas Conference, Houston, TX. November 2017.


92) Sharma VK. Ferrates(FeVI, FeV, and FeIV) as Green Materials in Multimodal Treatment to Water. Chemistry Department, Ewha Women University, Seoul, South Korea. August 2017.


96) Sharma VK. Ferrates(FeVI, FeV, and FeIV) as Green Materials in Multimodal Treatment to Water. Dalian Institute of Chemical Physics, Dalian, China. September 2017.


Zhao H. Analysis of health costs with censored data using Stata. XIV Italian Stata users group meeting, Florence, Italy. November 2017.

Zhao H. Propensity score methods for observational data analysis. Department of Statistics and Quantitative Methods, University of Milano-Bicocca, Milan, Italy. December 2017.


* denotes student authorship.
Health Promotion and Community Health Sciences

Burdine, James. Professor. Measurement of Factors Influencing Community Capacity for Population Health Improvement; Community Health Development Strategies; Community Health Needs Assessment

Campos-Bowers, Monica. Instructional Assistant Professor. Nutrition and Agriculture; Global Health in Developing Communities

Colwell, Brian. Professor. Adolescent Smoking Cessation; School Health Education; Youth Smoking Prevention; Adolescent Mental Health and Substance Abuse

Dowdy, Diane. Assistant Professor. Childhood Obesity Aimed at Prevention or Reduction; Physical Activity Programs to Community Settings; Physical Activity and Aging

Hong, Y. Alicia. Associate Professor. HIV/AIDS and STI Prevention Intervention; Mental Health of Women and Children Affected by AIDS; Mobile Technologies to Behavioral Interventions

Ma, Ping. Assistant Professor. Children’s Injury Prevention; Smoking Cessation; Maternal and Child Health; Women’s Health; Social Determinants of Health/Health Disparities; Health Promotion of Vulnerable Populations

McCord, Carly. Research Assistant Professor. Mental Health Needs of Clients of Telehealth Counseling Clinic (TCC); Intervention Approaches; Effectiveness of Interventions; Service Satisfaction Evaluation; Underserved Populations; Training and Supervision; Positive Psychology and Strength-Based Approaches; Telehealth

McLeroy, Kenneth. Regents Professor and Distinguished Professor. Community Capacity; Community-based Approaches to Health Promotion/Disease Prevention; Social Ecology and History of Public Health; Program Evaluation

Mier, Nelda. Associate Professor. Chronic Disease Prevention; Quality of Life through Behavioral Change in Hispanics living in Border Region; Intervention Research to Enhance Physical Activity Using a Culturally Sensitive Paradigm; Diabetes Prevention Among Children and Adults in the Border Region; Promotoras Model in Border Region

Millard, Ann. Associate Professor. Obesity Across the Life Course and Its Economic Implications; Prevention of Type 2 Diabetes; Reproductive Health and Birth Outcomes; Breastfeeding and Health; Tuberculosis and Health Policy in the US and Abroad; Occupational Health and Farm Workers; Communication of Complex Health Information to Community Members

Sharkey, Joe. Professor. Food Access and Food Choice in Underserved Areas; Food Insecurity and Hunger; Rural Community Empowerment; Engaging Rural Food Systems in Improving Health; Promotora Empowerment; Nutritional Health and Seniors

Spengler, John. Department Head, Professor. Active Living Policy and Obesity Prevention; Legal and Policy Issues around Injury Prevention; Physical Activity and the Built Environment; Risk Management Policy and Implementation in Sport and Recreation

Tai-Seale, Tom. Associate Professor. Local Health Systems Development; Community Empowerment of Chronic Disease Prevention; Program Planning; Evaluation for the Prevention and Control of Chronic Disease; Health Behavior Coaching

Towne, Samuel. Assistant Professor. The Intersection of Health and Place; Health-related Disparities; Health Outcomes; Access to Health Services among Aging, Minority, and Rural Populations

Epidemiology & Biostatistics

Clendenin, Angela. Instructional Assistant Professor. Risk Communication; Decision Analysis; Emergency Management and Emergency Communications; Cultural/Social Influences on Communication/Decision-Making; Communications Measurement and Assessment; Public Health Preparedness and Response for Refugee Populations; Teaching as Research

Garcia, Tanya. Assistant Professor. Genetic Mixure Models; High-dimensional Inference; Measurement Error; Mixed Models; Neurodegenerative Diseases; Nonparametric Models; Semiparametric Models; Survival Analysis

Gorman, Dennis. Professor. Alcohol and Drug Availability and Violence; Alcohol and Drug Prevention Policies; System Methodologies; Science and Pseudoscience in Public Health Research

Han, Daikwown. Associate Professor. Spatial Epidemiology; GIS & Spatial Analysis Methods; Environmental Health/Exposure Science; Environmental Justice and Health Disparities; Healthcare Access; Population Studies/Spatial Demography

Han, Gang. Associate Professor. Statistical Methods in Development of Personalized Medicine; Design and Analysis of Phase I/II Clinical Trials and Translational Studies; Survival Analysis Methods in Cancer Research; HIV Viral Load Modeling; Bayesian Analysis; Statistical Computing

