ANNUAL RESEARCH REPORT

CALENDAR YEAR 2018
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Annual Research Overview

Texas A&M University
School of Public Health

Our Vision
Stronger Communities
Healthy People
Our Tradition

Our Mission
The 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.

Our 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 has been an integral part of the mission of the Texas A&M School of Public Health (SPH) throughout its twenty year history. SPH faculty, staff, and students are actively engaged in a diverse array of sponsored and unsponsored research and service projects. This report summarizes the collective SPH sponsored projects, scholarly publications, presentations, and research interests for Calendar Year 2018 (CY 2018).

Highlights: 2018 was a transformational year for SPH Research, as it marked the inaugural year for the SPH Faculty Research Excellence Award, the penultimate year for SPH internal pilot funding awards, and changes in leadership for the Office of Research. Dr. Tiffany Radcliff, PhD., Professor in the Department of Health Policy & Management, became the fourth Associate Dean for Research at SPH in September 2018 when Dr. Marcia Ory, PhD., Regents and Distinguished Professor assumed a new role as the Associate Vice President for Strategic Partnerships and Initiatives (SPI) for the Health Science Center. Linnae Hutchison transitioned to a new role as Director of Research for the College of Nursing in September, leaving a legacy of excellent administrative support for SPH Research. Joy Hall joined SPH as the new Director of the Office of Research at SPH, bringing with her extensive experience in research administration, including SRS project administration.

Internal Funding Initiatives: Internal funding opportunities for SPH researchers continued to grow in 2018, with the continuation of the Delta Omega Research and Development Initiative (REDI) pilot grants ($25,000 each), the TAMU Program to Expand Scholarly and Creative Activities (PESCA) grants, and two new campus-wide opportunities through the President’s Excellence Fund - the Triads for Transformation (T3) for new multi-component collaborations to build proof of concept ($30,000 each with additional funds to support graduate and undergraduate student researchers) and X-grants with competitive awards from $500,000 to $1,500,000 each. Four new REDI grants, 14 new T3 grants, and 1 new X-grant proposal were awarded to SPH faculty in 2018.

2018 New & Continued Sponsored Research Funding Sources: SPH researchers continued to secure highly-competitive extramural research funding from federal and state governments, foundations, and other sources. Funding sources in 2018 included, among others: the Cancer Prevention Research Institute of Texas (CPRIT), National Science Foundation (NSF), National Institutes of Health (NIH), United States Department of Agriculture (USDA), Health Resources and Services Administration (HRSA), U.S. Department of Veterans Affairs (VA), Texas Department of State Health Services (DSHS), and the Robert Wood Johnson Foundation (RWJ). A categorical summary of SPH funding and scholarly output is provided below.

<table>
<thead>
<tr>
<th>CY 2018 SPH Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Research Expenditures:</td>
</tr>
<tr>
<td>Total Active Project Funding:</td>
</tr>
</tbody>
</table>

* Denotes total funding for all project years for all active projects in 2018

| Total Grants & Contracts: | 147 |
|---------------------------------|
| Federal: | 53 |
| State: | 16 |
| Internal (TAMU / SPH): | 24 |
| Foundations / Private: | 18 |
| Contracts: | 36 |

| Total Publications: | 157 |
| Total Presentations and Posters: | 199 |
New Extramural Funding Awards* for CY 2018

*Awards Received by SPH Investigators as PI or CO-PI with initial funding or start dates in CY 2018
Listed Alphabetically by SPH PI Last Name

10+10+25 Vaccine Communication via Radio in Ethiopia
Bill and Melinda Gates Foundation

Appiah, Bernard

Texas A&M University Health Science Center Occupational Safety and Health Training Center
DHHS-CDC-National Institute for Occupational Safety and Health (NIOSH)

Benden, Mark

Development of Sedentary Behavior Research Methods
VARIDESK
Benden, Mark

Evaluation of NCI Cancer Support Center’s Development of Rural Cancer Control Research & Partnerships to Increase Our Nation’s Cancer Research & Prevention Capacity
National Rural Health Association
Bolin, Jane

