



Journal of the Liberty University Public Health Student Association

COMBINED EDITION



Volume III

~

2017-2019

LIBERTY UNIVERSITY

DEPARTMENT *of* PUBLIC
& COMMUNITY HEALTH

**"...a faithful envoy
brings healing."**

Proverbs 13:17

Our Purpose

The purpose of the Liberty University Public Health Student Association is to promote health, wellness, and disease prevention within the community, convey awareness of career and academic matters related to public health, and foster Christ-like relationships among students and faculty for the growth and sustainability of the Public Health program.

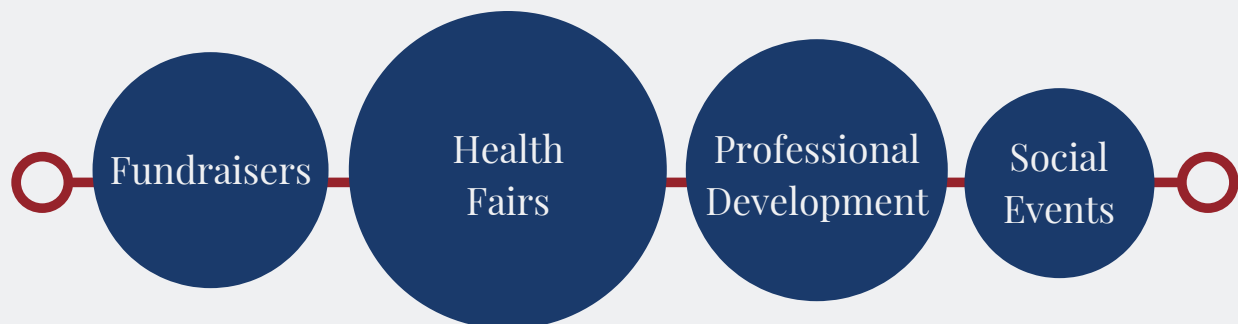


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ADVISOR *Remarks*



I cannot believe that the year has gone by so quickly. Over the course of the year the Liberty University Public Health Student Association (LUPHSA) was involved in many community, research, and health activities. As the mission that started in 2013 continues, LUPHSA has grown from 10 to 70 student members which includes both Undergraduate and Graduates students from mainly the Department of Public and Community Health (PCH) and other departments within our university.

This year many projects were executed starting from the Mixteco Health fair and assessment in Richmond where over 30 Mixteco Indians from Mexico were assessed for specific health risk factors such as Hypertension and Diabetes to the Lynchburg Community Care Collaborative that was comprised of over 30 community stakeholders and saw hundreds of people that were mainly uninsured and underserved. LUPHSA officers this year were extraordinary: they showed determination, enthusiasm, love, leadership and most of all Christ-like characters that is the embodiment of our mission verse which is Proverbs 13:17: "A faithful envoy brings healing". LUPHSA this year has served the Lynchburg and surrounding areas in Central Virginia. We are truly blessed by our department leadership, especially our Chair & Director Drs. Annette Florence & Richard Lane for their unsurpassed support and mentorship along the way. I would also like to thank the faculty of PCH for their involvement and encouragement and lastly, I would like to thank and commend our LUPHSA members of the 2017-2019 school years for their wiliness to be part of this extraordinary club, for their servant heart, service mindedness, and participation.

Sincerely,

Oswald Attin, M.S.H.S, Ph.D
Associate Professor
LUPHSA Faculty Advisor

2017-2018

A Message from our 2017-2018 President

I cannot begin to express how proud I am of the leadership team, every volunteer, and all the members of the Liberty University Public Health Student Association (LUPHSA). Compiling the LUPHSA Journal was no easy task, so thank you to all for your contribution and hard work. Every LUPHSA-sponsored event required a great deal of hard work, so I extend my deepest gratitude to all the wonderful students who volunteered their time and efforts to achieve such remarkable success. As the 2017-2018 academic year ends, I would like to take a moment to reflect on the great projects that were accomplished and the wonderful memories that were made. Ultimately, I give glory to our Lord and Savior Jesus Christ. With the Lord's strength and guidance, we were able to show Christ's love to our community.

There are four key areas that embody the purpose of LUPHSA: (1) fundraising to increase our association's capacity to be an effective public health student club, (2) conducting health fairs to educate and empower local communities, (3) professional development to equip our students to be superiorly prepared to enter the task force, and (4) social events to cultivate and grow relationships. As I reminisce on all the events that have taken place—from the Mixteco Health Fair to Fiesta Mundial—I am filled with such joy and pride, as I am so honored to have such a wonderful group of people as my peers. I have no doubt that these students are going to impact the world, and it has been an honor to serve by their side.

I pray that as you read this journal, you will also be moved by the work that the students and faculty have done, as well as compelled to make an impact in your own community. Our students are exceptional, and I believe that is because we have exceptional faculty members and mentors to look up to. LUPHSA members, thank you for all your dedication. LUPHSA leadership team, I look forward to the growth that will occur, and I have no doubt that the Lord will lead you to do even greater things.

Blessings,

Victoria Ramos,
ACSM-CEP, BS, MPH

2017–2018 LUPHSA Leadership

Victoria Ramos,
President

Gift Okaejiofor,
Vice President

Dominique Richburg,
Secretary

Ifeoluwa Ogbonnewo,
Treasurer

Candy Hernandez,
Event Coordinator

Winnie Rop,
Nutrition
Graduate Representative

Martha Mabiala,
Global Health
Graduate Representative

Jacinta Ejirefe,
Health Promotion
Graduate Representative

Esse Noudegbessi,
Epidemiology
Graduate Representative

Kristy Gonzalez
Epidemiology
Graduate Representative
Spring 2018

Shelby Todd,
Undergraduate Representative
Fall 2017
Communications Officer
Spring 2018

Naomi Sainval,
Undergraduate
Representative

Haley Grimste,
Undergraduate
Representative
Fall 2017

Faculty Spotlight

Dr. Bethesda O'Connell

By: Kristy Gonzalez

Tell me about your job at Liberty University. What is your job title and what do you do?

I am an assistant professor in the Department of Public and Community Health. My primary job responsibility is teaching undergraduate and graduate students, but I also conduct and lead student driven research and serve on a variety of committees at the school like the Fulbright Scholarship committee.

Can you tell me a little bit about where you pursued your college education and some of your related public health experience while in college?

I got all three of my degrees – bachelor's, master's, and doctorate – at East Tennessee State University (ETSU), in Public Health with a concentration in community health. I was a teaching associate and served as a research assistant at ETSU. My internship experiences while in college included a collaboration in Rwanda in my undergraduate, a malnutrition initiative in my masters, and an Appalachia service project for my doctorate.

What lead you into the field of public health?

I grew up in a church that was very missions oriented, so I knew from a very young age that I wanted to be a medical missionary (I didn't know what public health was back then). Once I got older, I looked at majors on ETSU's website and once I read the description about public health I knew that's what I wanted to do.

I see that you have been given the opportunity to work with communities in other parts of the world before. Could you tell me a little more about that?

Yes! I go to Rwanda every summer and serve a local community there. I first got offered this opportunity through an organization called World Orphans, who began creating multiple church outreach programs that churches in East Tennessee could get involved in. So, I went through my church in 2010, saw the great public health needs, and have been going back ever since. This past summer I was also able to go to Guatemala.

