TEXAS A&M UNIVERSITY
School of Public Health
Annual Research Report
Calendar Year 2020

Prepared by the Texas A&M University School of Public Health Office of Research
The Office of Research is committed to providing efficient and effective administration and support for the research activities of the faculty and staff of the Texas A&M University School of Public Health.

public-health.tamu.edu
The year 2020 provided an abundance of unexpected challenges and opportunities for public health research. Here at the Texas A&M School of Public Health (SPH), our researchers were continuously engaged in a variety of new and ongoing initiatives that leveraged our cross-disciplinary research expertise and public health acumen to generate new knowledge and support the public health response to COVID-19 at local, national, and global levels. While many of us immediately think about epidemiology, particularly how to limit disease spread, as a critical role of public health in pandemic response, our SPH researchers were also creatively engaged in assuring resilience of communities and were applying their research to design safer spaces for campus and community events, conducting ergonomic assessments to support remote office worker safety, and strategic planning for healthcare leaders who were facing unprecedented demands for healthcare resources.

Among the highlights for SPH during 2020:
• SPH welcomed a new permanent Dean, Dr. Shawn G. Gibbs. Dean Gibbs arrived just as most Texas A&M’s campus operations were moving to remote locations; his research expertise in industrial hygiene and interrupting highly infectious diseases was particularly fortuitous as SPH was quickly asked to lead many of the campus and community response efforts!
• 65 new external grants and contracts were awarded to SPH researchers, totaling $7,421,288.
• Despite the pandemic, our researchers continued to present their research in scholarly forums, including 54 poster and 79 conference presentations
• SPH faculty and student research awards were presented to recognize exceptional research contributions, with our 15th annual Jean Brender Student Poster Contest and Symposium quickly moved to an on-line format to accommodate COVID-19 protocols

<table>
<thead>
<tr>
<th>SPH Research Statistics</th>
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<tr>
<td></td>
<td>2019</td>
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<tr>
<td>Total Research Expenditures</td>
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<tr>
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<td>State</td>
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<td>Internal (TAMU/SPH)</td>
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<tr>
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<td>Presentations</td>
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<td>Posters</td>
<td>106</td>
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<td>SPH Faculty*</td>
<td>48</td>
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*Count of all tenured, tenure-track and research-track faculty
Texas A&M University School of Public Health COVID-19 Response
Drs. Angela Clendenin and Rebecca Fischer led the COVID-19 operations center, which provided contact tracing, outbreak monitoring, and operationalized testing resources to support continuity of University operations. Many SPH students were able to gain practical experience through their work in the operations center.

Drs. Hongwei Zhao, Murray Cote, Tiffany Radcliff, Rebecca Fischer, and Marcia Ory formed a “Public Health Modeling Group” that included researchers from multiple components of Texas A&M and the Texas A&M System. They used publicly-reported data to track and predict COVID-19 cases and hospitalizations in local areas. Their work culminated in an automated dashboard that remains active even as vaccinations increase and hospitalizations and fatalities decline.

Drs. Mark Benden, Angela Clendenin, Shawn Gibbs, Rebecca Fischer and Tiffany Radcliff worked with campus leaders to adjust seating, cleaning, air exchange, quarantine and other protocols to facilitate safety on campus.

SPH faculty (too many to list here!) provided quick turnaround interviews and commentaries based on their expertise that were disseminated in The Conversation and other popular media outlets.

COVID-19 Conversations

SPH launched the "COVID Conversations" series, which highlighted the role of public health tools in understanding and responding to the pandemic.
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SPH Welcomes Shawn G. Gibbs as new Dean in 2020

The Texas A&M University School of Public Health certainly had an eventful 2020. TAMU SPH helped lead the COVID-19 response for Texas A&M and were valued partners to the Texas A&M System and many surrounding communities.

