

Texas Public Health Journal

A quarterly publication of the
Texas Public Health Association (TPHA)



Volume 69, Issue 2 Spring 2017

In This Issue

President's Message	2
Commissioner's Comments	
Zika across Texas: An Update for the Front Lines	3
Poison Control News	
Copper Sulfate: A Potential Hazard at School	4
2017 National Public Health Week Special Focused Journal Section	
Efforts toward Healthier Texas Communities	5
What the Texas Public Health Journal Can Do for You	13
Original Public Health Research	
Texas Legislator Survey: Lessons Learned from Interviewing State Politicians about Obesity Policies	14
Physical Activity Associated with Age, Sex, and Seasonality among Park Users in an Unincorporated Community along the Texas-Mexico Border	24
Book Review	
Against Empathy: The Case for Rational Compassion by Paul Bloom, c. 2016. Does feeling for others make for bad public health policy?	29
GIS Day, Texas Department of State Health Services, Austin, Texas, November 16, 2016	30
Get Involved in TPHA: Join a Committee	31

Please visit the Journal page of our website at <http://www.texaspha.org>
for author information and instructions on submitting to our journal.

Texas Public Health Association
PO Box 201540, Austin, Texas 78720-1540 phone (512) 336-2520 fax (512) 336-0533
Email: txpha@aol.com

"The articles published in the Texas Public Health Journal do not necessarily reflect the official policy or opinions of the Texas Public Health Association. Publication of an advertisement is not to be considered an endorsement or approval by the Texas Public Health Association of the product or service involved."

Subscriptions: Texas Public Health Journal, PO Box 201540, Austin, Texas 78720-1540. Rates are \$75 per year. Subscriptions are included with memberships. Membership application and fees accessible at www.texaspha.org. Please visit the journal page for guidelines on submitting to the Texas Public Health Journal.

Editor

Catherine Cooksley, DrPH, ARGC

Managing Editor

Terri S. Pali

Editorial Board

Kaye Reynolds, DrPH - Co-chair

Carol Galeener, PhD - Co-chair

Jean Brender, RN, PhD

Amol Karmarker, PhD

Kimberly Fulda, DrPH

Mathias B. Forrester, BS

Natalie Archer, MPH, PhD

TPHA Executive Board

Melissa Oden, DHED, LMSW-IPR, MPH, CHES,
President

Carol M. Davis, MSPH, CPH, President-Elect

Rachel Wiseman, MPH, 1st Vice President

Witold Migala, PhD, 2nd Vice President

Cindy Kilborn, MPH, M(ASCP), Immediate Past
President

Rita Espinoza, MPH (2019)

Maram Museitif, MPH, CPH, CCRP (2019)

Bobby Schmidt, MEd (2018)

Kaye Reynolds, DrPH (2018)

Gloria McNeil, RN, BSN, MEd (2017)

Sandra Strickland, DrPH, RN (2017)

Elizabeth Barney Cuevas (2017)

TPHA Governing Council

Melissa Oden, DHED, LMSW-IPR, MPH, CHES,
President

Carol M. Davis, MSPH, CPH, President-Elect

Rachel Wiseman, MPH, 1st Vice President

Witold Migala, PhD, 2nd Vice President

Cindy Kilborn, MPH, M(ASCP),
Immediate Past President

Rita Espinoza, MPH (2019)

Maram Museitif, MPH, CPH, CCRP (2019)

Bobby Schmidt, MEd (2018)

Kaye Reynolds, DrPH (2018)

Gloria McNeil, RN, BSN, MEd (2017)

Sandra Strickland, DrPH, RN (2017)

Elizabeth Barney Cuevas (2017)

Linda Kaufman, MSN, RN, APHN-BC (2019)

Lou Kreidler, RN, BSN (2019)

Lisette K. Osborne, RN-BC, MSN, CHEP (2019)

Sheronika Denson, DrPH, MS (2018)

Stephen L. Williams, MEd, MPA (2018)

Alexandra Garcia, PhD, RN, FAAN (2018)