Working on Capacity Building to Improve Children’s Environmental Health
Environmental Protection Agency
Carillo, Genny

Hospital Asthma Discharges and its Relation with Hazardous Air Pollutants
Driscoll Children’s Hospital
Carillo, Genny

Investigation into the Epidemic of Unexplained Kidney Disease in Nicaragua: Understanding the Acute Clinical Scenario and Natural History of Disease in Mesoamerican Nephropathy
National Institutes of Health
Fischer, Rebecca

CASPER to Assess Coastal Texas
Texas Department of State Health Services
Horney, Jennifer

2018 Rape Prevention and Education Program
Texas Attorney General’s Office
Jones-Mckyer, Lisako

Rape Prevention and Education Contextual Climate Assessment Expansion
Office of the Attorney General of Texas
Jones-Mckyer, Lisako

Workshop of Tobacco & Cancer Disparities
The National African American Tobacco
Jones-Mckyer, Lisako

CHOT Membership Agreements:
(1) College of Medicine Practice Plan (TAMHSC)
(2) Children’s National Medical Center
(3) Main Line Health, Inc.
Kash, Bita

Hepatitis C y Otras Enfermedades Infecciosas en Comunidades Hispánicas/Latinas: Curso introductorio para Promotores de Salud
HeiTech Services, Inc.
Martinez, Denise

Training CHWs to Disseminate Culturally Competent, Family Health History-based Cancer Prevention & Navigation Services among Chinese Americans
Cancer Prevention and Research Institute of Texas (CPRIT)
Martinez, Denise

Evidence Based Tele-Behavioral Health Network Program,
DHHS-HRSA-Health Resources Development.
McCord, Carly

Annual Health Economics Conference (AHEC)
Agency for Healthcare Research & Quality (subcontract from Emory University)
Morrisey, Michael

Establish The Texas Evidence Based Program Coalition And Disseminate Evidence Based Programs Throughout Texas
WellMed Charitable Foundation
Ory, Marcia

GamePlan4Care
Baylor Research Institute
Ory, Marcia

Assessing the Utility and Effectiveness of Dementia Patient Monitoring Technology
Texas Alzheimer’s Research and Care Consortium
Ory, Marcia

Fighting Obesity by Reinventing Public Transportation:
A Natural Experiment
National Institutes of Health
Ory, Marcia

The Role of Maternal Diabetes & Obesity in Reproductive Health Outcomes
Knapp Community Care Foundation
Perez-Patron, Maria

Continuing support for the Mid-States Regional Center for Public Health Law at the University of Michigan
Regents of the University of Michigan
Schmit, Cason

(Continued on page 5)
Adding Value to Farm to Food Bank (AVF2FB)
Sequim Food Bank
Sharkey, Joseph

Collaborative Research: Ferrates(FeVI, FeV, and FeIV) Oxidation for Mitigation of Pharmaceutical Micropollutants in Source-Separated Urine: Underlying Mechanisms
National Science Foundation
Sharma, Virender

Evidence-based programs and healthcare utilization in Florida
Florida Health Networks
Smith, Matthew

Evaluation of Novel Interferon Epsilon across Human Pregnancy
National Institutes of Health
Taylor, Brandie

Air pollution and Alzheimer's Disease and Related Outcomes
George Washington University
Xu, Xiaohui
The School of Public Health supports faculty in their research activities, including assistance in the development of ideas to foster future extramural funding for investigator-initiated research.

Since CY 2015, the Delta Omega Research Enhancement and Development Initiative (REDI) program has awarded pilot funding to SPH investigators in support of innovative, novel, and interdisciplinary ideas with a high probability of leading to significant external funding. CY 2018 marked the final year for new awards from the REDI program, as the TAMU President’s Excellence Fund initiatives have provided new campus-wide funding opportunities for SPH faculty to develop multi-disciplinary collaborations and preliminary data to support larger grant proposals.