Upon his arrival in May 2020, Dean Shawn Gibbs was appointed by the Provost at TAMU to lead numerous TAMU response efforts including a wastewater sampling program at Texas A&M to monitor and predict COVID-19 hotspots on campus and serving on a committee for the SEC’s COVID-19 response for athletic events, and then was appointed TAMU COVID-19 response lead when Provost Fierke departed. “The SPH has risen to the occasion in the past year, I can’t speak highly enough of the COVID-19 response efforts from our students, faculty and staff,” Gibbs said. “About a third of our faculty at the School of Public Health pivoted to COVID-19 response efforts to help our university, our community and our state navigate the pandemic. Tons of our students, staff, and faculty volunteered to run vaccination and testing events. I was there with them, collecting saliva, wiping down tables and directing traffic. They all worked incredibly hard.”

Our Faculty, Staff, and Students worked diligently to protect others within our communities and the nation throughout the pandemic, and through it all we continued to push forward our Scholarship.

During 2020, for TAMU SPH has also had many non-COVID-19 related successes. SPH completed our strategic planning process, moved forward on many new research initiatives extending beyond pandemic response, including new investments to strengthen research support structures, graduate student support, and incentives for the School. Faculty within SPH had great success this past year in a variety of initiatives, including nutritional interventions in South Texas, engaging Spanish speaking communities in their community mental health, preparing for natural disasters, and investigation of Medicaid waivers. The SPH fiscal situation has also greatly improved providing us funds to invest in our people, new people, and new initiatives.
New Research in 2020
Can indoor hydroponic vegetable gardening improve the quality of life in cancer patients and their caregivers? Taehyun Roh, PhD received the Center for Health and Nature Innovation Award to examine, for the first time, the feasibility of the hydroponic vegetable gardening as an intervention strategy in cancer patients. Twenty-five patients and their caregivers from the outpatient infusion center at the Houston Methodist Cancer Center will be provided hydroponic vegetable gardening systems to grow lettuce and grape tomatoes for 12 weeks. During the 12 weeks the level of depression, health-related quality of life, pain management and vegetable consumption will be assessed through questionnaires.

Read more:

Attitudes toward mental illness and stigmatizing behavior typically develop at a young age and efforts to fight stigma in schools by improving knowledge, attitudes and behaviors about mental illness are vital. Melissa J. DuPont-Reyes, PhD, MPH, and colleagues are analyzing long-term changes in mental illness knowledge, attitudes, and behaviors over a two-year period after delivering an anti-stigma intervention to students in the sixth grade. The researchers tested three approaches to increasing knowledge and positive attitudes about mental illness and treatment options. Reyes and her colleagues found that the curriculum intervention was associated with a significant knowledge and positive attitudes toward people with mental illness, a notable decrease in exclusion behaviors and an increased likelihood of seeking treatment for mental health issues if needed.

Read more:
The positive deviance approach, first developed in 1976, is defined as a process of social and behavioral change that highlights uncommon social practices. This approach is based on the premise that some individuals and communities can overcome constraints and attain better health outcomes than their peers who are living in similar, low-resource environments. Researchers led by Ping Ma, PhD, are applying the positive deviance approach to explore resilience-promoting factors and uncommon adaptive strategies and behaviors among older Asian Americans who have experienced trauma.

Sé el Héroe (Be the Hero) aims to reduce the infection and transmission of SARS-CoV-2 among community health workers, farmworkers, food service providers, and their families in limited resource communities. The project, led by Joseph Sharkey, PhD, MPH, will develop, implement, and evaluate curricula in response to unique resources, cultural traditions, family practices, and other factors.
A team of Texas A&M investigators led by Hye-Chung Kum (PI) is evaluating the 1115 Medicaid Waiver in Texas after receiving an over $5 million, 5-year contract. The aim of Texas’ 1115 Medicaid Waiver has been to improve efficiency and control costs while maintaining access to quality care for low-income Texans. The 1115 Medicaid Waiver allowed Texas to continue expanding its Medicaid Managed Care (MMC) program and to implement Uncompensated Care (UC) pools and a Delivery System Reform Incentive Payment (DSRIP) program designed to promote health care system innovations with a focus on value-based care.

The evaluation team includes a number of professors from the Texas A&M School of Public Health, including David Washburn, Ben Ukert, Bob Ohsfeldt, and Qi Zheng; graduate students Nikita Wagle, Laura Benavides, Sophia Anyatonwu, Geng Zhang and program coordinator Abby Spiegelman. Additional collaborators include Eva Shipp and Amber Trueblood at the Texas Transportation Institute, Todd Leroux and Chad Smith at Stonewall Analytics, and Michael Morrisey.