Christine Arcari, PhD (2017)

Martha Culver, DNP, RN (2017)

Jennifer Smith, MSHP (2017)

Beverly Pritchett, Administration &
Management Section (2017)

Jennifer Severance, PhD - Aging & Public
Health Section (2017)

Teresito Ladrillo, Dental Health Section (2017)

Phani Veeranki, Epidemiology Section (2017)

Debra Flores, Health Education Section (2017)

Monica Hughes, Public Health Nursing
Section (2017)

Alisa Rich, PhD, Environmental and Consumer
Health Section (2017)

Yetunde (Nola) Akiwowo, Student Section
(2017)

Bobby Jones, DVM, MPH, DACVPM,
Parliamentarian

Catherine Cooksley, DrPH, ARGC
Representative

Journal Typesetting

Charissa Crump

* () term expires

President's Message

Melissa Oden, DHED, LMSW-IPR, MPH, CHES



and the gavel will have been passed on to Carol Davis. This year has gone by rapidly, and yet, I am pleased with how many things we have accomplished together during my year as President.

For starters, Carol Davis and Rachel Wiseman lead a long and valiant effort to change some of our association's by-laws that needed some attention. Those changes were successfully made and approved, and I want to thank them for their efforts in this regard. Additionally, Rachel led a charge to help our members understand more clearly what opportunities for service are available to them, and that effort resulted in Job Action Sheets, which are now called Volunteer Position Descriptions. Hopefully by the time this article is published, we will be well on our way to making those available on our new web site so that every member of TPHA will know where to seek out volunteer opportunities, thus making it that much easier to decide how you can best serve your association.

Speaking of our web site, our fabulous Executive Director, Terri Pali, did an AMAZING job getting our new web site up and running properly. She spent untold hours in training, learning how the new platform works and migrating all of the information from our old site to the new one with as few hiccups as possible. I personally can't thank her enough for leading this effort and making sure that it went as smoothly as possible.

Additionally, I was able to do some unique things that hopefully made you feel a little more connected to your association. A few weeks after we returned home from the Galveston conference, I began a 5-month Postcard Campaign, where every member on our roster at that time received a handwritten post card from me. I also created "Melissa's Monthly Membership" videos. In each of those videos, I brought you news and other important information about what

is going on in the association that month. I think those videos were the most fun thing I did all year! It was a joy to be able to visit with you for 4 minutes each month, connecting you to the activities in the association.

I also created an ad hoc committee dedicated to deciding the best way for TPHA to respond to the important public health issue of societal violence. The committee was comprised of Dr. Witold Migala (2nd VP), Past President Bobby Schmidt, Governing Council member Elizabeth Cuevas, Governing Council member Dr. Alisa Rich, Member Maryam Tabrizi, and Member Kwynn Gonzalez-Pons. Together, we hashed out a definition of societal violence that we felt represented a public health view, and we are in the next steps of determining how TPHA can be most effective in helping our members around the state address this issue in their own communities.

Last but not least, we received another accreditation grant to help Local Health Authorities prepare for accrediting, and we continued to build a highly successful partnership with the American Planning Association through the Plan4Health grant. That grant is ending as of this writing, and we are moving to the "Planners4Health" program that will build on and grow the success of Plan4Health in our great state.

None of these things would have been accomplished without the work of our officers and members. Words cannot express the thanks I feel in my heart for all of you who helped make my Presidential year successful. Be assured that in my year as Immediate Past President that I will continue the work that I have begun this year. I will be continuing to ask our members to get involved in these projects because these projects are so much bigger than me. I may be spearheading them, but there is no way they could be sustainable without the work of our members. To that end, I want to encourage you to stay involved, not only with TPHA, but also with the public health issues in your local area. I don't want you to see TPHA as a separate entity that has nothing to do with your local public health work. Please see TPHA as a resource and a support for the work that you do. If you haven't gotten involved yet or you are brand new to TPHA, I urge you to not wait to get involved! WE NEED YOU. We are only as successful as the strength of our members.