2018 REDI Award Grantees

Pictured Above (Left-Right) at the 2018 REDI grant award presentation: Linnae Hutchison (Director of the SPH Office of Research), Marcia Ory (Associate Dean for Research), Ping Ma, Garret Sansom, Jay Maddock (SPH Dean), David Washburn, and Hongwei Zhao

2018 REDI Grant Awardees:

Ping Ma, Assistant Professor, Department of Health Promotion & Community Health Sciences
Topic: Understanding the mechanism linking factors to the injury risk in children with special healthcare needs: A pilot study in Dallas.

Garrett Sansom, Research Assistant Professor, Department of Environmental and Occupational Health
Topic: Advancing the measurement of urban resilience: A resilient city policy index.

David Washburn, Assistant Professor, Department of Health Policy & Management
Topic: Taxing sugary drinks in Mexico: An Analysis of science, politics and policy.

Hongwei Zhao, Professor, Department Epidemiology & Biostatistics
Topic: A casual inference approach for studying influences of work stress & sleep disorders on cardiovascular diseases.
Projects Funded CY 2018

X-GRANT Round 1

(1) Point-of-Care Diagnosis and Monitoring of Respiratory Disease through Exhaled Breath Analysis
Lead Investigator: Gutierrez-Osuna, Ricardo
SPH Collaborator: Xu, Xiaohui

Triads for Transformation (T3) Round 1

(1) Hostile Intent Prediction Based On Gaze Movement Trajectory In Indoor Navigation
Du, Jing (Architecture)
SPH Collaborator: Han, Gang
Ferris, Thomas (Engineering)

(2) Developing A Tool For Measuring Landscape Performance On Public Health
Newman, Galen (Architecture)
SPH Collaborator: Horney, Jennifer
Mostafavidarani, Ali (Engineering)

(3) Acute Health Effects Of Occupational Exposure To Nanoparticles On Cardiopulmonary Functions
SPH Collaborator: Xu, Xiaohui
Zhou, Lan (Science)
Ying, Qi (Engineering)

(4) Are Microbes Controlling Criminal Behavior?
Pillai, Suresh D (Agriculture and Life Sciences)
SPH Collaborator: Sharma, Virender
Daigle, Courtney L (Agriculture and Life Sciences)

(5) Interferon Tau And Arginine: A Therapeutic Combination For Treating Obesity And Type 2 Diabetes
Bazer, Fuller (Agriculture and Life Sciences)
SPH Collaborator: Tekwe, Dwele
Rutkowski, Joseph (Medicine)

(6) Opioid Epidemic’s Impact On Older Adults
SPH Collaborator: Ory, Marcia
Zhong, Lixian (Pharmacy)
Davlasheridze, Meri (Texas A&M University at Galveston)

(7) Impact Of Immigration Enforcement On Border Heath In Texas: A Triangulated Perspective
Esplin, Bryn (Medicine)
Marouf, Fatma (School of Law)
SPH Collaborator: Bolin, Jane

Arenas, Angela M (Veterinary Medicine and Biomedical Sciences)
SPH Collaborator: Ramirez, Gilbert
Ficht, Allison (Medicine)

(9) At The Intersection Of Health And Place: Barriers To Health Service Utilization Among Men
Sherman, Ledric (Education and Human Development)
Goidel, Robert K (Liberal Arts)
SPH Collaborator: Smith, Matthew

(10) Virtual Reality, Process Safety, and Counterfactual Thinking - New Paradigm for Training?
SPH Collaborator: Peres, S Camille
Bergman, Mindy (Liberal Arts)
Smallman, Rachel (Liberal Arts)

(11) Patient-Provider Communication In The Digital Era
SPH Collaborator: Hong, Y. Alicia
Wigfall, Lisa (Education and Human Development)
Street, Richard L (Liberal Arts)

(12) Health Promotion Through Green And Affordable Housing
Zhui, Xuemei (Architecture)
Lee, Chanam (Architecture)
SPH Collaborator: McMaughan, Darcy

