Jiann-Ping Hsu College of Public Health Magazine

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Our Mission

The mission of the Jiann-Ping Hsu College of Public Health is to improve health, eliminate health disparities and health inequities of rural communities and underserved populations globally through excellence in teaching, public health workforce development, research, scholarship, professional service and community engagement.

A Message from the Dean

April first marked three years since I joined Georgia Southern University as the dean of the Jiann-Ping Hsu College of Public Health. It seems like yesterday when I sat down to write my first message for this magazine.

Over the past year, we have established five departments, moving from a matrix structure to a departmental structure. I have three great department chairs, Dr. Joseph Telfair, Dr. Robert Vogel, Dr. Jerry Ledlow. Our Associate Dean, Dr. Stuart Tedders, has been promoted to senior associate dean and Gulzar Shah is Associate Dean for Research.

We are in the process of completing major assessments of our various programs and courses with particular emphasis on student learning – assuring that students complete their degrees with the competencies that they will require in the workforce. We are nearing completion of a revision of our Doctor of Public Health (Dr.P.H.) in Leadership degree to make it more responsive to the needs of working students. This program will be online so that future public health leaders from all parts of Georgia and outstate areas have access to a quality doctoral program. We are starting work on developing an online Certificate in Public Health that will help currently employed professionals improve their public health skills without needing to leave their place of employment. Both online programs will partner with the Centers for Teaching and Technology to assure that these programs are using the latest technology and distance education pedagogy to make these programs the best in the state.

In addition, Dr. James Stephens, director of the Health Administration Program, has been working with the faculty to revise the Master of Health Administration (MHA) degree to assure that it addresses the current needs of health administrators. We are also working on several undergraduate minors and pre-health profession tracts. We have nearly completed our promotion and tenure guidelines to enhance their objectivity and are revising the yearly faculty evaluations so that they will be more useful for mentoring faculty. We are starting to investigate the feasibility of developing a Dr.P.H. in Epidemiology. A major effort this year will be writing the self-study for our reaccreditation by the Council on Education for Public Health. A draft of the self-study is due in November in preparation for an April 2016 site visit. We will be calling on our alumni and practice community leaders to contribute to the writing of the self study.

The efforts that the faculty, staff and students have all put forth over these past three years will, I believe, lead to the continuing improvement of what is already a strong college of public health.

Sincerely,

Greg Evans, Dean
Counter Culture
Cancer Screening Outreach Empowers Quechua Women

Professor John (Juan) Luque, Ph.D., from the JPHCOPH Department of Community Health Behavior and Education is leading an international team of researchers that includes Dr. Daron Ferris, (Georgia Regents University Cancer Center) and staff from the CerviCusco Clinic in Cusco, Peru, on a study titled, “Implementation Evaluation of a Cervical Cancer Screening Initiative in Cusco, Peru.” This two-year study is funded by the National Cancer Institute, one of the major institutes at the National Institutes of Health. The study has two primary aims: (1) to evaluate the social, behavioral, and cultural factors that impact cervical cancer screening among indigenous Quechua women; and (2) to develop and pilot an educational intervention to increase screening uptake and follow-up among indigenous Quechua women attending screening outreach campaigns.

Peru is characterized by high cervical cancer incidence and mortality rates because of low screening rates, and lack of a culture of preventive care. Rough estimates place cervical cancer screening coverage between seven and 43 percent of the eligible population. Most women are diagnosed with advanced cervical cancer when few treatment options are available and survival rates are poor. “This study illustrates how the synergy of research and an impoverished population advances the discovery process while also producing practical outreach strategies to reduce anxiety experienced by women isolated from modern medical care,” said Luque.