Finally, a word of thanks to Dr. Witold Migala, Carol Davis, Rachel Wiseman, and Cindy Kilbourn, for your unending support this year. I could not have asked for a finer group of officers to work with. I also want to thank Dr. Catherine Cooksley, Dr. Bobby Jones, Dr. Bob Galvan, Bobby Schmidt, Tom Hatfield, Charla Edwards, and Bob Drummond, for always encouraging me and mentoring me in my TPHA journey. I especially want to thank Dr. Catherine Cooksley for encouraging me to run for 2nd Vice President 5 years ago and for believing in me when I didn't believe in myself that I could do that. Thank you, Catherine.

To Terri Pali, who I call our Rockstar Executive Director, you have always been amazing to work with, but this year has been extraordinary. You are the most patient, kind, and fun Executive Director I have ever worked with. Thank you for making this such a fun year.

Keep working and keep fighting for public health, TPHA members! Keep the faith and never, never give up. Our future collective health is depending on you.



Commissioner's Comments

Zika across Texas: An Update for the Front Lines

Dr. John Hellerstedt

Texas Department of State Health Services



One year later, I can say that I am proud of our efforts to battle this emerging threat. However, the fight is far from over.

Thanks to our surveillance infrastructure of local public health departments and the Austin DSHS Laboratory, as of February 2017, we've been able to confirm more than 300 Zika cases from 49 Texas counties. Most of these individuals were infected while traveling outside of Texas.

Most individuals infected with the Zika virus won't have symptoms or will only have mild symptoms that may include fever, itchy rash, joint pain and eye redness. The reason we continue to be so concerned about Zika is because research has confirmed the early suspicions that women infected during pregnancy can pass the virus to their babies in utero, causing severe birth defects in some cases, including microcephaly, and other poor birth outcomes.

Texas has added more than 170 individuals to the CDC's US Zika Pregnancy Registry to track and follow pregnancies that may be impacted by Zika. By July of last year, the first baby in Texas was born with Zika-related microcephaly to a mother who contracted Zika abroad, and in August we sadly experienced our first infant death due to Zika.

On Nov. 28, DSHS and the Cameron County Health and Human Services Department announced a case of local mosquito-borne Zika virus infection in southern Texas. Over the next few weeks, we identified five additional local cases and worked with CDC to advise pregnant women who live in or travel to Brownsville to get tested and warn them and their partners to be aware of local Zika virus transmission and strictly follow precautions.

Those primary prevention steps remain the same: eliminate mosquito breeding sites and avoid mosquito bites. I probably don't have to remind you that our Texas mosquitoes are active most months of the year, especially in the southern parts of the state. Although there was a reduction in Zika cases during the winter months, the continuing reports of travel related cases confirm that we must be vigilant at all times. Integrated pest management in the community and home can stop or greatly reduce mosquito breeding. This involves removing trash and debris that trap water, frequently cleaning and changing water in containers, covering or screening containers, and using pesticides. To prevent bites, wear an Environmental Protection Agency

approved insect repellent, cover up with long-sleeved shirts and long pants, use air conditioning, ensure window screens are intact, and limit outdoor activities during peak mosquito times.

The good news is that if we are successful in our prevention efforts we will also reduce our risk for other dangerous mosquito-borne illness in our state such as West Nile virus, Chikungunya and Dengue. We've learned a great deal from the outbreak of the Zika virus on the American continents but much more research is required before we will have a vaccine that can stop the terrible consequences of Zika virus infection during pregnancy.

In the meantime, health practitioners must ensure that the public receives accurate information and help pregnant women protect themselves. Although the Zika virus is transmitted to people primarily through the bite of an infected mosquito, it can also spread by sexual contact. Pregnant women need prenatal counseling to prevent sexual transmission of the Zika virus, which requires consistently and correctly using barriers against infection during sex or abstaining from sex for the duration of the pregnancy.