(13) Tracking The Source Of Contaminant Lead In Children’s Blood As A Means For Environmental Remediation
Mardantoni, Franco (Geosciences)
SPH Collaborator: Cizmas, Leslie
SPH Collaborator: Han, Daikwon

(14) Smart Opiate-Withdrawal Symptoms (SOS) System
SPH Collaborator: Mehta, Ranjana
Sasangohar, Farzan (Engineering)
Hamouda, Ayman K (Pharmacy)

PESCA GRANTS

(1) The trend of digital divide and health disparities in US: A longitudinal study of eHealth behavior and policy in the past decade
SPH Investigator: Hong, Y. Alicia

(2) Influence of contaminant antibiotics on antibiotic resistance in soils
SPH Investigator: Mendoza, Itza
Center for Community Health Development
funded by multiple external grants
Co-Director: Jim Burdine, DrPH
Co-Director: Lisako McKyer, PhD

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

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

Program on Global Health Research
Director: Brian Colwell, PhD

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

Program for Reproductive Health & Child Health
Director: Maria Perez-Patron, PhD

Center for Health Organization & Transformation
NSF Industry/University Cooperative Research Centers Program
Director, PI: Bita Kash, PhD

Center for Population Health and Aging
funded by multiple external grants
Founding Director: Marcia Ory, PhD, MPH
Co-Director: Matthew L Smith, PhD, MPH

Program for Health Policy Research
Director: Michael Morrissey, PhD

Program on Public & International Engagement on Nutrition & Health Disparities Solutions
Director: Joseph R Sharkey, PhD, MPH

The Ergonomics Center
funded by multiple external grants
Director, PI: Mark Benden, PhD
Co-Director: Adam Pickens, PhD

Southwest Rural Health Research Center
Funded by the Federal Office of Rural Health Policy
Director: Jane Bolin, PhD, JD, RN
Co-Director: Alva Ferdinand, PhD, JD

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
### SOUTHWEST RURAL HEALTH RESEARCH CENTER

<table>
<thead>
<tr>
<th>Grant Recipient</th>
<th>Project Title and Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bolin, Jane.</td>
<td>CPRIT Dissemination: Training CHWs for Cancer Education and Navigation, Cancer Prevention &amp; Research Institute of Texas (CPRIT), $300,000 (2015-2018) [SRHRC and CCHD].</td>
</tr>
<tr>
<td>Bolin, Jane.</td>
<td>Southwest Rural Health Research Center: Rural Health Research Grant Program Cooperative Agreement, Health Resources and Services Administration (HRSA), $2,816,714 (2016-2020) [SRHRC].</td>
</tr>
<tr>
<td>Bolin, Jane.</td>
<td>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].</td>
</tr>
<tr>
<td>Bolin, Jane.</td>
<td>Southwest Rural Health Research Center, Year 3 Project 2: Midterm Examination of Healthy People 2020: Comparisons Across the Urban-Rural Continuum in Meeting National Mortality Objectives, $105,004. (2018-2019) [SRHRC].</td>
</tr>
<tr>
<td>Ferdinand, Alva.</td>
<td>Southwest Rural Health Research Center, Year 3 Project 5: Webinar of Project 4 Results, $16,714 (2018-2019) [SRHRC].</td>
</tr>
<tr>
<td>Ferdinand, Alva.</td>
<td>Southwest Rural Health Research Center, Year 3 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].</td>
</tr>
<tr>
<td>Perez-Patron, Maria.</td>
<td>Southwest Rural Health Research Center, Year 3 Project 1: Disaster Planning, Preparedness, &amp; Response for Rural Long-Term Care Providers, $99,972. (2018-2019) [SRHRC].</td>
</tr>
</tbody>
</table>