The Centers for Medicare & Medicaid Services (CMS) mandates that Medicaid 1115 Waivers granted to states are reviewed by external evaluators, and the Texas A&M-led team is proud to serve in this role. The research team is conducting several studies within this project, making use of a variety of methodologies including surveys, claims data analysis, and additional analyses of administrative and health related data provided by the state of Texas. The interim report of the evaluation will be submitted to CMS in the fall of 2021, with the final report due in 2024.
Problem Solving Training (PST) for English- and Spanish-speaking Care Partners of adults with Alzheimer’s and Alzheimer’s-related dementia

Caregivers of individuals with Alzheimer’s disease and related dementia rarely get the preparation or training they need to manage their caregiving responsibilities and to successfully balance their own self-care and their caregiving roles. As a result, caregivers often experience caregiver burden, emotional distress, and substance abuse. Dr. Matthew Lee Smith is part of a team studying problem solving training (PST) to support the emotional and social functioning of caregivers to improve their health and well-being and to prevent caregiver burden and poor coping. PST is an evidence-based approach that teaches and empowers individuals to solve emergent problems contributing to their depressive symptoms, helps improve coping skills and increases self-efficacy.

Mitigating the Impacts of Excessive Industrial Pollutants Following Natural Disasters

Garett Sansom, DrPh, and a team of researchers are using a U.S. Environmental Protection Agency (EPA) grant to study the changing environmental conditions impacting pollutants released from chemical facilities following a natural disaster such as a hurricane or flood. Typically, the pollutants released increase, and many vulnerable communities, such as the Galena Park community located north of the Houston Ship Channel, see the impacts on public health intensify. The researchers will use a combination of tools to accomplish their long-term goal to improve the resilience of the community to hurricane/flood-induced releases of metals and volatile organic compounds. Read more: https://vitalrecord.tamhsc.edu/mitigating-the-impacts-of-excessive-industrial-pollutants-following-natural-disasters/
An alarming 10 percent of the United States population has diabetes. While many are able to manage their symptoms and avoid hospital care, certain individual and place-based factors can affect diabetes management, which may lead to costly emergency department visits and hospitalizations. The extent to which emergency departments and hospitals across the nation are used for diabetes-related treatment is not fully known. Alva O. Ferdinand, DrPh, JD, and her colleagues investigated which individuals and place-based factors most significantly affect the likelihood of seeking emergency care and subsequently being hospitalized for a diabetes-related issue.

Read more: https://vitalrecord.tamhsc.edu/checking-the-pulse-on-diabetes-disparities/

Barbara Quiram, PhD, is developing a survey and coordinating and facilitating a working group to address disaster planning related to COVID-19. The Texas Department of State Health Services (DSHS) enlisted Quiram, who is an expert in her field and is well known for her ability to oversee and coordinate emergency technical assistance and disaster mitigation. Quiram will assist DSHS in identifying community defined solutions to address community identified concerns related to planning for and responding to the Coronavirus. Quiram’s expertise will be used to quickly tackle, and address disaster planning and mitigation related to the public health threat.
The Center for Community Health Development (CCHD) was formed to establish a research, education, and experience base for improving population health status in a cost-effective manner. The center also provides invaluable research, education, and training experience for master’s and doctoral students of the Texas A&M University School of Public Health, the Texas A&M University Health Science Center, and The Texas A&M University System.
USA Center for Rural Public Health Preparedness

The USA Center for Rural Public Health Preparedness is designed to ensure public health professionals are able to respond to threats to the nation’s public health. The USA Center at the Texas A&M University School of Public Health is the only center with a specific rural focus and is charged with supporting and developing the skills and competencies of emergency responders in rural areas of the United States.
Southwest Rural Health Research Center

The Southwest Rural Health Research Center (SRHRC), established in 2000, is one of only nine federally-funded research centers by the Health Resources and Services Administration's Federal Office of Rural Health Policy. The center focuses on conducting policy-relevant research on meeting the needs of special rural populations, minority populations and health disparities (including border populations), and rural systems building.
Center for Health Organization Transformation