Health care providers should regularly check the CDC updates so they have the latest recommendations on how and when to screen and test pregnant women. This will allow us to test, evaluate, and follow-up infants with possible congenital Zika virus infection. As always, health care providers caring for pregnant women should communicate appropriate medical information with the health care professional who will be caring for the newborn. It is also very important to continue encouraging and supporting breastfeeding of infants, regardless of Zika virus testing results. No cases of Zika virus infection associated with breastfeeding have been reported.

The likelihood is that Zika is here to stay. We must focus on our long term response and implement health practices that will protect the most vulnerable members of our population. This requires the ongoing cooperation of the public, health care providers and the public health community. Our struggle is just beginning, but I am confident that Texas has the strength to overcome this new challenge.

I encourage you to visit www.TexasZika.org for the latest Zika news and information, including updated cases numbers and guidelines for health care practitioners. I also recommend tracking the national and international impact of Zika through the CDC website: www.cdc.gov/zika. For more information about mosquito control visit www.epa.gov/mosquitocontrol.



Copper Sulfate: A Potential Hazard at School

Mathias B. Forrester

Texas Department of State Health Services, Austin, Texas
mathias.forrester@dshs.state.tx.us

Children may be exposed to a wide variety of potentially hazardous substances at school.¹⁻³ During 2000-2015, 38,728 exposures occurring at school were reported to the Texas Poison Center Network. One potentially hazardous substance is copper sulfate. Copper salts (copper sulfate, copper oxide, copper chloride, copper nitrate, copper cyanide, copper acetate) are used as pesticides and algacides and in various industrial processes.⁴ Copper sulfate may be used in schools in order to teach students about the formation of salt crystals.⁵

Depending on its concentration, copper sulfate ingestion may result in rapid onset of nausea and vomiting with characteristic blue-green emesis, abdominal pain, diarrhea, and possibly gastrointestinal bleeding. Hepatic and renal damage may occur.^{4,5} Copper sulfate also may be corrosive to the skin and eyes, causing irritation, burning pain, and redness.⁵ Death has been reported after ingestion of copper sulfate.⁵

Of 348 copper sulfate exposures reported to the Texas Poison Center Network during 2000-2016, 121 (34.8%) occurred at school and involved patients age <20 years. In comparison, of 156 copper sulfate exposures reported to the Danish poison center during 2007-2015, 66.7% occurred in school.⁵ The rest of this discussion will focus on the 118 school exposures. The school exposures were seasonal, with 115 (95.0%) reported during September-May, when schools are generally in session.

The mean patient age was 15 years (range 9-19 years); 60 (49.6%) of the patients were age 15-16 years. Males comprised 67 (55.4%) of the patients. The route of the exposure (an exposure may involve more than one route) was ingestion (n=54, 44.6%), dermal contact (n=35, 28.9%), eye contact (n=25, 20.7%), and inhalation (n=13, 10.7%). In contrast, in the Danish study, the most common routes of exposure were ocular and ingestion followed by inhalation and dermal.⁵ The majority (n=101, 83.5%) of the exposures reported to Texas poison centers were unintentional while 20 (16.5%) were intentional or malicious intent.

Most (n=83, 68.6%) of the patients were managed on site (outside of a healthcare facility), 12 (9.9%) were already at or en route to a healthcare facility when the poison center was contacted, 8 (6.6%) were referred to a healthcare facility by the poison center, and 18 (14.9%) were managed at an unspecified other location. The majority (n=112, 92.6%) did not have a serious outcome, and no deaths were reported.

One or more specific adverse effects were reported in 70 (57.9%) of the exposures, and those that were reported tended to be ocular, dermal, and gastrointestinal in nature. The most frequently reported clinical effects were ocular irritation or

pain (n=19, 15.7%), red eye (n=13, 10.7%), dermal irritation or pain (n=12, 9.9%), nausea (n=9, 7.4%), erythema or flushed (n=7, 5.8%), and vomiting (n=6, 5.0%). These adverse effects were consistent with those reported in the literature.^{4,5}

The most commonly reported treatments were dilution, irrigation, or wash (n=100, 82.6%); fresh air (n=9, 7.4%); and food or snack (n=9, 7.4%). The literature reports that ingestion of copper sulfate may be managed by decontamination via gastric lavage. Shock caused by gastroenteritis may be treated by administration of IV fluids and pressor medications.⁴

In summary, over a third of the total copper sulfate exposures managed by Texas poison centers are reported from school and involve children. Although the data from the Texas Poison Center Network suggest that most school exposures are not likely to be serious and can be managed outside of a health-care facility, copper sulfate has the potential of causing serious adverse effects. If a child should be inadvertently exposed to copper sulfate at school, it is advisable to contact the Texas Poison Center Network at 1-800-222-1222.