### CENTER FOR POPULATION HEALTH AND AGING

<table>
<thead>
<tr>
<th>Grant Recipient</th>
<th>Project Title and Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ory, Marcia.</td>
<td>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].</td>
</tr>
<tr>
<td>Ory, Marcia.</td>
<td>Healthy South Texas, State of Texas, $4,560,000 (2018-2019) [CPHA].</td>
</tr>
<tr>
<td>Ory, Marcia.</td>
<td>SUSTAIN for Better Health and Health Care for Older Adults, DHHS Administration for Community Living (ACL), $895,189 (2016-2019) [CPHA].</td>
</tr>
<tr>
<td>Ory, Marcia.</td>
<td>Texas Model for Dementia Capable Communities, Texas Council on Alzheimer’s Disease and Related Disorders (TARCC), $549,344 (2016-2018) [CPHA].</td>
</tr>
<tr>
<td>Ory, Marcia.</td>
<td>Anding, Jenna (PI). Working on Wellness (WOW), Centers for Disease Control &amp; Prevention, $2,688,990 (2014-2018) [CPHA].</td>
</tr>
<tr>
<td>Ory, Marcia.</td>
<td>GamePlan4Care: Web-based Delivery System for REACH II, Baylor Research Institute, $63,156 (2018-2023). [CPHA]</td>
</tr>
<tr>
<td>Ory, Marcia.</td>
<td>Dissemination of Evidence Based Programs across Texas. WellMed Charitable Foundation. $45,000 (2018).</td>
</tr>
</tbody>
</table>
**Active Grants & Contracts CY 2018 (Continued)**

**Smith, Matthew.** Evaluating Evidence-based Fall Prevention and Disease Self-Management Programs, National Council on Aging (NCOA), $22,912 (2017-2019) [CPHA].

**Smith, Matthew.** Putting CDSMP to Work: Implementation of the Live Healthy, Work Healthy Program, University of Georgia Athens [NIH/NHLBI], $3,270,797 (2017-2020) [CPHA].

**Smith, Matthew.** Evidence Based Programs and Healthcare Utilization in Florida, Florida Health Networks, $50,000 (2018-2020) [CPHA]

**Smith, Matthew. Ory, Marcia** No Falls Partnership, United Way Tarrant County; DHHS - Administration for Community Living, $96,000 (2017-2020) [CPHA].

**CENTER FOR HEALTH ORGANIZATION TRANSFORMATION**

**Kash, Bita.** Innovative Managing Director, National Science Foundation Research Experiences for Undergraduates I/UCRC, $1,063,940 (2014-2020) [CHOT].

**Kash, Bita.** The Cost of Postoperative Delirium; CHOT Membership, American Society of Anesthesiologists, $150,000 (2016-2019) [CHOT].

**Kash, Bita.** Risk Stratification Tool at Central Texas Veterans Health Care System (VA), in Waco Texas; CHOT Membership, Central Texas Veterans Health Care System, $150,000 (2015-2018) [CHOT].

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

**CHOT Membership Agreements:**


Children’s National Medical Center, $150,000 (2018-2021).

College of Medicine Practice Plan, Texas A&M Health Science Center. $150,000 (2018-2021).

**CHOT Site Contributions:**

University of Alabama-Birmingham, $60,000 (2017-2019).

**ERGONOMICS CENTER**

**Benden, Mark.** Development of Sedentary Research Methods. Varidesk. $50,000 (2017-2018) [ERGC].

**Benden, Mark.** Texas A&M University Occupational Safety & Health Training Program (competitive 5 year renewal), NIOSH, $750,000 (2018-2023) [ERGC].

**Benden, Mark. (Co-I),** NSF ERC PATHS-UP with Center for Remote Health and Systems Technology. $10,000,000 (2017–2022) [ERGC].

**Benden, Mark.** Impact of Varidesk® usage and gamification concept on sedentary behavior at Texas A&M University, Varidesk, $75,000 (2018-2021) [ERGC].

**Benden, Mark.** CDC to Positive Motion, NIH Commercialization Accelerator Program Grant-in-Kind. (2018) [ERGC].

**Mehta, Ranjana. (Pl).** Peres, Camille (Co-Pl). RAPID: Human-Robotic Interactions During Hurricane Harvey Recovery Operations, National Science Foundation, $117,579 (2017-2019) [ERGC].