What public health opportunities did you get to be a part of in Rwanda/Guatemala? If you can sum up your experiences there in a couple sentences, what would they be?

In Rwanda, our public health efforts were community driven and based on the needs that members of the community voiced. I've helped with projects like helping to start a woman's cooperative, biosan filtration systems, lots of health education, malaria control campaigns, and a nutrition campaign at the children's home. I've helped give recommendations for foods to include in the children's home garden and taught in a local school there for a trimester. Overall, a lot of the work was focused on water sanitation and hygiene while also supporting the children's home throughout the years as the kids grow up. On the other hand, in Guatemala we focused on an outbreak investigation to see what makes people sick there. We also helped Watts of Love with the evaluation of their products in Guatemala.

If I could sum it up in a couple sentences, I would say,

"You earn the right to be heard through relationships and showing them that you care about them through people. You have to be willing to get out of your comfort zone and be willing to live life with them in a community setting."

Do you have any advice for undergraduate or graduate students?

I would say that what you learn in class is important but what you learn outside of class is also important. Utilize skills like time management and writing skills; they are just as valuable as textbook knowledge. Take opportunities to grow above and beyond what is required to just obtain your degree. Also, recognize that everyone's journey through school and life is different. It is important to recognize this, but also to give ourselves room to be individuals and be flexible with life decisions. Choose a spouse that is supportive of your goals as well!

Do you have any fun facts about yourself?

I have lots of fur babies! Two Siberian huskies and four cats!

Lynchburg 101 Workshop

Series: Food Deserts



LU Serve organized a workshop in the Liberty University Center for Medical and Health Sciences on November 28th regarding the food desert in Lynchburg and the organization Lynchburg Grows. Dr. John Abell, a professor of economics at Randolph College, was the first guest speaker, followed by several representatives from Lynchburg Grows.

Dr. Abell has done extensive research over the years in food sustainability and has directed his efforts to the inner city of Lynchburg. Along with several of his students, Dr. Abell examined Lynchburg's food desert, comparing grocery store prices and food availability. The research revealed inflated prices in convenience stores and practically no fresh food. Dr. Abell presented several statistics and graphs that depicted the research, as well as the general poverty rates in the city and Virginia as a whole. These findings and many more were published in the Virginia Economic Journal, 16, 41-64 as "Inner City Food Deserts: Case Study of Lynchburg, Virginia." A documentary series was also created in the form of video blogs called "The hunger-poverty nexus. Food? What is its proper role? Case Study of Lynchburg, Virginia." It can be found at this link:
<http://lynchburgfood.go.randolphcollege.edu/>.

The reality that Lynchburg has a poverty and hunger problem was stressed in Dr. Abell's presentation. Poverty never tends to be equally distributed, but rather concentrates in one area. These areas usually are forgotten and set apart from the rest of nearby society. What results is the evacuation of grocery stores from the impoverished area, and with it the fresh food. A food desert unfortunately begins to form in the area. Dr. Abell stated that according to his research Lynchburg's poverty rate (24%) exceeds that of nearby counties, the Commonwealth of Virginia, and the U.S. average. In simpler terms, a 24% poverty rate means that every fourth person that walks past you on the street lives in poverty¹.

In conclusion, Dr. Abell addressed several needs that were brought to light after conducting his research. He said that there is a need for more jobs, specifically better paying ones, in the impoverished Lynchburg areas. He referred to the idea of accompaniment from the book *Mountains Beyond Mountains: The Quest of Dr. Paul Farmer, A Man Who Would Cure the World*, encouraging people to take part in one another's struggles by truly caring. More incentives, opportunities, and funding's are needed to allow citizens who aspire to higher education to make it a reality. Lastly, people need to realize that everyone should be able to hope for a better day for themselves and their families.

Representatives from Lynchburg Grows then presented on their organization. They are a seven-acre urban farm with several flourishing greenhouses. The mission of Lynchburg Grows is "to work with our community to provide access to healthy food and afford purposeful jobs to individuals with disabilities."² Their produce supplies local restaurants, fulfills CSA needs, is given to Daily Bread, and is distributed in the community through a mobile food van program.

Overall, the workshop was very educational and interesting. It brought to light several current issues regarding poverty and hunger in our local community. In an effort to educate students about these issues, the underlying message is that if we are not part of the solution then are we a part of the problem? Liberty students have an opportunity to make change in their community by not ignoring the poverty problem and taking steps to make some change. Whether by volunteering with Lynchburg Grows to help those in need and encourage the availability of fresh food in the food desert, or by spreading the knowledge of the poverty issue to others, there is something everyone can do.

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2. Lynchburg Grows. Our Mission. Lynchburg Grows. <http://www.lynchburggrows.org/>. Accessed December 4, 2017.

2018 Lynchburg Community Care Collaborative

by Laykan Comer

On Saturday, April 7, 2018, I had the privilege to participate in the Lynchburg Community Care Collaborative (LCCC) outreach event. The Virginia Department of Health, the Virginia Dental Association, and almost 40 social/health resource programs joined students from Liberty University's Public Health department and Nursing department, Liberty University College of Osteopathic Medicine, and the Physician Assistant program at Lynchburg University to provide clinical and public health to over 200 clients. My role was to help monitor the number of clients that visited the social and health resource tables. Data collection is an important part of Public Health, because it allows us to see what resources were beneficial to the target population, and what resources were not helpful.

Throughout the day, I had the opportunity to connect clients with resource tables that would best meet their needs. Specifically, I met a gentleman who was burdened with trying to find a job that better accommodated his disabilities. I was able to connect him with LACIL Disability Services, which is nonprofit charitable organization that focuses on empowering the disabled community with the services and tools necessary to live an independent life. Through LCCC, this gentleman was able to set up an appointment with LACIL, who agreed to advocate for him to help create an environment that was more suitable for his disabilities at his current job.

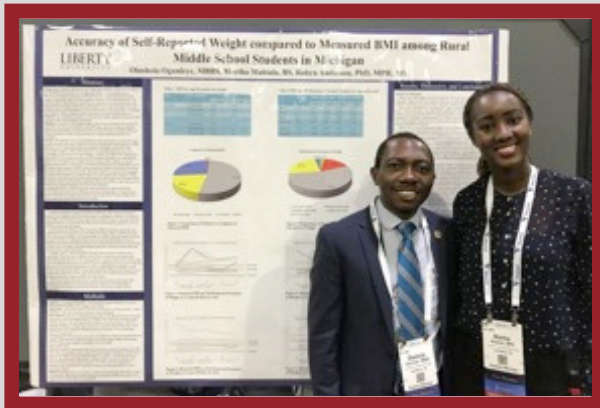
In addition to LACIL, many other services were available to the community. Some of those services include: Food and Nutrition Services through the WIC office; free eye examinations and glasses through the Lion Club; IDs provided through the DMV; mental health and addiction recovery programs offered through Horizon Behavioral Health; housing and job support was provided through several different resources; and many other services. It was a humbling opportunity to serve along the community and my peers as the hands and feet of Jesus in Central Virginia. The area I was assigned to was often the last stop before the clients left; therefore, I was able to hear many testimonies from the clients as they expressed their gratitude to finally have relief from the very thing(s) that was concerning them. Seeing the joy and smiles on the clients made this event totally worth it!