REFERENCES

1. Bush S, Chassee T, Judge B. 2010. School evacuations in the United States due to hazardous chemical incidents. *Clin Toxicol* (Phila) 48:615.
2. Forrester MB. 2006. Patterns of exposures at school among children age 6-19 years reported to Texas poison centers, 1998-2002. *J Toxicol Environ Health A* 69:263-268.
3. Alarcon WA, Calvert GM, Blondell JM, Mehler LN, Sievert J, Propeck M, Tibbetts DS, Becker A, Lackovic M, Soileau SB, Das R, Beckman J, Male DP, Thomsen CL, Stanbury M. 2005. Acute illnesses associated with pesticide exposure at schools. *JAMA* 294:455-465.
4. Buchwald A. 2007. Copper. In Olson KR, ed. *Poisoning & Drug Overdose*, Fifth Edition. McGraw Hill Companies, Inc, New York, pp 174-176.
5. Pedersen EB, Hoegberg LC. 2016. Copper sulphate experiments: an unnecessary hazard at school. *Clin Toxicol* (Phila) 54:461.





2017 National Public Health Week Special Focused Journal Section: “Efforts toward Healthier Texas Communities”

Brought to our readers by the Texas Public Health Journal editorial board: Catherine D. Cooksley, DrPH, Editorial Board Chair and Editor; Terri Pali, TPHA Executive Director; Natalie Archer, PhD; Matt Forrester, BS; Kimberly Fulda, PhD; Carol Galeener, PhD; Amol Karmarker, PhD and Kaye Reynolds, DrPH
www.texaspha.org

The first week in April of each year is set aside by the American Public Health Association to pay tribute to the many hard-working, talented public health professionals who make our lives healthier every day! The Texas Public Health Association’s editorial board wishes to offer our thanks to your dedication in this special journal section.

This year, instead of simply including announcements of the activities your agencies have planned, as we have done in previous years, we wanted to highlight efforts taking place in your communities toward attaining the goal for making this the “Healthiest Nation in One Generation”. These are ongoing projects or programs found all year in communities across Texas.

We sent out a “Call for Articles” with a few examples of the efforts we hoped to highlight. As we expected, we have a truly innovative and dedicated group of public health professionals at work across our state. The following celebratory and tribute section is compiled from material submitted to us as it was received and have only had editorial review and revision.

We begin our special NPHW tribute with an introduction by Dr. Eduardo Sanchez, a public health icon in our state and a dedicated Texas Public Health Association member for many years. Following this are summaries of efforts that will truly make you proud to be a Texan and to be a member of a public health association that cares so deeply about the health of Texans.

We realize not everyone saw our “Call” or could not make our deadline for inclusion in this year’s NPHW tribute. Please be reminded that there are plenty of other opportunities to publish your work in our journal all year long. Just visit the page on our website for all the information you need, <http://www.texaspha.org/page/Journal>.

Please be aware that many NPHW activities are taking place across Texas April 3-9, 2017. For example, Region 4/5 Programs will collaborate and compete office to office for the best and most creative public health informational/educational table displays. This year’s focus is “Healthy America”. Each clinic location will display chosen topics of health, well-being and safety. Featured topics from Community and Family Health will include nutrition, physical activity, ATV safety, suicide prevention, distracted driving, sex trafficking, safe sleep, hy-

perthermia and car seat safety. Communicable Disease will showcase Immunizations, Zika, Rabies, Tuberculosis, and HIV/STD information. Preparedness will provide the public with reportable diseases and how to report, foodborne safety and handwashing. Our Social Work department will proudly display their QIP (Quality Improvement Project) and social work service handouts. Their contact is Suzanne Fisher, BSN RN MPA-HCA Regional Nurse Supervisor, Suzanne.Fisher@dshs.texas.gov.