Horney, Jennifer. Department Head, Associate Professor. Disaster Epidemiology Methods; Public Health Preparedness; Population-based Sampling; Public Health Systems and Services Research; Public Health Surveillance; Outbreak Investigation; Disaster Recovery; Community Resilience

Maria Perez-Parton. Assistant Professor. Demographic Methods; Reproductive Health; Migration and Family Formation; Immigrant Health; Minority Aging

Ross, Jennifer. Instructional Assistant Professor. Environmental Contaminants and Exposures; Occupational Injury and Diseases; Health Disparities in Underserved Populations

Taylor, Brandie. Assistant Professor. Reproductive and Perinatal Epidemiology Methods; Identifying Genetic Markers and Biomarkers to Predict Risk of Reproductive / Pregnancy Complications; Prevention of Sexually Transmitted Infections

Taylor, Nicholas. Assistant Professor. Molecular Epidemiology of Cancer - Melanoma and Breast Cancer; Study Design and Conduct

Tekwe, Carmen. Assistant Professor. Cancer Research; Nutritional Epidemiology; Radiation Epidemiology; Gerontology; Health Disparities; Bioinformatics; Proteomics; Measurement Error Models; Longitudinal Data Analysis; Survival Analysis; Applications of Generalized Linear Models; Neurostatistics; Functional Data Analysis; Mixed Effects Models

Zanwar, Preeti. Instructional Assistant Professor. Economics of End-Stage Renal Disease; Cancer Screening; Aging & Health Disparities; Infections & Vaccines

Zoh, Roger. Assistant Professor. Biostatistics; Bayesian Inference, Reliability Modeling and Factor Analysis; Analysis of Genomic Data; Engineering Statistics; Bioinformatics; Functional Longitudinal Data Analysis; Machine Learning; Statistical Monitoring; Nutrition and Cancer Epidemiology
### Health Policy & Management

**Alexander, James.** Associate Professor. Development of Community and Health Networks; Small Rural Hospital Leadership; Effectiveness of Critical Access Hospitals; Nursing Shortages

**Bolin, Jane.** Professor. Health Law and Ethics; Regulatory Compliance; Cancer Screening and Prevention; Diabetes Self-Management; Chronic Disease Management; Interdisciplinary and Translational Research; Rural Health Research; Rural Healthy People 2020

**Callaghan, Timothy.** Assistant Professor. Health Politics; Medicaid Coverage and Expansion; Health Insurance Marketplace Enrollment and Regulation; Lobbying in the Health Sector; State Politics; Public Opinion; Executive Politics; Survey Design

**Carrino, Gerard.** Instructional Professor. Evaluation: Program, Process, Outcomes, Economic; Nonprofit Sector in Health Care; Health Care Philanthropy and the Social Sector; Prematurity, Birth Defects, Infant Mortality; Public Health Finance

**Côté, Murray.** Associate Professor. Health Care Operations; Patient Flow, Capacity Planning and Management; Demand Forecasting; Nurse Staffing and Scheduling

**Fairchild, Amy.** Associate Dean for Academic Affairs, Professor. Immigrant Health Inspection; Disease Control; Disease Surveillance and Privacy; Public Health Issues; Tobacco Control

**Ferdinand, Alva.** Assistant Professor. Impact of Laws and Other Policies Relative to Public Health Outcomes: Roadway Safety, Obesity, and Access to Care; State and Federal Regulation of Health Care and Community Health Development

**Hatala, Jeffrey.** Assistant Professor, MPH Program Director. Public Health Systems and Service Research; Rural Health, Health Policy, and Vulnerable Populations; Nutrition, Physical Activity, Obesity and Related Conditions; Educational Pedagogy, Particularly Around Writing Skills in Health Professions

**Griffith, Jennifer.** Associate Dean for Public Health Practice, Associate Professor. Public Health Emergency Preparedness and Response; Intervention Implementation, Management and Evaluation

**Kash, Bita.** Associate Professor. Organizational Capacity for Change and Transformation; Change Implementation in Healthcare; Healthcare Strategic Planning and Marketing; Evaluation of Integrated Primary Care Networks; Quality and Cost of Care; Strategic Management in Nursing Homes

**Kum, Hye-Chung.** Associate Professor. Data Science for Health Care; Population Informatics; Health Informatics; Health Policy Research; Program Evaluation Using Big Data; Decision Support Systems for Health Policy and Management

**Lin, Sherry.** Instructional Assistant Professor. Preventive Care Services; Disabilities Research; Vulnerable Populations

**McMaughan, Darcy.** Assistant Professor. Access to Care for Children and Youth with Special Health Care Needs; Community Participation, Independent Living and Social Integration for People with Disabilities; Quality of Care in Long Term Supports and Services; Assessment of Functional Ability and Care Needs

**Morrissey, Michael.** Department Head, Professor. Employer-sponsored Health Insurance; Affordable Care Act; Medicare & Medicaid; Effects of Legislation on Health and Health Care; Hospital Economics; Price Transparency in Health Care