Research Events

Fall 2017 to Spring 2018

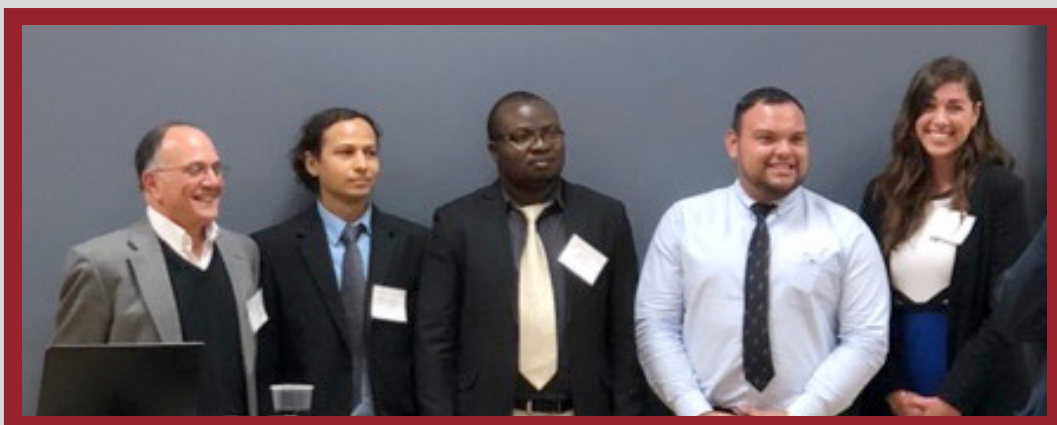
by Martha Mabiala

As future public health practitioners, research is a field that cannot be avoided. It is embedded in every aspect of public health, including policy making, program planning and evaluation, evidence-based practice determination, and disease prevention.



For LUPHSA members, research has always played a pivotal role. From November 4-8, 2017, Martha Mabiala and Olushola Ogunleye had the opportunity to attend the 2017 APHA Annual Meeting & Expo in Atlanta, Georgia, where they presented their research project entitled, "Accuracy of Self-Reported Weight Compared to Measured BMI among Rural Middle School Students in Michigan".

Liberty University Research Week took place from April 9 to April 12, 2018. More than nine LUPHSA members participated, where they presented their research projects either as a poster or an oral presentation. Of all the LUPHSA presenters, more than half were rewarded for their excellent performance during Research Week.



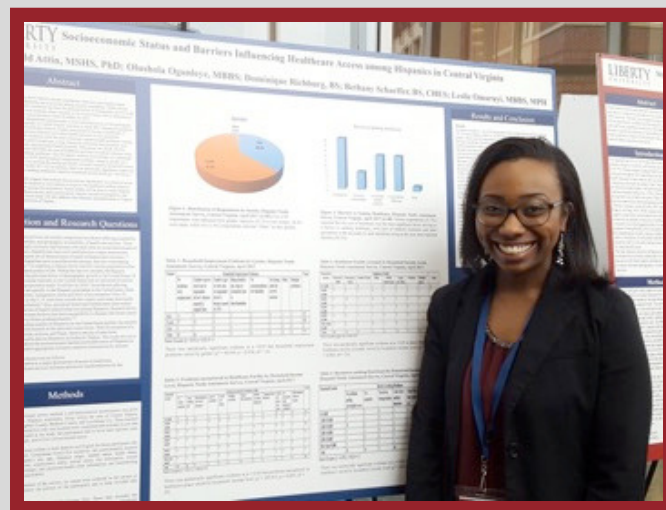
The Virginia Public Health Association (VPHA) 2018 Conference, Student Research Day and Annual Meeting took place on April 20th at the Liberty Mountain Conference Center, with the theme "Saving Lives from the Opioid Crises: A Public Health Approach Public Health research, education, prevention and treatment". Nicole Solvig, Roshan Purohit and Daniel Ekoh presented their research projects, and won 1st and 2nd place, respectively.

Research Week Poster Sessions

Dominique Richburg &
Olushola Ogunleye

"Socioeconomic Status and Barriers
Influencing Healthcare Access
among Hispanics in Central Virginia"

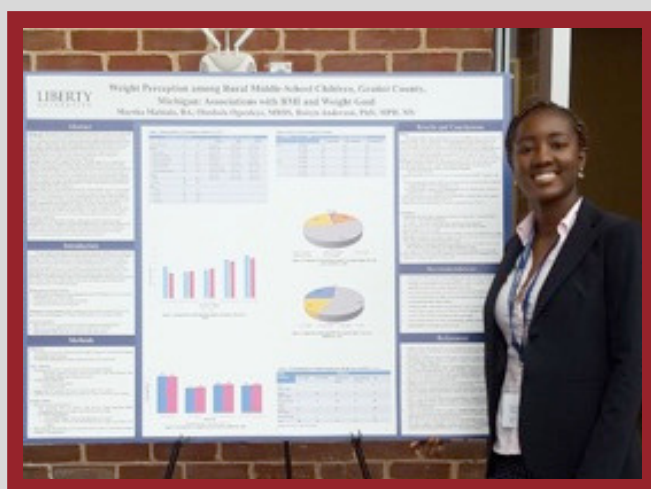
****1st Place Award, Applied Research**



Martha Mabiala & Olushola Ogunleye

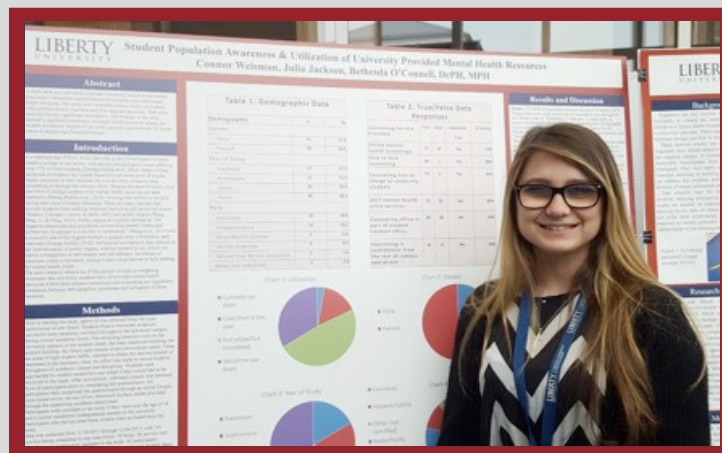
"Weight Perception Among Rural
Middle-School children, Gratiot
County, Michigan, 2015: Associations
with BMI and Weight Goal"

****2nd Place Award, Applied Research**



Connor Weisman & Julia Jackson

"Student Population Awareness &
Utilization of University Provided
Mental Health Resources"