The Center for Health Organization Transformation (CHOT) is an industry-university cooperative research center funded by the National Science Foundation and health organizations to conduct research supporting major management, clinical, and information technology innovations in healthcare. The Texas A&M University School of Public Health faculty and graduate students, team with health system professionals to pursue various research projects.
Ergonomics Center

The mission of the Texas A&M Ergonomics Center is to expertly provide practical, solution-based outreach and perform cutting edge research while fostering the success of health and safety professionals. They have updated their mission and I used the new one.
The Center for Population Health and Aging (CPHA) promotes population health and successful aging through innovations in research, education, and practice that examines social, behavioral, economic, environmental, and technological solutions linking academic and real-world clinical and community settings. Research focuses on evidence-based programs, health communities, and interactions between health, aging, and technology.

2019 Recipients of the Redefining American Healthcare Award by the Healthcare Leadership Council
Texas A&M School of Public Health Programs

Asthma Research and Education

The Program on Asthma Research and Education (PARE) facilities environmental research and education focused on asthma, addressing underserved and minority populations.

Director: Genny Carrillo, MD, ScD

Environment and Sustainability

The Program on Environment and Sustainability (PES) goals are to develop and lead a vibrant Environmental and Sustainability network and to build a model research program with a multidisciplinary approach that also encompasses education and outreach.

Director: Virender Sharma, PhD

Global Health Research

The Program on Global Health Research engages in cutting-edge transdisciplinary research and teaching that reduces the burden on disease and improves lives in international settings.

Director: Brian Colwell, PhD
Texas A&M School of Public Health Programs (cont.)

Health Law & Policy

The Program on Health Law & Policy aims to become a nationally recognized center noted for its rigorous analysis of state health laws and in-depth training of empirical health law researchers, analysts, and policy advocates.

Director: Cason Schmit, JD

Health & Nature

The Program on Health & Nature facilitates research and educational activities focused on the relationship between human health and nature. Research foci span from the community, the role of industry and the health care system. It also serves as the Texas A&M home for the joint Center for Health and Nature, a collaborative effort between Houston Methodist Hospital, Texas A&M University and Texan by Nature.

Co-Director: Jay Maddock, PhD, FAAHB & Bita Kash, PhD, MBA, FACHE

Reproductive & Child Health

The Program on Reproductive and Child Health focuses on the study of environmental and occupational etiological determinants of reproductive and child health and the education and training of future leaders in this highly critical area of public health.

Director: Shaida Kalbasi, PhD
Awards & Recognition
Congratulations to Infectious Disease Expert Dr. Rebecca Fischer named to Texas Monthly’s 2021 Best Things in Texas. Fischer along with colleagues Dr. Peter Hotez of Baylor College of Medicine and Dr. Lauren Ancel Meyers of UT Austin were recognized for their efforts to give Texans - and the rest of the world - accurate guidance on the pandemic.

2020 Faculty Excellence Award Recipient

Alva Ferdinand DrPH, JD

Dr. Ferdinand’s research primarily focuses on disparities in health outcomes, state and federal regulation of health care delivery and the effectiveness of laws aimed at improving public health. In addition to being an Associate Professor in the Department of Health Policy & Management at SPH, she serves as the Director of the Southwest Rural Health Research Center.

Dr. Ferdinand is most widely known among policymakers, motor vehicle insurance personnel, roadway safety advocates, and editors and readers of the *American Journal of Public Health*, for her work on the impact of texting-while-driving bans on reducing roadway injuries and deaths. She has been consistently funded by federal agencies including the National Science Foundation, Patient Centered Outcomes Research Institute, and Health Resources and Services Administration.
2020 Student Research Excellence Awardees

Doctoral
Theodoros Giannouchos
PhD Candidate, Health Services Research
Advisor: Dr. Hye-Chung Kum
“The Effect of Medicaid Expansion on Emergency Department Utilization in New York”

Graduate
Kathleen Aarvig
MPH candidate, Environmental Health
Advisor: Dr. Garrett Sansom
“Polycyclic Aromatic Hydrocarbons (PAH) Surface Soil Pollution in Somerville, Texas”