CerviCusco is a Peruvian nonprofit, which is currently delivering a liquid-based Pap test to more than 75,000 women in Cusco in their stationary clinic and in screening outreach campaigns. The research coordinator at CerviCusco has facilitated the study by surveying 30 patients attending the clinic and screening outreach events. Luque conducted 16 key informant interviews with health care providers at CerviCusco and the public health departments. Several themes emerged from the interviews. First, participants reported that many women were either unfamiliar with or fearful of the Pap smear, especially in indigenous rural communities. Second, participants agreed that the general public had a negative view of the public Ministry of Health system because of limited hours, poor attention, and long wait times. Third, regarding CerviCusco itself, it was noted that there was a quick turnaround time for Pap results (generally two or three days) in comparison with the public sector.
Thirty patients responded to a knowledge, attitudes, behavior and practices survey. They were asked to comment on the services they received at CerviCusco. One theme running throughout the surveys was the perception that the general population lacked a culture of preventive health care and would wait until symptoms were severe before seeking treatment. The patients said the prices were reasonable and patients attending the health campaigns liked that the services were free and of good quality. Approximately one-third of patients said they had never heard of cervical cancer, and all of these patients identified as Quechua. Of those who had heard of it, most said they had heard about it in the health department. For many of the patients attending the screening outreach clinics, it was the first time they had received a Pap test.

Current efforts involve distributing photo novellas created for the project using a word-of-mouth strategy and a radio advertising campaign to boost attendance at a screening outreach campaign in a small community 70 kilometers south of Cusco. CerviCusco is fulfilling a need in a low-resource country for reliable cervical cancer screening with the capability of providing follow-up care. Challenges are related to the travel distance for some patients and difficulty in contacting patients for necessary follow-up. CerviCusco has demonstrated its capacity to provide screening outreach campaigns to populations who had not previously had access to liquid-based cytology services. The results of this study will inform a health education and promotion strategy as a complement to these periodic campaigns that can be tested with other communities.
Global Link

Social Media Research Links the College Globally

"Social media is now part of everyone's life, especially that of young people. However, how we can make use of social media to effectively improve public health remains a challenge," said Isaac Chun-Hai Fung, Ph.D., assistant professor of Epidemiology at JPHCOPH.

Since he joined JPHCOPH in August 2013, Fung has been working with Dr. King-Wa Fu and Dr. Zion Tsz Ho Tse to study social media in public health. Based in the Journalism and Media Studies Centre, the University of Hong Kong, Dr. King-Wa Fu is an internationally renowned expert in social media research, and is the first to quantify the Chinese government's social media censorship. Dr. Zion Tse at the University of Georgia College of Engineering, is an expert in medical robotics and recently started social media research with Fung.

"Our consortium is dedicated to identify solutions to public health challenges, through practical and yet innovative means. As seen in our recent publications, our team manages to stay competitive internationally," explained Dr. Fung.

Working with their students and other collaborators, this trio has published a research article "Chinese social media reaction to the MERS-CoV and avian influenza A(H7N9) outbreaks" in Infectious Diseases of Poverty, a correspondence on "Ebola and the social media" in The Lancet, and a letter on "Converting Big Data to public health" in Science. Their article on "Chinese social media reaction to information about 42 notifiable infectious diseases" has been accepted for publication in PLoS ONE. Furthermore, Drs. Fung and Tse, with their NIH collaborators, published a letter on cyber security in Science.

"International collaboration brings expertise and resources together," says Fung. "To me, partnering with Dr. Tse at UGA and Dr. Fu at the University of Hong Kong to conduct social media research brings mutual benefits to all three institutions. This is a win-win situation."

Fung also thanked JPHCOPH administration and colleagues for their support. "JPHCOPH provides a nurturing environment for young academics such as myself. They see the value of supporting young faculty who thinks outside the box."

Dr. Fung visited the Journalism and Media Studies Centre of the University of Hong Kong as an honorary assistant professor in summer 2014 and plans a return visit this summer.
Testing the Water
When people in Ghana buy water off the street, what are they really getting?

Christina Beslin is a second year Master of Public Health student in the Environmental Health Department at JPHCOPH. She is working towards completing her capstone project under the supervision of faculty member, Dr. Asli Aslan. Beslin spent five weeks this past summer in Ghana, and in addition to her duties within the Study Abroad Program with JPHCOPH faculty member Dr. Afriyie-Gyawu and Center for Addiction Recovery Director Emily Eisenheart; she collected water sachets from several locations to test for microbiological pollution. Water sachets are one of the main sources of potable drinking water people in West Africa. These small sealed packets of water are inexpensive to purchase, approximately 20 cents per bag, and they are sold on the streets of Ghana, with little information about their sources. Water sachets are not regulated in terms of sanitation and hygiene and are very profitable due to low production cost.