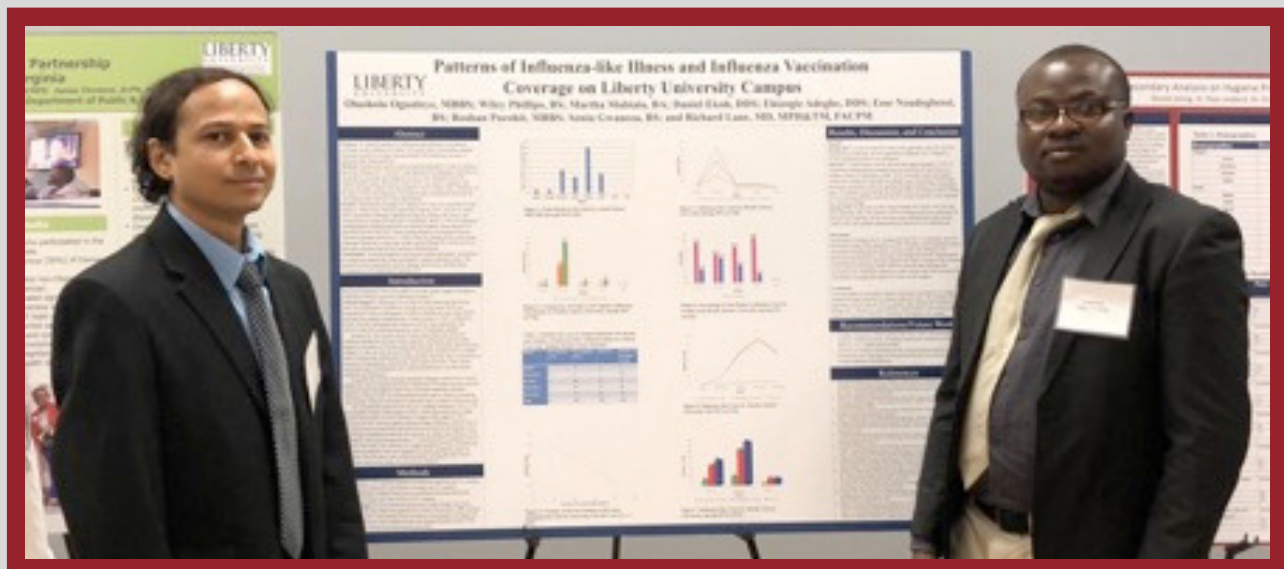


Research Week Oral Sessions

Olushola Ogunleye, Wiley Phillips, Martha Mabiala, Daniel Ekoh, Ehizogie Adeghe, Esse Noudegbessi, Roshan Purohit, and Sonia Gwaneza

"Patterns of Influenza-like Illness and Vaccination Coverage on Liberty University's Campus"

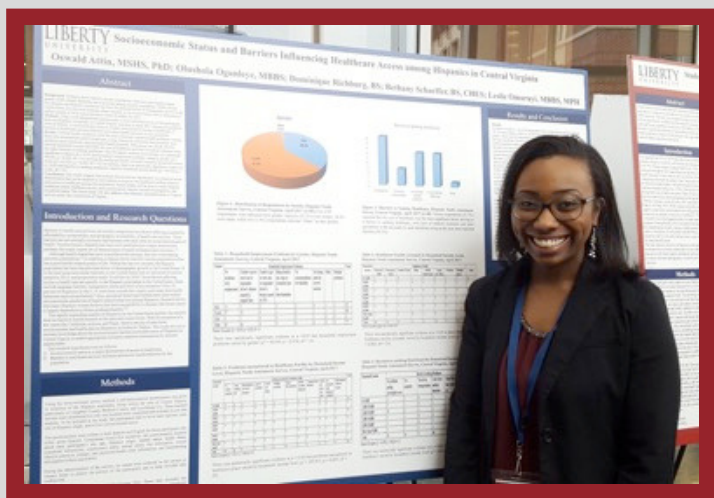
****2nd Place Award, Applied Research**



Dominique Richburg &
Olushola Ogunleye

"Socioeconomic Status and Barriers Influencing Healthcare Access among Hispanics in Central Virginia"

****3rd Place Award, Applied Research**



Mixteco Health Outreach

by Gift Ukaejiofor

The Mixteco community is an indigenous immigrant community that primarily resides in Richmond, VA. In 2016, Itza Prieto conducted a survey assessment among the population to understand their health needs. It was then that LUPHSA began to organize community health fairs to meet such needs.

Fast forward to March 30, 2018, the third year of our community outreach efforts within the Mixteco community. LUPHSA organizes community health fairs to reach at least 80 individuals each year. Our goal as a public health student association at Liberty University is to promote health, wellness, and disease prevention while sharing God's love.

This year, Candy Hernandez, LUPHSA's event coordinator, planned and organized this year's event which took place at Iglesia Church in Richmond, as in previous years, LUPHSA students were tasked with manning several booths such as maternal and reproductive health, BMI screening, dental hygiene, and physical activity. All of these were indicated areas of health needs in the assessment conducted in 2015.

Joined by two professors, many LUPHSA students came out to support this event. With the help of the church leadership of Iglesias Church, there were about 5 community members who attended. Though community members were mostly Spanish speakers, Victoria Ramos, LUPHSA President, assisted with interpretation at each booth.

We also received a staff member from Patient Protection and Affordable Care who was tasked with enrolling community members in health insurance. Attendees seemed pleased that we came to administer these services. Turnout was low, however, as the fair was organized on a day that coincided with a local festival event. Nonetheless, LUPHSA students were happy to see that our efforts were not in vain because we contributed positively to the Mixteco community in helping them to lead healthier lives.

Samaritan's Purse Relief Efforts on Barbuda

by Shelby Todd

In September of 2017, Hurricane Irma made its way across the Caribbean, leaving a path of destruction. One island that was devastated by this storm was the island of Barbuda. Approximately 90 percent of the buildings on the island were destroyed, forcing the nearly 1700 residents to evacuate to the sister island of Antigua.¹ Luckily, the larger island of Antigua was spared by the storm and was able to serve as a refuge for the Barbuda people. Samaritan's Purse, a Christian international relief organization, was the first to respond. Within 48 hours of the storm, Samaritan's Purse sent resources and personnel to the island to begin the recovery process. Within a few weeks, the organization was able to distribute over 1200 tarps to serve as temporary roofs.² Samaritan's Purse WASH (Water, Sanitation & Hygiene) employees worked quickly to set up a water treatment unit that can provide clean water to the residents. The unit is a massive water tank that dispenses water that has been treated by a machine that desalinates the ocean water, producing fresh, drinkable water. Samaritan's Purse workers have distributed jerry cans for residents to use to collect water and take back to their homes. The organization has now established a country office in Antigua and Barbuda in order to assist the country with long-term reconstruction. Over the next few months, Samaritan's Purse volunteers and employees will help build transitional shelters for every family that needs a place to stay as they rebuild their homes.² Samaritan's Purse works alongside governments in order to determine how to most effectively respond to the needs of a community. They seek to equip communities to rebuild after disasters without redesigning the systems and infrastructure that are already in place. It will be years before the recovery process is over; however, the residents are optimistic and know that with the support of organizations like Samaritan's Purse, they can successfully return their island to its former beauty and infrastructure.

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2. Prince Charles sees Samaritan's Purse work in Barbuda. Samaritan's Purse.
<https://www.samaritanpurse.org/article/prince-charles-sees-samaritans-purse-work-in-barbuda/>. Accessed April 18, 2018.