Undergraduate
Nariko Nakachi
BSPH candidate
“Investigating the Needs of Low-Income, First-Generation College Students at a Large Public University”
Advisor: Dr. Robert Garcia
15th Annual Jean Brender Student Research Poster Awards: Graduate

1st Place

Association between Ambient Air Pollution and Hospital Length of Stay among Children with Asthma in South Texas

Juha Baek
DrPH student, Epidemiology and Environmental Health
Concentration: Environmental Health

Association between Ambient Air Pollution and Hospital Length of Stay among Children with Asthma in South Texas

Juha Baek, MPHA; Rita A. Kasah, PhD, MBA, FACHE; Xiaohai Xu, PhD; Mark Benden, PhD, CPE; Jon Roberta, MD, FACP; Genov Carrillo, MD, Sol.

BACKGROUND
- Hospital length of stay (LOS) is a significant determinant of overall healthcare expenses in the United States.
- Previous studies have identified factors that affect LOS to improve healthcare and promote effective use of limited resources.
- Despite the significant public health burden of pediatric asthma hospitalization, there are limited studies that investigate the association between air pollution and LOS for pediatric asthma in the U.S. setting.

OBJECTIVE
To examine the short-term effects of ambient air pollution exposure on LOS among children with asthma in South Texas.

STUDY SETTING
A total of 111 children ages 0-18 years old who were admitted to a children’s hospital in South Texas due to asthma between January 1, 2010 and December 31, 2014.

METHODS
- Data sources: hospital’s electronic database, Centers for Disease Control and Prevention (CDC), and Texas Commission on Environmental Quality (TCEQ).

RESULTS
- Table 1: Descriptive Statistics of Study Population (n=111)

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<th>Variable</th>
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<td>Sex</td>
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</tr>
<tr>
<td>Race</td>
<td>White</td>
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- Table 2: Results of associations between air pollution and hospital LOS

The multivariate logistic regression model showed significant associations between air pollution and LOS.

DISCUSSION & CONCLUSIONS
- This is the first study to date that revealed the adverse effects of ambient air pollutants on hospital LOS for pediatric asthma in South Texas.
- Hospital leaders will be able to understand that outdoor air pollution could be an important indicator for identifying pediatric patients with asthma who have a risk for longer LOS.
- The findings also suggest that the importance of outdoor air pollution on asthma control and management should be emphasized in asthma education for patients.
Borderline Methicillin Resistant Staphylococcus Aureus, An Underappreciated Emerging Public Health Threat

Oluwakemi Alonge
MPH candidate, Epidemiology
Desigining A Gestational Diabetes Curriculum for Community Health Workers in The Texas-Mexico Border: A Culturally Competent, Community-Based Approach

Maria Roque
DrPH student, Public Health Sciences
Concentration: Health Promotion & Community
15th Annual Jean Brender Student Research Poster Awards: Undergraduate

1st Place

Assessing the Social Determinants of Health Insurance in Ethiopia, 2011-2016

Natalie Freeman
Sanam Maredia
Allen Nguyen

Background & Objectives
- Ethiopia launched the Health Extension Program in 2003 with the goal of achieving UHC by 2020, as well as improving health infrastructure.
- Governmental programs such as the Health Extension Program (HEP) and the Pharmaceutical Fund and Supply Agency have been established in order to expand health care services to rural areas.
- The purpose of this research is to assess and compare the social determinants of health insurance and the relationship between media exposure and health insurance in Ethiopia between 2011 and 2016.

Methods
- The Ethiopia Demographic Health Survey rounds for 2011 and 2012 were used for this study. This DHS is a nationally representative survey-based on a single stage cluster sampling units across the region, which are stratified into urban and rural residence. The 2011 and 2012 data were merged.
- Data were gathered for 10,140 households aged 15-49 years old. The 2011 data included 10,140 households aged 15-49 years old. The 2012 data included 10,140 households aged 15-49 years old.
- This research assesses Pearson Chi-square test for bivariate relationship and multivariate logistic regression to demonstrate how these socio-demographic factors influence health insurance status.