**Peres, 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) [ERGC].


**Peres, Camille.** Advanced Procedures Research Study Phase III, A Human Factored Approach, TEEX/Exxon Mobil, NovaChemical, NASA. $310,000 (2015-2018) [ERGC].

**Peres, Camille.** Advanced Procedures Research Study Phase III, A Human Factored Approach, Chevron, Exxon Mobil, $150,000 (2015-2018) [ERGC].

**CENTER FOR COMMUNITY HEALTH DEVELOPMENT**

**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].

**Burdine, James N.** Brazos Valley Community Health Resource Center: A Case Study, Episcopal Health Foundation, $71,669 (2017-2018) [CCHD].

**Clark, Heather.** Rape Prevention and Education Contextual Climate Assessment Expansion, Office of the Attorney General of Texas. $150,000 (2018-2019) [CCHD].


**McKyer, E. Lisako.** Texas Rape Prevention and Education Evaluation, Office of the Attorney General of Texas / Centers for Disease Control and Prevention, $467,505 (2017-2019) [CCHD].

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

**USA CENTER FOR RURAL PUBLIC HEALTH PREPAREDNESS**

**Quiram, Barbara.** Cause of Death On-line Trainings, Texas Department of State Health Services, $750,000 (2017-2020) [USA].

**Quiram, Barbara.** Texas Public Health Risk Assessment Tool (TXPHRAT). Texas Department of State Health Services, $202,189 (2019-2020) [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.** South Dakota Technical Assistance 2018. South Dakota Health Department. $30,629 (2018) [USA].

**OTHER ACTIVE GRANTS & CONTRACTS**


(Other Projects Continued on Page 11...)


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


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


Horney, Jennifer. EAGER-Citizen Science for Infrastructure Monitoring at the Neighborhood Level, TEES / National Science Foundation), $2,706 (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 / NIH, $72,130 (2017-2018).


Horney, Jennifer. McDonald, Thomas (Co-Pls). Prioritizing Risks from Oil Spills, National Academy of Sciences, $700,000 (2017-2019).

Horney, Jennifer. CASPER to Assess Coastal Texas. Texas Department of State Health Services, $103,597 (2018-2020).


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


McKyer, E. Lisako. 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), $160,000 (2017-2019).

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


Mendoza, Itza. Spread of Contaminant Antibiotics and Antibiotic Resistance in Soils Due to Extreme Weather Events, Texas A&M University CONACYT Program, $12,000 (2017-2020).


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).


Sharkey, Joseph R. 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).

Sharkey, Joseph R. 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).


(22) *Choi DT, Kum HC*, Park S, Ohsfeld RL, Shen Y, Parikh ND, Singal AG. Hepatocellular Carcinoma Screening is Associated with Increased Survival of Patients with Cirrhosis. *Clinical Gastroenterology and Hepatology* 2018.


(80) *Lee S, Ory MG, Towne SD, Jr., Smith ML*. Effects of Sequential Participation in Evidence-Based Health and Wellness Programs among Older Adults. *Innovation in Aging* 2018;2(2).


Publications CY 2018 (Continued)


(100) Park S, Ayala GX, Sharkey JR. Blanck HM. Knowledge of Health Conditions Associated with Sugar-Sweetened Beverage Intake is Low among US Hispanic Adults. American Journal of Health Promotion 2018.


(107) Regan AK, Gibbs RA, Effler PV. An Audit of the Reliability of Influenza Vaccination and Medical Information Extracted from eHealth Records in General Practice. Vaccine 2018;36(23):3195-3198.


* Indicates student contribution.
Presentations CY 2018


(9) Choi D, Kum H, Park S, Ohsfeldt R and Singal A. Hepatocellular Carcinoma Screening is Underused in at-Risk Patients. DiseaseWeek (DDW), Washington, DC. June 2018.


(24) Han G. The Implementation of Frequentist-Bayesian Hybrid Inference. 4th International Conference on Big Data and Information Analytics (BigDIA 2018), Houston, Texas. December 17-19, 2018.