“Blue tarp from Samaritan’s Purse now covers many of the homes on Barbuda”

Photo provided by Samaritan’s Purse



“The giant water tank provides clean water to residents of Barbuda”

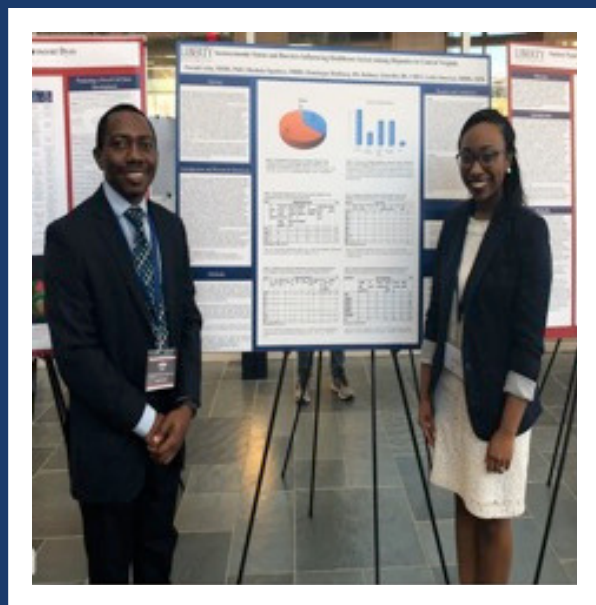
Photo by Hannah Langham

Socioeconomic Status and Barriers Influencing Healthcare Access Among Hispanics in Central Virginia

by Martha Mabiala



Evidence-based research studies have revealed that low-income and minority populations often endure poor health-related quality of life. Health disparities are a major problem among minority populations within the United States, especially among Hispanics. The Hispanic population has become the most populous ethnic minority group within the United States. Its population was estimated to be 56 million in 2014 and is projected to increase to 76 million people by 2050. As the Hispanic population rises in the United States, it is necessary to address the inaccessible healthcare and health disparities that Hispanics encounter.

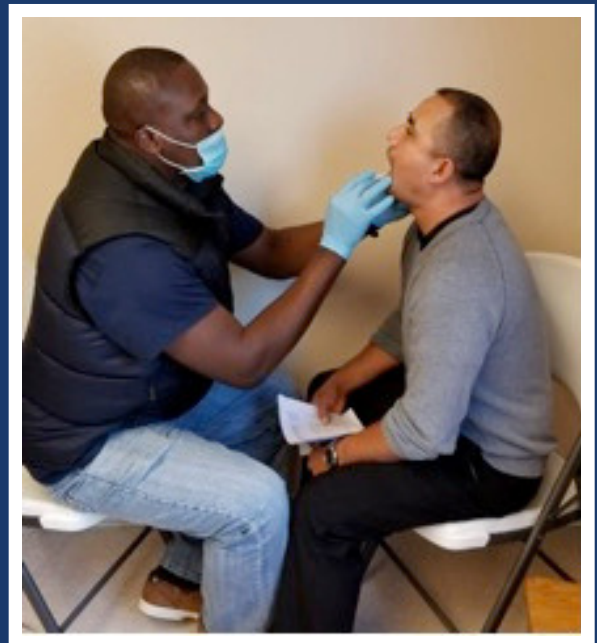


Due to the significant need for attainable healthcare access among Hispanics living in the Central Virginia area, a study was conducted to increase knowledge about the socioeconomic barriers and health status of Hispanics in the area to enable the development of culturally-sensitive interventions with relevant stakeholders. With faculty mentor, Dr. Attin, MPH students Dominique Richburg, Olushola Ogunleye, Bethany Schaeffer, and Leslie Omoruyi partnered with ENROLL Virginia and the Virginia Legal Aid Society to perform research on this issue.

A cross-sectional study design was utilized to collect data through 300 self-administered questionnaires. Only Hispanics of low-socioeconomic status, over the age of 17, living in the Central Virginia area (Lynchburg City, Campbell County, and Bedford County) were included in the study. Although only 100 questionnaires were returned, the necessary statistical power was still attained for data analysis. Data analysis was completed using SPSS software.

It was reported by 20 respondents that the cost of healthcare was the most significant factor that served as a barrier to healthcare access. Lack of medical insurance and the poor perception of healthcare's necessity tied as the second most reported barrier. In addition, it was found that racial discrimination and long waiting lists served as the two most common problems encountered at healthcare facilities for Hispanics. The results suggest that multiple factors interact significantly to affect healthcare-seeking behavior and access among the Hispanic population.

In the future, healthcare access can be improved through more in-depth research and by applying the findings through new programs. Future research should utilize a modified questionnaire that will assess healthcare status, healthcare access, and socioeconomic barriers rather than focusing on other barriers that do not address healthcare access in its entirety. Social determinants and factors identified by the research can be targeted through a series of interventions to improve healthcare access and usage among Hispanics. ENROLL Virginia has already compiled the data retrieved from this study into a preliminary analysis for the organization to better address the healthcare barriers for this underserved population in the future.



No Flu Liberty Campaign

**Olushola Ogunleye, MBBS; Wiley Phillips, BS;
Martha Mabiala, BA; Daniel Ekoh, DDS; Ehizogie Adeghe, DDS;
Esse Noudegbessi, BS; Roshan Purohit, MBBS; Sonia Gwancza, BS**

Influenza is a respiratory illness caused by influenza virus. It causes mild to severe illness that is highly contagious and can result in hospitalization or death. Influenza accounts for about 300,000 to 600,000 respiratory deaths worldwide every year.^{1,2} Tens of thousands die from flu-related complications.^{1,3} Seasonal influenza is an acute infection and is transmitted from person to person easily. In the U.S., the flu virus is present year-round, but it is commonly seen during the fall and winter season.^{4,5} A pandemic of influenza occurs when a virus to which humans have no immunity emerges and spreads widely infecting a huge proportion of the world.

The risk of contracting the influenza virus is higher with university students as they live in common living spaces.^{1,6} Vaccination is an important public health intervention for prevention of influenza.^{5,6} Influenza viruses undergo antigenic changes continuously enabling the virus to bypass the host's immunity thereby increasing the possibility of people getting infected multiple times throughout their lives.^{6,7,8} In order to match the circulating viral strains, vaccines targeting seasonal influenza viruses must be reformulated yearly to match circulating viral strains.⁷ Several reasons for low vaccine uptake among college students include low perceived susceptibility and perceived severity of the disease, poor attitudes/knowledge toward the flu vaccine as well as its safety and efficacy, busy schedules, and competing priorities.^{7,8}

Methods

The incidence of influenza-like illness at Liberty University (LU) was high in the 2016-2017 academic year. Free flu shots were offered monthly during the 2017-2018 academic year as the major flu prevention method. A cross-sectional descriptive study was carried out on LU's campus and data were collected after receiving approval from Liberty University's IRB. To get an estimate of the influenza vaccination rates among undergraduate students during the Fall 2017 semester, as well as their attitudes toward influenza vaccination, the researchers collaborated with a professor from the Department of Public and Community Health to develop a survey involving 174 students.