Beslin’s capstone project will identify the microbiological pollution in these drinking water sources. This pilot data is expected to provide results for estimating public health outcomes and initiate discussions for implementation of better health policies in the country of Ghana.

Christina Beslin captured these images on her research trip to Ghana.

These small sealed packets of water are inexpensive to purchase, and they are sold on the streets with little information about their sources.
College News

Advanced Epidemiology Research Globally

Laboratory of Public Health Security, School of Public Health, Fudan University, China, Dr. Jian Zhang (seated in middle of front row) from the Jiaan-Ping Hau College of Public Health (JPHCOPH) at Georgia Southern University, and Professor Fei Yan of Fudan University successfully organized a summer workshop on Advanced Epidemiology Research for the graduate students at Fudan University. The cases used and the work completed by students in this workshop have been published in the Journal of Global Public Health, International Journal of Health Planning and Management, American Journal of Preventive Medicine and others are planned. As part of global measles elimination efforts, Professor Zhang is also monitoring the progress in measles elimination in Guangxi Zhuang Autonomous Region, one of China’s five minority-populated, provincial-level administrative divisions with a population of 50 million people. Ranked low among mainland China’s 31 administrative divisions in terms of gross domestic product (GDP) per capita, Guangxi has long struggled with the shortage of labor and financial support to public health service. Its subtropical weather and mountainous terrain impede immunization service, particularly cold chain integrity. The high birth rate among minority populations makes it more vulnerable to measles outbreaks. All these factors converge and make measles a deeply seeded endemic problem in Guangxi, and “business as usual” would not get the elimination done in Guangxi in a timely manner. Innovative strategies have been explored, and efforts have been extended to accelerate the elimination. Professor Zhang and his Chinese collaborators have published their report in the Journal of Infectious Diseases to share Guangxi’s pioneering experience with the global community and provided additional information for fine-tuning the WHO-recommended elimination strategies. Newly designed HIV education strategies are also being pilot tested in Longzhou, Guangxi, by the director of Guangxi Center for Disease Control and Prevention and Zhang.

Continued Collaboration

Dr. Karl E. Peace, Professor of Bio statistics at JPHCOPH and Georgia Cancer Coalition Distinguished Cancer Scholar, continues to mentor and collaborate with biostatistic students and alumni. Currently, he is working with Yi Hao, a second year Ph.D. in biostatistics student on clinical trial research called “Selecting the Best Function of Baseline Run In Data to use as a Covariate in the Analysis of post-baseline Treatment Data.” Dr. Peace and Dr. Macaulay Okouwenye, a recent Dr.P.H. in biostatistics graduate and senior biostatistician at Biogen-IDEC Pharmaceuticals, continue to pursue research together. This collaboration has led to four recent publications, “Size and Power of Tests of Hypotheses on Parameters when Modeling Time-to-Event Data with the Lindley Distribution,” “Size and Power of Tests of Hypotheses on Parameters of Two Generalized Lindley Distributions,” “Rates of Chlamydia, Gonorrhea, and Genital Herpes Before and After Spring Break and Homecoming at a Southeastern American University” and Olayeye BO, Okwukweneke M, Peace KE (2015): “Inequalities and Approximations of Weighted Distributions by Lindley Reliability Measures, and the Lindley-Cox Model with Applications.” International Journal of Statistics and Probability, 4(2).