(27) Han G. Bayesian Hybrid Inference and its Application in HIV Viral Load Modeling and Computer Experiments. Department of Applied Chemistry, College of Science, China Agricultural University, Beijing, China. April 11, 2018.

(28) Hatala J, Tomaszewski L. Successes with Project-Based Teaching: An Examination of various Styles and Techniques to Ensure Student Achievement Based on Student-Centered Innovation. Texas A&M Transformational Teaching and Learning Conference, College Station, Texas. April 17-18, 2018.


(33) “Hong YA, Guo Y. Results of a RCT of Social Media (WeChat) Based Intervention to Improve Medication Adherence in People Living with HIV/AIDS. 39th Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine, New Orleans, Louisiana. April 11-14, 2018.


(38) Johnson NM. Early Life Air Pollution Exposure and Infant Respiratory Disease. Louisiana State University School of Veterinary Medicine, Department of Comparative Biomedical Sciences Seminar Series, Baton Rouge, Louisiana. January 2018.


(52) Lin S. Landing on Your Feet with Flipping the Course for the First Time. 2018 Transformational Teaching and Learning Conference, College Station, Texas. April 2018.


(56) Maddock JE. Improving Health at the State Level: From Texas to the Southern United States. School of Medicine, Wake Forest University, Winston-Salem, North Carolina. 2018.


(64) Morrissey M. Comments on Silver and Hyman. Undercharged. Bookfest, University of Texas School of Law, Austin, Texas. March 23, 2018.


(67) Ohsfeldt RL. Hepatocellular Carcinoma Screening is Underused in at-Risk Patients. The Liver Meeting, San Francisco, California. November 9-12, 2018.


(71) Ory MG. Healthy Texas: Expansion to the Brazos Valley. Active for Life Health and Wellness Conference. College Station, Texas. April 2018.


(73) Ory MG. Aging Forward: Trends, Challenges, and Opportunities. Health Tech Austin Healthy Aging Summit, Austin, Texas. September 2018.

(74) Ory MG. Reducing Dementia Caregiving Burdens. Texas Tech University Health Science Center, Garrison Institute on Aging, Regional Healthy Aging and Dementia Research Symposium, Lubbock, Texas. October 2018.


(103) Sharma VK. Ferrates: Emerging Advanced Materials in Biomedical, Environmental, Energy, and Industrial Applications. Faculty of Agricultural and Food Sciences, American University of Beirut, Beirut, Lebanon. May 2018.


(135) Turcott RJ, Boolani A, Smith ML. Mapping the Rink: Migration Patterns of Male and Female NCAA Division I Ice Hockey Student Athletes from North America and Europe. European Sport Management Annual Conference, Malmo, Sweden. September 5-8, 2018.


(147) Zheng, Q. High performance computing enriched understanding of chromosome segregation, Second Annual Texas A&M Research Computing Symposium, June 14, 2018, College Station, TX.


(18) Hong Y and Guo Y. Development of a Mobile-Based Health Education and Enhanced Care Intervention to Improve Quality of Life for Esophageal Cancer Patients in China. 2018 International Cancer Education Conference, Atlanta, Georgia. October 3-5, 2018.


(40) *Stasi SM*, **Spengler JO** and **Maddock JE**. The World Fit Walking Program: Engaging Olympians to Promote Physical Activity on a University Campus. Active Living Research Annual Conference, Banff, Canada. February 11-14, 2018.


(51) Zheng, Q. A novel way to teach biostatistics to public health students, 10th International Conference on Teaching Statistics, July 8 – 13, 2018, Kyoto, Japan. Poster # 29, [https://icots.info/10/?posters](https://icots.info/10/?posters)

*Indicates Student Contribution*
Faculty Research Interests by Department

**Health Promotion and Community Health Sciences**

**Buridine, 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.

**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; Promotoras 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; Public Health Preparedness and Response for Refugee Populations; Communications Measurement and Assessment; Teaching as Research.