**Ohsfeldt, Robert.** Regents Professor. Cost-Effectiveness and Cost Models; Economics of Health Behavior; Impact of Health Sector Regulation

**Quiram, Barbara.** Professor. Public Health Infrastructure; Health System Service Quality; Public Health Workforce Development; Rural Community Health System Planning and Development; Rural Community Disaster Planning

**Radcliff, Tiffany.** Professor. Health Economics; Health Policy; Health Services Research; Improving Quality of Care in Long-term Care; Access to Care for Rural and Other Underserved Populations; Improving Care Processes and Outcomes; Economic Evaluation

**Ramirez, Gilbert.** Professor. Systematic Review and Meta-Analytic Methodology; Decision Making Sciences; Evidence-Based Practice

**Schmidt, Cason.** Research Assistant Professor. Law as a Social Determinant of Health; Health Information Technology; Health Information Exchange; Privacy, Confidentiality, and Security of Health Information; Public Health Reporting and Surveillance; Pharmacists’ Vaccination Authorities

**Tomaszewski, Lesley.** Instructional Assistant Professor. Social Learning and Identity Formation; Gender in the Workplace; Andragogy and Curriculum Development

**Washburn, David.** Assistant Professor. Global Health; Health Policy; Health Systems Analysis; Strategic and Capital Planning; The Diffusion of Innovations; Decision-Making Behavior; Access to Care

### Environmental & Occupational Health

**Appiah, Bernard.** Assistant Professor. Public Engagement; Communication; mHealth and Mass Media Interventions for Behavior Change; Global Health; Knowledge Dissemination; Design, Implementation and Evaluation of Socio-behavioral Interventions; Social Network Analysis; Mixed Methods

**Benden, Mark.** Department Head, Associate Professor. Office Worker Obesity, Classroom Ergonomics and Childhood Obesity; Medical Device Development and Testing; Rehabilitation Engineering

**Bokelmann, Annamarie.** Assistant Professor. Environmental Health; Site Assessment; Regulatory Compliance, Health and Safety

**Carrillo, Genny.** Associate Professor. Public Health and US-Mexico Border Health Issues; Interactions of Human Health and the Environment; Asthma in School Children; Home Safety and Healthy Homes

**Cizmas, Leslie.** Assistant Professor. Environmental Health and Xenobiotic Exposures; Assessment of Pesticide Exposure in Children; Development of Effective Methods for Exposure Reduction; Community Health Education; Environmental Justice and Health Disparities; Global Health

**Johnson, Natalie.** Assistant Professor. Inhalation and developmental toxicology; maternal air pollution exposure; neonatal respiratory tract infections; childhood asthma; gene-environment interactions

**Maddock, Jay.** Dean, Professor. Social Ecological Approaches to Increasing Physical Activity; Nutrition, Tobacco Use, and Global Health

**McDonald, Thomas.** Professor. Environmental Chemistry; Petroleum Geochemistry; General Organic Chemistry

**Mehta, Ranjana.** Assistant Professor. Neuro-ergonomics; Operator Stress and Fatigue; Obesity and the Aging Brain; Falls Prevention

**Mendoza-Sanchez, Itza.** Research Assistant Professor. Mathematical and Experimental Models for Assessing Transport; Organics Trapped and Absorbed in Soils as a Source Zone of Groundwater Contamination; Water Balance Modeling

**Ory, Marcia.** Associate Dean for Research, Regents Professor and Distinguished Professor. Aging and Health Promotion; Evidence-based Disease Prevention Programs; Injury Prevention and Control; Clinical-Community Linkages; Health Disparities; Translational Research
Peres, S. Camille. Assistant Professor.
Biomechanics of Human Computer Interactions; Design Guidelines for Auditory Displays; Usability of Home Health Care Technology
Picks, Adam. Assistant Professor.
Ergonomic Tool Development; Occupational Safety Screening/Tool Development; Upper Extremity Modeling; Manual Materials Handling; Occupational Biomechanics
Rene, Antonio. Professor. Occupational/Environmental; Chronic Disease Epidemiology; Research Training
Sharma, Virender. Professor. Iron-Based Oxidants (Ferrates and Ferrites); Kinetics and Mechanism of High-Valent Transition Metals; Advanced Oxidation Methods; Solar-Based Photoactive Materials in Water Treatments; Green Synthesis of Nanoparticles; Formation, Fate and Toxicity of Nanoparticles in Aquatic Environment
Smith, Matthew. Associate Professor. Health Risk Behaviors Across the Life Course; Evidence-based Programming for Older Adults; Program Evaluation; Measurement; Survey Research and Methodology

Dean’s Office/Academic Affairs
Kodatt, Stephanie. Assistant Professor. Leadership; Spirituality; Management; Mental Health
2017 Graduate Student Research Winners
L-R: Dr. Marcia Ory, Marvellous Akinlotan 3rd place, Xiao Zhang 2nd place, Ashley Hill 1st place, Dean Maddock

The report is prepared by the School of Public Health Office of Research with contributions from faculty and staff.

For more information regarding this report or research at SPH, please contact Linnae Hutchison, Director, at the contact number or website listed below.