Students Excited About Working on Global Infectious Diseases

Assistant Professor of Epidemiology, Dr. Isaac Chun-Hai Fung, is an advocate of student research at JPHCOPH. He believes that research experience provides students with a set of skills that make students more marketable as they apply for jobs or pursue further education opportunities. Two biostatistics students, Yi Hao and Braydon Schable, were co-authors on his paper “Chinese social media reactions to the MERS-CoV and avian influenza A (H7N9) outbreaks” in Infectious Diseases of Poverty. Varadan Sevilimedu, Dr. P.H. biostatistics student, has worked with Dr. Fung on a systematic review about diarrheal diseases,
in which MPH epidemiology students Keisha Pressley, Kassandra Snook, Jamesa Hoggis, Maria Politis and Jessica Sexton have been involved in abstract screening and data extraction. Mathematics students Ilurui Bakach and Matthew Just have been working with Dr. Fung on a review paper on typhoid mathematical models and are working on a mathematical model on diarrheal diseases. Fung also led a team to participate the CDC's Predict the 2013-2014 Influenza Season Challenge. The team members include students Ilurui Bakach, Yi Hao, Brandy Schable and Jessica Sexton. Each student team member received a certificate of participation from the CDC. MPH graduate Pei-Ling Tseng has also worked with Fung and Dr. Levi Ross on surveys of college students on their knowledge, attitudes and perceptions of influenza-related issues.

Professional Work Groups

Dr. Julie Reagan, Assistant Professor of Health Policy and Management at JPHCOPH, provides her students with numerous opportunities to participate and attend professional work group meetings. As a committee member of the New York Safe Injection Practices Coalition, New York One and Only Campaign, Dr. Reagan promotes safe injection practices by healthcare practitioners in partnership with the CDC’s One and Only Campaign and attends committee meetings where she provides advice on legal and policy issues related to unsafe injection practices. JPHCOPH students Allison Drew, Anna Cofie, Mary Ludwig and Aaron Jackson have participated in past meetings. Cofie will continue to be involved in research revolving around the goals of this committee. In addition, Jackson attends work group meetings and conducts drug diversion research as part of the Council of State and Territorial Epidemiologists (CSTE) Drug Diversion Workgroup. Dr. Reagan serves on the advisory committee for the Drug Diversion Workgroup along with CSTE staff, CDC staff, and various state government officials from throughout the nation. Their service commitment involves attending telephone committee meetings and contributing to various policy development projects related to drug diversion occurring in health care facilities. Dr. Reagan also leads an ongoing research project pertaining to the Patient Protection and Affordable Care Act (ACA) along with Professor Kate Mercer. Students involved in that project include Jordan Burns, Angela Pittman, Katherine Pincura, and Aaron Jackson.

Service Learning

Dr. Moya Alfonso, JPHCOPH Assistant Professor of Community Health Behavior and Education (CHBE) engages her students in service learning projects. “Living well with a Disability” promotes independent living and quality of life among families of young people with disabilities in Bulloch County. “Downtown Redevelopment Project,” is a community assessment looking at incorporating low income resident’s perceptions of the downtown area’s redevelopment efforts. Adam Middleton, Dr.P.H. student in the CHBE program speaks highly of his involvement, “I enjoy the opportunities given to us to work with the Statesboro community. Dr. Alfonso’s classes have always given us the chance to work with community leaders and create partnerships with organizations in and around Bulloch County. These experiences help us take what we learn in the classroom and apply it to the real world.”

Self-Esteem in Children

Dr. Helen Bland, JPHCOPH Professor of Community Health Behavior and Education, and public health students Shelly Good and Raven Young conducted a study to assess parental perspective of self-esteem of children in elementary school. The research was conducted in southeast Georgia and northwest Georgia and showed that more than half of parents of children in elementary schools believe that their child has high self-esteem, with no self-image concerns. This research was accepted and recently presented at the prestigious National Youth-at-Risk (NYAR) Conference in Savannah, Georgia. Based on her experience, Good says, “Presenting at the YAR Conference was an incredible experience and an unbelievable opportunity that I encourage all BSPH students to embrace. Dr. Blend’s dedication and my experiences throughout the Health Education and Promotion have paved the way for continued success and will always be remembered.”

Ghanaian Collaboration

Dr. Evans Afrirje-Gyawu, JPHCOPH Associate Professor of Environmental Health Sciences, travels with a group of students each year to Ghana to work collaboratively with Ghanaian students and professionals on public health projects. The “toxicological and public health implications of the use of scrap rubber tires for singing meat in Africa” study looks at the potential health risks of this practice. Automobile tires are made of various hazardous chemicals that, when released into the environment via tire burning, emit chemicals through the smoke that do not only contaminate the meat; the associated toxicological implications on human health and the environment constitute major and persistent challenges to the medical and public health communities.