Subsequently, records on vaccination coverage and diagnosis of influenza-like illnesses for Spring 2017, Fall 2017, and Spring 2018 semesters were obtained from the Student Health Center. The data were organized and analyzed using Microsoft Excel 2016. Charts were generated to show trends. Also, estimates of the rates of influenza-like illness and influenza vaccination, as well as correlations between flu vaccination rates and influenza-like illness were determined.

Results

Vaccination coverage for Spring 2017 was not recorded for data analysis. There were 766 influenza-like illnesses reported in Spring 2017, with 222 (22.9%) confirmed as influenza. The majority (615, which is about 80.3%) were reported in February 2017, with 198 of these (32.2%) positive for influenza. Data showed 141 reported influenza-like illnesses for Fall 2017, with a strong negative correlation between vaccine coverage and influenza-like illness ($r = -0.82$). The survey of students' attitude toward and practice of influenza vaccination reported that 31 (17.8%) out of 174 residential undergraduate students received the flu shot from on-campus clinics or elsewhere, and 26 (18.8%) out of 143 who had not yet been vaccinated intended to get vaccinated. Almost two-thirds (117, 67.2%) out of 174 did not intend to get vaccinated. The vaccination coverage on LU campus for Fall 2017 was extremely short of the Healthy People 2020 objective of 80%.^{9,10,11}

Also, increased promotion of flu vaccine through campus-wide use of the #NoFluLU hashtag was done during the Fall 2017 semester. At the end of the semester, only 176 students had received flu vaccine from on-campus clinics. About two-thirds (67%) of nursing students received the flu vaccine because it was required for clinical postings. As at March 30, 2018, for Spring 2018, 619 influenza-like illnesses had been reported. Of these, 360 (58.2%) were reported in February 2018, and 116 (18.7%) tested positive for influenza.

Christian worldview

- 1 Thessalonians 5:23 teaches that our beings are made up of three parts – spirit, soul and body
 - Each part synergistically relates to the other two
 - We are to use our mind (brain) to maintain our bodies
- Christ's ministry emphasized healing
 - Jesus often went out of His way to reach the ill and the oppressed
 - As Christians, we are called to imitate Christ

Conclusion

A strong negative correlation implies increased vaccination coverage on campus has great potential to reduce influenza rates. Improvement was shown in the trend of influenza-like illnesses reported for Spring 2018 compared to influenza-like illnesses reported for Spring 2017. Several misconceptions about the vaccine included doubts about its safety and efficacy, and low perceived susceptibility to influenza, with religious beliefs also playing a major role.^{10,11}

Further research is needed to better understand factors that influence college students' health decisions, including theoretical constructs of health behavior like the health behavior theory, the body temple theory. Also, more awareness is needed; thus, education on flu, flu prevention, and the flu vaccine is encouraged. Furthermore, key messages on flu prevention and vaccination need to be incorporated into college readiness information.

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Hurricanes *making* Headlines



Harvey. Irma. Maria. Just to name a few of the most recent hurricanes. Quite devastatingly, this hurricane season has been one of the most intense, impacting not only the areas where the storms hit, but also the people connected with those who lived there.

Harvey, a Category 4 storm, hit Texas on August 25, 2017. There was extensive damage to communities and infrastructure, and flooding that displaced thousands of people. Not long after, on September 7, 2017, Irma reached Puerto Rico and the Virgin Islands as a Category 5 hurricane, then traveled to south Florida. Irma tore mercilessly through the Caribbean, leaving islands like the island of Barbuda desolate and empty for the first time in 300 years.

These areas have experienced disruptions in electricity, communication, sanitation, safety, disease control, and access to safe water and food. The CDC (Centers for Disease Control and Prevention) has sent federal medical stations and pharmacy supplies to the impacted areas and has even deployed members of the U.S Public Health Service Commissioned Corps to provide technical support.

Anyone can access the CDC website and read about the potential public health concerns during a hurricane disaster. Some of these include risk of injury, exposure to mold and household chemicals, and the exacerbation of existing mental health conditions. However, it's one thing to read about the disaster and several statistics, and another to hear from people who were able to witness the devastation first-hand.

Two of our very own LUPHSA members, Shelby Todd (Senior Public Health Major with a Global Studies Minor), and Nicole Solvig (Senior Public Health Major) traveled to Barbuda to work alongside Samaritans Purse in providing relief and assistance to the impacted island. The LUPHSA journal reached out to them and they gladly agreed to send in a paragraph describing what they observed while abroad in regard to public health concerns.

Shelby Todd's Response:

"I traveled with LU Send Now to the island of Barbuda to work alongside Samaritan's Purse in providing relief to the island. Hurricane Irma had completely devastated Barbuda. All 1700 Barbudan people had to be evacuated from the island. Every day we would walk through the empty streets, surrounded by piles of debris. It looked like no one had been on the island in years. Some places that used to be homes were mere piles of concrete. Livestock roamed free. There was standing water in most buildings which attracted thousands of mosquitoes. Mold had begun to grow on every surface imaginable. This island, once a thriving community, was completely deserted. The Barbudan people remained joyful and resilient despite all the destruction they had experienced. I have a hope that they will rebuild and come out of this tragedy stronger and more united than ever."



Nicole Solvig's Response:

"I had the honor of serving in a support role on a DART (Disaster Assistance Response Team) with Samaritan's Purse following Hurricane Irma that ripped through the Caribbean in September. Our team of 8 flew into Antigua on the DC-8 which was full of supplies for the surrounding islands and several personal who were responding to the disaster. Barbuda is a small island with a community of about 1,800 people. The category 5 hurricane tore across the island leaving no building untouched.

The devastation was surreal. Every resident was forced to evacuate the island, leaving behind what was left of all they owned. The goal of Samaritans Purse is to get people back home and begin the rebuild of the island. However, there was no clean or running water or electricity available. This presented a huge Public Health problem compounded by the swarms of mosquitoes, animal feces, standing water, and debris everywhere. To this day, Samaritan's Purse is the only organization providing a source of clean water on Barbuda. Alongside the DART, we were tasked to clean out buildings that would become distribution points on the island for clean water, non-food items, tarps, and food.

The work seemed insignificant, but to know that because of our presence, the people had hope that they could rebuild. Almost every homeowner we met had lost most of their belongings, yet they had a defiant hope to return and rebuild. Our team constantly remarked on the joy and sense of unity the Barbudans had. We will continue to pray for those who have lost their entire way of life and ask that God be glorified through this disaster.

The devastation that violently ripped through the Caribbean is difficult to imagine. Hearing from first-hand witnesses, even if only about the small island of Barbuda, gives the issue more relatability. For those who may not have been directly affected, it's encouraging to know that there are organizations like the Samaritans purse that will provide the tools needed to assist our brothers and sisters around the world.



An interesting thing to note is the consistent hold on hope, that both Nicole and Shelby detected among the Barbadian people. They described how the Barbadians held tightly to the hope of rebuilding again, to the hope that help is on the way, and the hope that God has a plan for the destruction and will be glorified in the end. Although the hurricane disasters have made headlines in this season, and heightened the disruption of the public's health, God can make beauty out of the ashes. There is hope for those who have been hurt by the hurricanes.