Results
- In 2011, males were 42% significantly likely to be covered by health insurance whereas in 2016, males were 35% significantly less likely to be covered compared to females.
- Urban compared to rural residence, rural residence was statistically significantly likely to be covered (49.0%) in 2011 with a p-value of 0.000, but not statistically significant (1.1%) in 2016 with a p-value of 0.274.
- Frequency of media exposure did show any association with health insurance coverage across years and within categories of exposure.

Discussion
- Ethiopia experienced an exponential increase in health insurance coverage, in the first year period examined. Insurance coverage was 1.18% in 2011 and rose to 4.05% in 2016.
- There exist rank order difference as well as gender difference but this was not clear and consistent in the years studied.
- Across both years examined, higher education, higher age groups, professional and manual workers, wealth, exposure to newspapers and exposure to television were associated with health insurance coverage.

Conclusion
- In order to achieve UHC in Ethiopia, particular attention needs to be paid to people with lower socioeconomic status, especially considering factors such as education, residence, and wealth.
The relationship of weather trends and incidence of zoonotic and vector-borne diseases: a literature review on the U.S.

Tesha Landry
Appendix A


Appendix A


Appendix A

(91) *Lee YJ, Radcliff TA. Community Interactions and Sanitation use by the Urban Poor: Survey Evidence from India’s Slums. Urban Studies 2020.


(120) *Mustapha TA, Chang RC, Garcia-Rhodes D, Pendleton D, Johnson NM, Golding MC. Gestational Exposure to Particulate Air Pollution Exacerbates the Growth Phenotypes Induced by Preconception Paternal Alcohol use: A Multiscale Model of Exposure. Environmental Epigenetics 2020;6(1).
Appendix A


Appendix A


(173) Tölgyesi Á, Sharma VK. Determination of Acrylamide in Gingerbread and Other Food Samples by HILIC-MS/MS: A Dilute-and-Shoot Method. Journal of Chromatography B 2020;1136-121933.


Appendix A


Research Presentations
Appendix B


(12) Han G. Sentinel Lymph Node Biopsy is prognostic in the thickest melanoma Cases and should be performed for thick melanomas. SSO 2020 - International Conference on Surgical Cancer Care, Boston, Massachusetts. March 25-28, 2020.


Appendix B


Appendix C


Appendix C


Appendix C


(79) Zheng Q. Improving the Teaching of Biostatistics in an Online Master Degree Program in Epidemiology. 5th International Conference on Distance Education and Learning, Virtual. May 22-25, 2020.
Active Research Faculty
Epidemiology & Biostatistics

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

DuPont-Reyes, Melissa Ph.D Assistant Professor Childhood Violence Victims and Psychological and Developmental Repercussions of Childhood Violent Crimes or Events. Spanish Media and Health Outcomes.


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

Han, Daikwon Ph.D 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 Ph.D Associate Professor Biostatistics. Personalized Medicine and Development of Methods. Survivor Analysis. Trial Design for Clinical Trial Methods. Time to Event Data Analysis. Economically and Ethically Reduce Time of Clinical Trials.

Kalbasi, Shaida Ph.D Instructional Assistant Professor Health Disparities, Women’s Health, Quality of care for Immigrants, and Racial Minorities, Effect of Discrimination, and Race Relations on Health outcomes.


Regan, Annette Ph.D Assistant Professor Vaccine Epidemiology, Vaccine Safety, Respiratory Infections. Maternal, Infant and Child Health, Birth Spacing, Preterm Birth & Stillbirth, Digital Health Tools.

Roh, Taehyun Ph.D Assistant Professor Arsenic and Water pollution of water supplies. Clean Water Access in Rural Populations. Toxicology and Environmental Health.

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

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

Zhao, Hongwei Ph.D Professor Survival analysis and longitudinal data analysis, Quality-adjusted lifetime estimation, and costeffectiveness analysis conducted with censored data, Problems arising from correlated data from longitudinal studies, and multilevel epidemiological studies.