A second collaborative project is the “conversion of existing paper-based patient charts into electronic medical records at the Komfo Anokye Teaching Hospital (KATH) in Kumasi, Ghana.” This project is aimed at digitizing paper-based patients’ medical records into electronic formats that can be incorporated into the existing or prospective electronic medical records system at the KATH. The overarching goals of the project are to generate computable and searchable data for research and hospital use, analyze health trends, effectively reduce the volume of physical paper records stored throughout the hospital – which is currently a major fire hazard, provide insights into identified challenges associated with the conversion process, and ultimately improve health care practices or treatment protocols in Ghana.
Research

Improvement of Water Quality in a Rural Beach Under Permanent Swimming Advisory

**PROBLEM:** High concentrations of a fecal indicator bacteria have been detected at Kings Ferry Beach.

**CONCLUSION:** Students can track the source of contaminants to determine where the pollution is coming from.

A collaborative study including Drs. Asli Aslan and Marina Eremeeva, (JPHCOPH Environmental Health Sciences Department) and Dr. John Van Stan, (Geology and Geography Department at the Georgia Southern University College of Science and Mathematics) received funds from the National Oceanic and Atmospheric Administration (NOAA) and Georgia Department of Natural Resources (DNR) to conduct research for identifying pathogen sources and their influence on human health and beach water quality. The study has been ongoing since October 2014 at Kings Ferry Beach. The beach has been under permanent advisory since 2005 because of high concentrations of enterococci, a fecal indicator bacteria to detect pollution at recreational marine beaches.

Several students in the JPHCOPH are participating in this project and gaining field and laboratory experience in Environmental Health Sciences. The team is using state of the art microbial source tracking techniques (i.e. quantitative PCR and sequencing) to determine whether these sources are of anthropogenic or natural origin, such as recent contamination caused by sewage, persistent pollution due to resuspension from sediments or wildlife. The results of this project will be disseminated through a series of public meetings jointly organized by Georgia Southern University, Chatham County Health Department and Ogeechee Riverkeeper, to educate public on recreational activities and health outcomes at rural beaches of Georgia.

Head Louse Infestation in Georgia Schools

**PROBLEM:** Head louse infestation is the most prevalent communicable parasitic infestation in humans, and is mostly found in children.

**CONCLUSION:** Studying current cases of head louse infestation in Georgia schools and comparing them globally will characterize the local problem to reduce the impact.

Head louse infestation or pediculosis is the most prevalent communicable parasitic infestation of humans. Several million new cases are treated annually in the United States, most of them among children. Dr. Marina Eremeeva (Associate Professor of Environmental Health at JPHCOPH) leads a collaborative interdisciplinary project with participation of faculty and
students from the JPHCOPH and Georgia Southern University College of Science and Mathematics. The main purpose of this project is to conduct a survey of head louse infestation in schools of Georgia and to characterize associated health risks for those affected based on the fundamental properties of their lice and pathogens they carry. One of the critical issues is to evaluate the sources and means of spread of lice, and to assess their susceptibility to commonly used over-the-counter insecticides.

The project success relies on collaboration with a large network of school nurses who collect and submit lice for testing. Samples from other states and from overseas, as far as Russia and Madagascar are contributed by external collaborators, so the information about local louse population is put in a context of global findings. The students from different disciplines contribute to various aspects of the project. DeAndre Woods ('14, Epidemiology MPH) was instrumental in collecting samples; Emmanuel Wintu ('15, ENVH MPH) and Danielle Capps ('15 ENVH MPH) conducted laboratory testing in search of biomarkers of permethrin resistance and biomarkers of infection by Bartonella quintana, the agent of trench fever. Sarah Braswell ('15, Biology) is doing her MSc thesis research on genetic characterization of louse endosymbionts and determining whether a new less toxic, biological control approach for controlling and determining whether a new less toxic, biological control approach for controlling and treating this human condition may be possible.