**Garcia, Tanya. Assistant Professor.** Genetic Mixture 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, Daikwon. 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 II/III Clinical Trials and Translational Studies; Survival Analysis Methods in Cancer Research; HIV Viral Load Modeling; Bayesian Analysis; Statistical Computing.

**Horney, Jennifer. 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.

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

**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; Neuro-statistics; Functional Data Analysis; Mixed Effects Models.

**Xu, Xiaohui. Department Head, Associate Professor.** Air pollution epidemiological studies. Susceptible population to environmental exposures modified by genetics, pre-existing health conditions, and co-exposure to other factors, etc; Maternal and child health. Environmental exposure assessment. Spatial epidemiology.

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

**Zhao, Hongwei. Professor.** Survival analysis & longitudinal data analysis, Quality-adjusted life time estimation, & cost-analysis with censored data, Problems with correlated data from longitudinal studies & epidemiological studies


**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**

**Morrisey, 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.

**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.


**Côté, Murray. MHA Program Director, 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. MPH Program Director, Assistant Professor.** 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.

**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. Associate Dean for Research, 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; Disaster Preparedness and Response; Veterans Healthcare; Economic Evaluation.

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

**Schmit, Cason. Research Assistant Professor.** Law as a Social Determinant of Health; Health Information Technology; Health Information Exchanges; 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.


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

McDonald, Thomas. Regents 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 Vice President for Strategic Partnerships and Initiatives, 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.

Pickens, 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.
2018 Faculty Research Excellence Award

Dr. Johnson’s innovative work characterizing air pollution exposure during pregnancy has been recognized by NIEHS. She received a $2M+ Outstanding New Environmental Scientist Award (ONES) and was one of the recipients of the first School of Public Health REDI grants in 2015. The pilot data generated through the REDI grant helped position her to compete successfully for the R01 grant funding.

**Dr. Johnson’s Active Funding in 2018 included:**

1. NIH R01, Mechanisms of particulate matter driven infant respiratory disease, 12/15/17-11/30/22
   - Total award $2,068,455 – PI
2. NIH P30, Pilot Grant, Maternal benzene exposure following Hurricane Harvey, 11/1/17-5/1/18
   - Total award $30,000 – Principal Investigator
3. U.S. DOT Center, Pilot Grant, Border crossing emissions impacts study, 2/1/17-3/31/19
   - Total sub-award $100,000 – Co-PI (PI Joe Zietsman)
4. NIH P30, Pilot Grant, Comparison of post-Harvey environmental sampling and wristband results and translation of results to community residents and groups, 11/1/17-5/1/18
   - Total award $30,000 – Co-Investigator (PI Robin Fuchs-Young)
5. NIH P30, Pilot Grant, Potentiation of preconception exposures and intrauterine environmental factors in a multiplex model of environmentally-induced dysgenesis, 11/1/17-5/1/18
   - Total award $50,000 – Co-Investigator (PI Mike Golding)
6. NIH T32, Regulatory science in environmental health and toxicology, 4/1/16-3/31/21
   - Total award $1,337,971 – Co-Investigator/Director of Diversity in Training (PI Ivan Rusyn)
7. NIH R25, The MENTORS Project, 8/1/16-7/31-21
   - Total award $1,300,911 – Co-Investigator/Executive Committee Member (PI Robin Fuchs-Young)

**Recent Publications:**

2018 Student Award Recipients

13th Annual Dr. Jean Brender Student Research Poster Contest

Undergraduate Award Recipients:
1st: Kalina Zahariev
2nd: Bobbi Miller

Graduate Student Award Recipients:
1st: Xiao Zhang
2nd: Colette Nickodem
3rd: Ashley Hill

SPH Student Award for Research Excellence

Master’s Level: Rebecca Langley
Doctoral Level: Debra Tan Choi, PhD, MPH

The School of Public Health Annual Research Report is prepared by the School of Public Health Office of Research.
For more information regarding this report or research at SPH, please contact the Office of Research.

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