Environmental & Occupational Health

Appiah, Bernard Ph.D Assistant Professor
Public Health Communication/Writing, Global Health, Public Health Research Methods, Patient/Health Advocacy. 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 Ph.D Department Head, Associate Professor Human Factors, Safety Engineering, Process Safety Management, and Ergonomics Office worker obesity, classroom ergonomics and childhood obesity, medical device development and testing, and rehabilitation engineering.

Carrillo, Genny M.D., Sc.D Associate Professor

Cizmas, Leslie Ph.D Instructional Assistant Professor
Basic Environmental Toxicology, Global Health.

Johnson, Dennis MPH, CIS, CPH.
Graduate Program Manager

Johnson, Natalie Ph.D Associate Professor
Environmental & Occupational Diseases, Environmental Health & Toxicology, Mechanisms of Disease Prevention. Environmental carcinogens; Environmental health disparities; Exposure to foodborne (aflatoxins) and environmental carcinogens (polycyclic aromatic hydrocarbons); Chemoprevention; Development of biomarkers of exposure to traffic-related air pollution; Prenatal exposure to air pollution and associated epigenetic changes; Dietary interventions to prevent environmentally-induced asthma; Population-based animal models of allergic airway disease.

Maddock, Jay Ph.D Professor
Health, Wellness, and Physical Activity, Diet, SocialEcological Approaches to Increasing Physical Activity; Nutrition, Tobacco Use, and Global Health.

McDonald, Thomas Ph.D Regents Professor
Environmental Measurements/Chemistry. Environmental chemistry, petroleum geochemistry, and general organic chemistry.

Environmental & Occupational Health

Ory, Marcia Ph.D Regents & Distinguished Professor / Associate Vice President for Strategic Partnerships (TAMHSC) / Public Health Interventions. Aging and Health promotion. Chronic Disease Management; Health Technology and Community Engagement. Translational research.

Peres, S. Camille Ph.D Associate Professor
Human Factors, Research Methods, Alternative Displays. Biomechanics of Human-computer interactions, Design guidelines for auditory displays, and usability of home health care technology. Worker safety, human systems integration, human systems engineering, ergonomics, procedures, engineering psychology, occupational safety.

Pickens, Adam Ph.D Instructional Assistant Professor Occupational Safety, Industrial Hygiene, Ergonomics, and Biomechanics. Ergonomic tool development; Occupational safety screening/tool development, Upper extremity modeling; Manual materials handling, and Occupational biomechanics.

Antonio Rene Ph.D Associate Professor Occupational/Environmental, Chronic Disease Epidemiology.

Sansom, Garret Ph.D Research Assistant Professor Environmental health policy and planning, Community Resilience, Sustainable development, and public health, Field research methods, Community engagement strategies.

Sharma, Virender Ph.D Professor Environmental, Physical, Analytical Chemistry. Iron-Based Oxidants (Ferrates and Ferrites), Kinetics and Mechanism of High-Valant Transition Metals, Advanced Oxidation Methods, Solar-Based Photoactive Materials in Water Treatments, Green Synthesis of Nanoparticles, Formation, Fate, and Toxicity of Nanoparticles in the Aquatic Environment.

Smith, Matthew Ph.D Associate Professor. Health Risk Behaviors Across the Life Course; Evidence-based Programming for Older Adults; Program Evaluation; Measurement; Survey Research Methodology. 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.
Health Promotion & Community Health Sciences

Burdine, James Ph.D Interim Department Head / Professor Community Health Development; Community Organization and Assessment; Community Health Status Assessment. Measurement of factors influencing community capacity for population health improvement and community health development strategies, particularly community health needs assessment.


Colwell, Brian Ph.D Professor Social Ecology and Health Behavior; Seminar on Alcohol, Tobacco, and Other Drugs. Adolescent smoking cessation; school health education; youth smoking prevention; adolescent mental health and substance abuse.

Delgado-Rendon, Angelica Ph.D Instructional Assistant Professor Entertainment education projects such as telenovelas and fotonovelas to educate communities about various health topics.

Flores, Krystal Ph.D Instructional Assistant Professor Maternal and Child Health, Border Health (Rio Grande Valley, TX), Adolescent Pregnancy Prevention along the Texas-Mexico Border, Health disparities among vulnerable populations (including Latinas, adolescents, and immigrant children).