Dr. Eremeeva stated, "Our goal is to further characterize the specific features of contemporary head louse infestations in this part of Georgia, in order to reduce the impact of this significant social, psychological, medical and public health problem on local schools, children, and their parents. This project provides an opportunity for our students to get practical experience in public health and to serve our local communities."

Beach water quality and microbial source tracking at Tybee Island

**PROBLEM:** The stoichiometric algebraic statistical model for for biochemical network dynamics inference study is appealing and intuitive, but it need more heuristic study.

**CONCLUSION:** The SASM model is now expanded to a wider class of reaction systems decomposable into multiple conic subnetworks.

Sara is a second year Environmental Health MPH student and completing her capstone project under the supervision of JPHCOPH Assistant Professor of Environmental Health Asli Asian. In this project, she is exploring the sources of point and non-point pollution at Tybee Island beaches and their effect on public health. Sara is using culture based and molecular methods to detect fecal indicator bacteria and pathogens in these recreational waters. Sara will continue her graduate education in Environmental Sciences upon graduation from our college, as she has just been admitted to a doctoral program at Notre Dame University.

Microbial contamination of recreational waters may cause waterborne diseases including gastrointestinal diseases, respiratory illnesses, skin rashes, and ear and eye infections. In the last two decades, there has been a 250 percent increase in waterborne outbreaks related to recreational water exposure in the Southeast U.S. The pathogens responsible for these illnesses demonstrate seasonal trends, with outbreaks peaking during summer recreational months. Tybee Island is one of four public beach communities in Georgia. The permanent resident population of 4,000 people grow to 30,000 on summer weekends. Therefore, beach water quality poses significant health risk in this area during the summer.

**CONCLUSION:** The SASM model is now expanded to a wider class of reaction systems decomposable into multiple conic subnetworks.
Dr. Mase Joins the JPHCOPH Faculty

Assistant Professor of Health Policy and Management Bill Mase, Dr.P.H., joined the Jiann-Ping Hsu College of Public Health (JPHCOPH) at Georgia Southern University in August 2014. Previously, he served on the faculty at both the University of Cincinnati College of Medicine (2008-14) and Wright State University School of Medicine (1993-2008).

Mase and JPHCOPH colleagues have been awarded $267,500 in new and continuing research funding. The funding from the United States Food and Drug Administration supports research on standardization of the nation's local health departments' food protection staff.

Results of this needs assessment will assist leadership in southwest Georgia in developing health care workforce initiatives to best serve Georgia residents. This spring, the research team will provide a work plan toward the objectives of establishing and maintaining local health care delivery systems. Dr. Mase stated, "It is truly an honor and privilege to serve on the faculty here at JPHCOPH. The support afforded faculty to develop quality education for our students, advance transformative public health research, and serve our diverse communities is unparalleled."

"Dr. Mase is an extraordinary professor and role model.

-Student of Dr. Mase
Alumni

Alumnus Named CEO

Trevor Castaneda has become the first graduate of the Master of Healthcare Administration (MHA) program to become Chief Executive Officer of a hospital. He was recently named CEO of Effingham, Newport Medical Center in Newport, Tennessee.

"The education I received helped pave the way for me and has played a pivotal role in my success," he says. "My career in healthcare administration began as an assistant administrator at Tuscawilla Regional Medical Center where I was responsible for the administrative oversight of various departments within the hospital including, Rehab Services, Wound Care Services, Cardiopulmonary Services, Plant Operations, Clinical Engineering, Environmental Services, Nutritional Services, Outpatient Geriatric Psych, Laboratory Service, and Dialysis. However, it wasn’t until my time as an undergraduate student at Georgia Southern University, while working as a rehabilitation tech at East Georgia Regional Medical Center, that I first realized how health care was so much more than an annual sports physical, a sick visit with your family physician or even a routine surgery." Castaneda added that he came to realize that healthcare, "especially within the hospital setting, was a sophisticated network of physicians, nurses, pharmacists, laboratory technicians, case managers and many others, all working together to achieve a common goal. The thought of being a part of something so rewarding and of such magnitude ignited my desire to learn even more about healthcare and all the various roles individuals played within the system. It was during this time that I discovered healthcare administration. I was fortunate enough to learn that Georgia Southern University offered a master’s degree in healthcare administration."