You are encouraged to contact your local health authority to see what is planned in your area. We know there are so many of you hard at work out there to make us all healthier. We thank you all!



Getting to the Healthiest Nation 2030: Public Health “Crashing” Traditional Healthcare Parties with Innovative Community Approaches

Eduardo Sanchez, MD
eduardo.sanchez@heart.org

The good news is that life expectancy in the United States (and Texas) increased significantly over the past 100 plus years – largely because of public health. The bad news is that we seem to have forgotten that public health is the “guy (or gal) that brought us” to the dance and has been the foundational basis for the progress that we have made in the clinical care realm.

Getting to the healthiest nation 2030 will take a recommitment to public health and a commitment to assuring that every individual has an adequately resourced public health system where they live and work and easy, affordable access to quality medical care, starting with primary clinical care.

While we are spending more and more each year nationally on a per capita basis on individual medical care, we are not even spending the same amount (in absolute or relative terms) on public health.

We have benefited as a nation from the work done and the lessons learned related to decreased smoking in the United States over the past six decades. The success, to date, in reducing smoking rates in the United States has been the result of a multimodal systems approach based on a strong science-driven evidence base. And let’s not forget that vaccines to prevent disease are public health delivered in clinical settings.

However, those of us who pursue the public health part of promoting health and preventing diseases are used to swimming upstream against a current, used to playing second fiddle in discussions and decisions related to the public’s health, and used to figuring out how to best use the limited resources we have.

Becoming the healthiest nation by 2030 is achievable. We, public health folk, must crash the parties and force ourselves to the tables of payors, health systems, and corporate America, big and small, national and local. Healthiest by 2030 aligns with economic competitiveness and aligns with best care (public health and clinical) and smartest spend (a data-driven approach to allocate resources across the health system continuum – public health, community health, primary care, specialty care, hospital care, long term care).

Using a clichéd term, we must be selectively disruptive to, not only, maintain health gains but to push for new gains always with health equity and optimal health for all as the vision and value proposition for a stronger public health infrastructure better integrated with clinical care systems to get to healthiest by 2030.



Patient Navigator Project

S. Kim Bush, MPA, CCHWI

UT Health Northeast

Sonja.Bush@uthct.edu

UT Health Northeast is a health science center with residency programs, Master degree programs, and a center for rural community health that provides health care to many communities in the surrounding Northeast Texas area. Healthcare settings include inpatient and outpatient as well as community-based. Additionally, UT Health Northeast has been a significant part of growth within this area. Patient care is the first priority with patients being treated as a part of the family, according to the mission, vision, and values of UT Health Northeast.

During 2007, the Texas Department of State Health Services (DSHS) undertook an East Texas community health needs assessment (ETCHNA) to document the scale of health issues in the region. This project is a response to that assessment along with a 2012 Regional Needs Assessment (initiated for the 1115 Waiver) targeting four identified Community Needs: 1) insufficient access to primary and specialty services; 2) insufficient access to mental/behavioral health care services; 3) high rates of chronic disease, including diabetes, heart disease, asthma, obesity, and cancer; and 4) high costs due to potentially preventable hospital admissions/readmissions.