Garcia, Robert Ph.D Instructional Assistant Professor Community-based approaches to cancer prevention in Latino populations (the US and abroad), Development of culturally appropriate and relevant interventions for diverse populations, Creation of community, academic, and government collaborations to improve health outcomes, Tobacco regulatory science, Tobacco use disparities, Cancer disparities.

Jones-Mckyer, Ellisa Ph.D Associate Dean for Climate & Diversity / Professor Minority health issues and health disparities; Parental influences on child health behaviors and outcomes; Socioecological factors of health behaviors.


Mier, Nelda Ph.D Instructional Assistant Professor Chronic Disease Prevention, Quality of Life through Behavioral Change in Mexican Americans of all ages living in Texas-Mexico border region, Physical Activity Among Mexican Americans, Intervention Research to Enhance Physical Activity Patterns, Diabetes Prevention Among Children and Adults in Border Region, Promotoras Model (Community Health Workers) in Border Regions.
Health Promotion & Community Health Sciences

**Sharkey, Joe Ph.D Professor**
Social and Behavioral Research Methods; Program Evaluation; Mixed-Methods Research; Environment and Policy Assessment. Food access and food choice in underserved areas, food insecurity and hunger, childhood obesity, and effects of structural and individual characteristics on nutrition, physical activity, and health outcomes, promotora empowerment, community-engaged approached to population health.

**Spengler, John Ph.D, J.D. 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.

**Stasi, Selina DrPH Instructional Assistant Professor**
Access to and physical activity promotion within underserved communities and communities of color, through community-based research, asset mapping, and GIS analysis. Research regarding physician-based physical activity counseling, prescription and referral, and youth engagement and empowerment to combat disparities in physical activity and health. Linkages between community, clinic, and church, and the role public health practitioners play to leverage resources between them all.

**Tai-Seale, Tom DrPH Instructional Associate Professor**
Social and Behavioral Determinants of Health; Program Planning; Program Evaluations; The Biology of disease. Local health systems development and community empowerment of chronic disease prevention; program planning and evaluation for the prevention and control of chronic disease; health behavior coaching.
Health Policy & Management

Andreyeva, Elena Ph.D Assistant Professor
Health economics, Spatial nature of the healthcare market, Urban/regional/rural economics, Health Insurance effects on policies of healthcare delivery, Risky health behaviors.

Bolin, Jane Ph.D, J.D., R.N Professor.
Health Law and Ethics, Regulatory Compliance; Cancer Screening and Prevention; Diabetes Self-Management; Chronic Disease Management; Interdisciplinary and Translational Research; Rural Health Research.

Callaghan, Timothy Ph.D Assistant Professor

Carrino, Gerard Ph.D Instructional Professor

Côté, Murray Ph.D Program Director/ Associate Professor Operational Analysis. Health Services Delivery Methods (Tele/Drone). Project Management in Rural Hospitals. Information Asymmetry in Doctor/Patient Encounters.

Ferdinand, Alva Ph.D, J.D. Assistant Professor
Impact of laws and other policies relative to public health outcomes such as roadway safety, obesity, and access to care. Other interests include state and federal regulation of health care and community health development.

Griffith, Jennifer. DrPH Associate Dean for Academic Affairs/ Instructional Associate Professor

Hatala, Jeffrey. Ph.D Program Director/ Instructional Associate Professor
Public health systems and service research; Rural health, health policy, and vulnerable populations; Nutrition, physical activity, obesity and related conditions; Educational pedagogy in health professions.

Kash, Bita MBA, Ph.D Professor
Organizational capacity for change and transformation; Change implementation in healthcare; Healthcare strategic planning and marketing; Quality and Cost of Care.

Kum, Hye-Chung, Ph.D Associate Professor
Data science for health care; population and health informatics; analysis of big data; decision support systems for health policy and management. Machine Learning.
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65 new external grants and contracts were awarded to SPH researchers during CY 2020 totaling $7,421,288

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The Texas A&M University is a Council on Education for Public Health (CEPH) accredited institution.

Contact Us:
Texas A&M University School of Public Health
212 Adriance Lab Road
1266 TAMU
College Station, TX 77843-1266