Before his appointment as Chief Executive Officer of Newport Medical Center in Newport, Castaneda served as the Chief Operating Officer at Barrow Regional Medical Center in Winder, Georgia, and Harton Regional Medical Center in Tullahoma, Tennessee and as the interim Chief Executive Officer at Williamson Membrani Hospital in Williamson, West Virginia. Newport Medical Center is a 74-bed acute care hospital that serves East Tennessee. Dr. James Stephens, MHA program director, speaks highly of Trevor saying, "The students and faculty of the MHA Program are very excited and proud that Trevor Castaneda is our first MHA graduate to be appointed Chief Executive Officer of a hospital. This is a major professional accomplishment for him and a positive image of our MHA Program. Trevor was a very strong academic student, fully engaged in what he needed to learn from his academic studies to be successful as a healthcare executive. I knew in his first year of the MHA Program that he had the focus and commitment to be successful in our profession."

Adaptation Redefined

If I had to choose one word to describe my experience in the College of Public Health, it would be adaptation.

When I started as an epidemiology graduate student at JPHCOPH, I was completing my sixth year as an EMT/firefighter in Effingham County, Georgia. Naturally, I wanted to develop a thesis centered on using data from Emergency Medical Services’ ambulance incident reports as indicators of health disparities among the communities of Effingham County. However, five years’ worth of EMS data and two thesis advisors later, my broad thesis developed into a focused study of suicide-related EMS incidents specifically comparing differences in suicidal behavior among residents of rural and urban areas of the county. While my final research thesis was not the general, exploratory study I originally designed, the results ultimately provided a better analysis of significant health disparities within Effingham County.

Adapting my thesis was not the only public health project that required me to think and work outside of my field of interest. While taking Dr. Jian Zhang’s Epidemiological Research Methods II course, my classmates and I were assigned to use data from NHANES to practice our new epidemiological skills. What started as a simple class assignment quickly evolved into a fully fledged epidemiological study that identified novel relationships among weight, body image and depression. Our final paper was published in the Journal of Affective Disorders (JOAD) in 2015. The paper generated a lot of interest in the relationship between body image and depression, and in early 2014 a health and psychology editor for Allure magazine requested an interview for their ‘Mood News’ column. I translated our results into laymen’s terms and discussed the possible impacts of our findings for Allure’s readers. The interview was published in the March 2014 issue of Allure, in an article titled "Body-Image Risk." The publication in the JOAD and the article in Allure magazine were unexpected honors for adapting a class assignment into a fully fledged epidemiological study.

Post-graduation, I have tested the adaptability of my public health training by applying traditional epidemiological and biostatistical approaches to the study of a problem that is not a disease within a population that is not human—sea level rise and its effect on Georgia’s threatened loggerhead sea turtle population. Currently, I am serving as the executive coordinator of the Georgia Southern University Sea Turtle Program at St. Catherines Island (GASUSTP@SCI). During its 25-year tenure, the program has monitored 21 km of critical sea turtle nesting beach habitat, recording biological and environmental information for every single sea turtle nest laid. My current research focuses on identifying and exploring changes in environmental variables related to sea level rise and their associations with changes in sea turtle nesting behavior and hatching success over the last 25 years.

The public health field is rapidly evolving. Careers and research opportunities now exist outside of the traditional fields of focus. As public health professionals, our ability to adapt our skills and training to applications outside of the conventional arenas will not only advance our individual understanding and practice, but also contribute to the development of interdisciplinary relationships mutually beneficial to all fields involved.

— Jaynie Gaskin, Master of Public Health in Epidemiology
GEORGIA SOUTHERN UNIVERSITY

Georgia Southern University, a Carnegie Doctoral/Research University founded in 1906, offers 125 degree programs serving more than 20,500 students. Through eight colleges, the University offers bachelor's, master's and doctoral degree programs built on more than a century of academic achievement. Georgia Southern is recognized for its student-centered approach to education and is a top choice of Georgia's HOPE scholars.

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