2018 LUPHSA Gala

The annual gala organized by the Liberty University Public Health Student Association (LUPHSA) was an initiative of the club to celebrate achievements and a year full of hard work. The gala gave the opportunity to create deeper connections with peers, create lasting memories, and celebrate the graduating class. The academic year 2017-2018 hosted the 2nd annual gala on March 30th, 2018. This year theme was “Fiesta Mundial,” which, while based off of Spanish royalty, still embraced the international diversity of the club members. The Alumni Ballroom in the Montview Student Union was transformed for the occasion.

Libertada, a singing missionary student group at Liberty, graced the stage with several performances in Spanish. A special performance of Laura Gil Olmos added to the event. After a word from the LUPHSA President Victoria Ramos and a few musical performances, the buffet catered by Sodexo and was opened. Following a time of mingling, awards were given to professors and students to celebrate their achievement throughout the academic year. Dr. Oswald Attin was awarded Faculty of the Year and MPH student Dominique Richburg was awarded Student of Year.

The night closed with a moment of prayer for all the students graduating and lots of group pictures! Overall, the event was a beautiful reminder that we are all involved in making LUPHSA a successful tool in God’s hands.





2018 LUPHSA Leadership Inauguration



It is such a delight to see that the new officers were already very involved in LUPHSA and in the field of public health field. We are confident that the new team will fulfill their duties with great diligence. The previous leadership team built a solid foundation for our current team and any teams to come. We expect nothing but success from our team, because we know that “The LORD makes firm the steps of the one who delights in him; though he may stumble, he will not fall, for the LORD upholds him with his hand.” Psalm 37:23-24.

In LUPHSA, we see students who are eager to learn and work hard for the purpose of gaining more experience in changing the world through public health. We wish nothing but the best for the incoming team. We cover them with our prayers, encouragement, and support for the journey ahead. It will not always be easy, but with a clear vision, courage, and with the grace and mercy of the Lord, we can do beyond our imagination and expectations.

“I, Kristy Gonzalez, promise to fulfill my role as the President of LUPHSA to the best of my ability, so help me God.” These were the words uttered by our current president at the Inauguration Ceremony that took place on April 11th, at the beginning of our monthly LUPHSA meeting. Dr. Attin graced us with his presence to swear the president in. The president, Kristy Gonzalez, in turn swore the rest of the committee members with the same oath.



2018-2019

A Message from our 2018-2019 President

At the end of the 2017-2018 school year, I was asked to become the President of the Liberty University Public Health Student Association (LUPHSA) for the 2018-2019 school year. Not having previous leadership experience, I entered into this role with some hesitation and self-doubt regarding my capabilities to fill these shoes. But as I reflect back on this school year, I can truly say that it's been an honor to serve the Lord and others in my role as President of LUPHSA. I will never forget the lessons I have learned and the growth that I have attained as a result of this incredible association.

During my time as President, I also had the privilege to serve alongside 11 incredible leadership members without whom all of our events and planning would not have been possible. I hope that you will see just a glimpse of their dedication and efforts reflected on the pages of this journal. I also want to extend my sincerest appreciation to our club members who went above and beyond to learn more about the field of public health through heartfelt servanthood and involvement. Additionally, I wish to acknowledge our club supervisor, Dr. Oswald Attin, for his continued support and guidance over our club collaborations, as well as our compassionate professors who never cease to extend grace and help in support of the mission of our association.

Thank you all! I pray that you all would continue to rely on God's principles of love, kindness, and gentleness to guide you in every new year to come.

"Therefore, as God's chosen people, holy and dearly loved, clothe yourselves with compassion, kindness, humility, gentleness, and patience."

Colossians 3:12

Sincerely,

Kristy Stearns
BS, MPH

2018-2019 LUPHSA Leadership

Kristy Gonzalez,
President

Shelby Todd,
Vice President

Victoria Wilson,
Secretary

Wiley Phillips,
Treasurer
Fall 2018

Rachel Tippet,
Treasurer
Spring 2019

Keirsten Baker,
Event Coordinator
Fall 2018

Lynzi Glasscock,
Event Coordinator
Spring 2019

Christina Martino
Communications Officer

Joshua Bartell
Communications Officer
Summer 2018

Paul Okojie,
Journal Coordinator

Danielle Cloos,
Global Health
Graduate Representative

Caesar Toland,
Nutrition
Graduate Representative

Vincent Valeriano,
Epidemiology
Graduate Representative

Katelyn Espenship,
Health Promotion
Graduate Representative
Spring 2019

Megan Marshal,
Undergraduate
Representative
Fall 2018

Peter Tor,
Undergraduate
Representative
Fall 2018

Response to Hurricane Florence: the Oak Island trip

by Paul West Okojie



There is something special about public health. As a discipline, public health deals with the impact of events on the health of an entire population. It creates solutions that take people's culture, beliefs, and motivations into consideration. Response to emergencies such as infectious disease outbreaks and disasters are vital public health functions.

When the news of Hurricane Florence broke, I was apprehensive for communities that would be potentially affected. North Carolina was greatly impacted by Hurricane Florence. The extent of damage from the disaster was evident from the massive flooding, fallen trees, broken sewage system, loss of millions of chickens and disruption of power supply to hundreds of homes – not to mention the unfortunate loss of lives. Despite the resilience that the United States has built over time from several hurricanes, the impact of such disasters lingers for a long time, especially for people who suffer the loss of property or loved ones.

I personally received the news of the Oak Island trip with excitement. It was my first trip outside the city of Lynchburg but at the same time, the trip gave me an opportunity to serve storm-ravaged community in my own little way. We camped at Oak Island Presbyterian Church for four days of the trip. The church's pastor, Dr. Walter Taylor and his congregation planned for our meals and supplies.

Dr. Taylor assisted the team in identifying vulnerable people, especially the elderly on the island community who needed the team's help. There was a need to help clear debris and assist elderly residents to clean their compound and provide psychological support. I recall two widows who were recently bereaved of their husbands whom we helped to clean their yard and clear debris from the storm. This we did gladly, offering words of comfort and praying with the victims of Hurricane Florence. Our response took us to Boiling Spring Lake where an artificial lake was completely damaged, and major roads washed away. The flooding from Hurricane Florence resulted in a huge increase in mosquitoes. The team set up mosquito traps to be evaluated in some of the classes. The mosquitoes were so bad the county set up a special aerial spray plan. The area was sprayed a little less than two days before we arrived.

Hurricane Florence reminds all the public health community of the need to continuously build strong emergency preparedness and response mechanisms. Victims of natural disasters may know little or nothing about triaging or supply chain management, but what they long for is love, passion and sacrifice from responders. The trip made me learn that the most important tool that public health practitioners need to be successful in responding to emergencies is our humanity.



Public health students with the leader of the Liberty University Hurricane Florence response team, Dr. Richard Lane, after cleaning the compound of a widow who was impacted by the storm.

Mixteco Health Outreach

by Rachel Tippet

On October 13, 2018, LUPHSA and Biomedical Sciences students went to Richmond, VA to offer a Health Outreach event to the indigenous Mixteco community. With space graciously provided by Iglesia Bautista Conexión, LUPHSA provided comprehensive health screenings measuring BMI, blood pressure, cholesterol, blood glucose, bone density, and vision, and dental screenings. LUPHSA students also created a nutrition workshop for both children and adults, showcasing traditional Hispanic food with healthier replacements. After screening, attendees had the opportunity to be evaluated by licensed medical doctors and referred to appropriate services in the area.



Kristy Stearns and Victorian Wilson also received Institutional Review Board (IRB) approval to collect height and weight on children aged 5-17 years of Hispanic origin, given parental consent, for the purposes of better understanding health problems in the Mixteco and Hispanic community. This outreach event would not have been possible without the support of church and community members who served as translators at check in, each of the education stations, and during the medical evaluations. During the three-hour event, we were able to screen 25 to 30 church and community members and educate them on local resources at their disposal. For LUPHSA members who were new to the organization in the fall, this was the first large event they participated in, offering valuable time for collaboration and fellowship.

Club Sports Nutrition Workshop

by Lynzi Glasscock

LUPHSA members Caesar Toland, Francina Desse, and Lynzi Glasscock conducted a nutrition workshop for Liberty Club Sports athletes on February 7, 2019. The workshop included a presentation on nutrition, exercise, and brain health and a cooking demonstration of cacao and banana overnight oats.



Save a Child's Heart Fundraiser

by Lynzi Glasscock



LUPHSA hosted a screening of *Hoping for Rainbows*, a documentary that follows the stories of 3 kids from Zambia who travelled to Israel to receive open heart surgery from Save a Child's Heart. This screening on February 15, 2019 was a fundraiser for Save a Child's Heart, a non-profit based in Israel that provides life-saving surgeries to children from developing countries with congenital and rheumatic heart diseases at no cost to them or their families. Save a Child's Heart also provides pediatric cardiac training to doctors and nurses around the world. All proceeds of the fundraiser went directly to this incredible organization.

Skin Health Awareness

by Lynzi Glasscock

On March 5, 2019, LUPHSA participated in National Healthy Skin Month on Liberty's campus in partnership with Live Health Liberty. LUPHSA members conducted DermaScans for students and alerted them to areas of their faces that were dry, oily, or had sun damage. They then educated participants on the importance of using sun screen while on Spring Break the following week.



2019 LUPHSA Gala

by Rachel Tippet

The third annual LUPHSA Gala was held on Friday, March 22, 2019. Attended by more than 80 students, professors, and family members, Our Big Fat Greek Gala was a special time to celebrate the accomplishments of the department and honor both students and faculty members moving on to bigger and better things. Held in the Montview South Ballroom, this event was a collaboration of the LUPHSA executive team, the LUPHSA Events Committee, Sodexo, and Halfway to Lima, a Liberty University husband and wife duo that provided live music for the event.

Guests entered to a red carpet and photo booth, complete with LUPHSA balloons and classic photo booth props. Vincent Valeriano and Christina Martino served as em-ceeds for the evening, serving the occasional pun and directing guests towards dinner after LUPHSA President Kristy Stearns made opening remarks. A delicious Greek-inspired dinner was served by Sodexo, accompanied by acoustic music provided by Halfway to Lima. After dinner, members of the LUPHSA executive team presented faculty and LUPHSA leadership awards, followed by student-voted awards honoring Christian character, leadership, and research, to name a few.

LUPHSA leadership also took time to honor our three distinguished faculty members who retired in May 2019: Dr. Richard Lane, Dr. James Florence, and Dr. Annette Florence. Before the gala, students were encouraged to record a short video segment of thanks and encouragement, all of which were compiled into a brief presentation for each professor. These videos were shown after Dr. Oswald Attin shared memories of each professor. The gala concluded with a prayer over those graduating, offered by both Dr. Richard Lane and Dr. James Florence, and a group picture!





La Iglesia de las Americas

Health Fair

by Lynzi Glasscock

On Saturday, April 6, 2019, LUPHSA partnered with La Iglesia de las Americas to host a health fair for families in Lynchburg and the surrounding communities. At the outdoor health fair, LUPHSA members conducted vision, dental, hypertension, diabetes, obesity, skin cancer, and bone density screenings. Each station provided participants with education on how to prevent or mitigate the effects of these chronic diseases. Participants also received nutrition education and had the opportunity to observe a cooking demonstration.



LUPHSA coordinated this event with Dr. Oswald Attin's HLTH 554: Medical Terminology en Español class, which translated materials, flyers, and signage for the health fair. Their early, targeted marketing and partnership with the Free Clinic of Central Virginia resulted in a great turn out for the event.

The church served not only as a host but also as a source of knowledgeable translators. Church volunteers assisted with translation of education and instructions and helped with the flow of the event. LUPHSA members, volunteers from the church, and Dr. Attin's class worked together to impact the health of Hispanic families in our community. It was a beautiful picture of community members being involved in the work of public health.

2019 Lynchburg Community Care Collaborative

by Megan Revis

The Lynchburg Community Care Collaborative (LCCC), held at Salvation Army on April 13th, was very successful this year, serving 190 individuals in the community. The Collaborative allowed Liberty University medical, nursing, and Master of Public Health (MPH) students to work together, alongside community professionals, organizations, and University of Lynchburg physician assistant students, to provide care to underserved members in the Lynchburg community. LCCC provided medical check-ups, dental exams, vision evaluations, hand and feet washings, pharmaceutical assistance, and different community connections, such as the DMV, Centra, and WIC (Women, Infants, and Children Nutrition Program) services.



Some MPH students, known as lead navigators, were responsible for moving the clients from station to station. These students helped explain the process and ensure that the client received care from all of the applicable stations. Other MPH students educated clients while they were moving through the different stations on the benefits of having a balanced diet, the importance of getting enough sleep, how to practice oral hygiene, the risk factors and symptoms of diabetes, and other general hygiene practices. The hope in offering education covering these varying topics was to provide preventative care. Lastly, MPH students were also responsible for collecting data in order to give feedback on the successes of the day, as well as areas that have need for improvement.

Overall, the LCCC allowed the community to pull together to help members of the community. Underserved individuals were able to receive health care they may not have had access to otherwise, as well as come in contact with the Gospel in the multiple interactions they had with brothers and sisters throughout the day.



The Research Committee

by Julia Jackson

The research committee returned this spring semester after being gone for a while. It was reinstated so that the students would have the opportunity to get involved with research, an important part of public health. In its return, LUPHSA members on this committee worked on one project that focused on the correlation between shower frequency and common colds. The hypothesis was that those who took shorter and colder showers would get sick less often than those who took longer, hot showers. The members conducted the research by passing out 178 paper surveys to students at Liberty University. The data was unfortunately found to be inconclusive and will be continued in the upcoming school year. A Spearman's Rank-Order Correlation Test was used (see Table 1) but found the data to be inconclusive because there were several areas that had low numbers. For the test to work, each box would have to have at least a five responses to be significant. Unfortunately, we had five boxes that were too low to use, which resulted in the data being inconclusive. We would like to continue doing the research in the next academic year to make the research conclusive.

Table 1: Spearman's Rank-Order Correlation Test for Temperature and Cold Frequency, Liberty University, March-April 2019

	Cold Frequency (Number of Colds per Year)				
Shower Temperature	0 to 1	2 to 3	4 to 5	More than 5	Total
Cold	2	0	0	0	2
Warm	19	35	13	1	68
Hot	30	53	15	5	103
Total	51	88	28	6	173



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