The inauguration of the Patient Navigation program at UT Health Northeast occurred in 2013 providing navigation services to established patients, individuals utilizing inpatient services and the emergency department (ED) as well as surrounding Northeast Texas community members. The goals of this project are to improve patient adherence and disease self-management. The project defined four primary objectives to evaluate the program: 1) increase the number of patients enrolled into navigation services; 2) increase patient engagement through self-education programs; 3) decrease the number of individuals without a primary care physician (PCP); and 4) reduce inappropriate utilization of ED for ambulatory care sensitive conditions such as COPD, asthma, heart failure, hypertension, and diabetes. Teams consisting of Patient Services Coordinators (PSCs) and Community Health Work-

ers (CHWs) are placed throughout the institution into primary care and specialty clinics, the ED, Intensive Care Unit (ICU), and additional inpatient settings. Navigation services provided by the PSC/CHW teams include assisting patients in reducing barriers to care by improving health literacy and locating community resources to address social determinants of health. Staff were hired and trained during the Fall of 2013 and PSC/CHW teams were implemented into designated clinics during early 2014. Additionally, navigation services are offered through health education classes, sessions, and outreach events such as community health fairs and conferences. Outreach is facilitated by Community Health Workers teaching chronic disease self-management curriculum in local churches, public libraries, and community organizations. In addition, health education sessions, along with resource information and assistance with obtaining community resources, are held at a local non-profit organization for low-income and homeless populations. These classes are taught day or night as a convenience to the specific organization. All services are provided at no charge. Thus, due to the effectiveness of the program, a demand for services with additional community organizations has occurred. As a result, more than 1000 encounters within the community have been held providing health education regarding diabetes self-management, heart health, as well as assistance in obtaining community resources.

Locating opportunities to collaborate with other community organizations led this project to work closely with a network of multiple social service and non-profit agencies who work together to reduce social determinants of health. Being a part of the Health Care subcommittee provides an opportunity for the project's program manager to promote navigation services to community members who do not normally receive routine or preventive care and provide community awareness regarding health care resources. In addition, the project formed a new partnership to provide health insurance assistance through the Healthcare Marketplace for five surrounding counties. UT Health Northeast is a Certified Application Counselor (CAC) organization through the Healthcare Marketplace and joined the Community Partner Program through Your Texas Benefits to assist individuals with Medicaid programs.

Fiscal year 2015 resulted in 56 Primary Care Provider (PCP) appointments scheduled for individuals without a PCP, 368 unique patient encounters held in the community, 574 patients being enrolled into the program, and a reduction of 5.45% occurred among inappropriate utilization of ED visits for ambulatory care sensitive conditions. In comparison, fiscal year 2016 was also successful with an increase of 249 PCP appointments scheduled for individuals without a PCP, 529 unique patient encounters being held in the community, 2576 patients being enrolled into the program, and a reduction of 5.54% occurred among inappropriate utilization of ED visits for ambulatory care sensitive conditions.

PSC/CHW teams have been able to enhance the transfer of health information and reinforce medical recommendations from the point of hospital discharge and/or medical home visits to improve patient adherence and influence patient dis-

ease self-management among UT Health Northeast frequent ED users as a part of a preventable ED reduction program. Patients frequently comment on the valuable assistance they have received by PSC/CHW teams. Clinical leadership has also mentioned the valued role of PSC/CHW teams as a part of daily operations.

Reference:

Texas Department of State Health Services (DSHS). (2007). East Texas community health needs assessment (ETCHNA). Retrieved from <https://www.dshs.texas.gov/easttexas/reports.shtm>



Healthier Texas Communities through Agricultural Medicine Training

Amanda Wickman, MBA; Jeffrey Levin, MD, MSPH

The University of Texas Health Northeast

Amanda.Wickman@uthct.edu

What do farmers, ranchers, loggers, forestry workers and commercial fishermen have in common? They all work long hours in hazardous environments to provide food, fiber and timber products for their communities, the nation and the world. They are exposed to extreme temperatures and weather conditions, as well as, dangerous chemicals, heavy machinery and unpredictable livestock. Farms and ranches are also frequently located on the same property as the home, posing unique risks for families with children. According to the Bureau of Labor Statistics, U.S. workers in agriculture, fishing, and forestry (AFF) occupations are up to 33 times more likely to die on the job than workers in other industries.¹ Similarly, workers in AFF experienced a higher incidence rate of nonfatal occupational injuries than the all-industry average. It is widely believed that fatal and nonfatal injuries and illnesses within the agriculture, forestry, and fishing sector are underreported because the statistics do not capture incidents that occur on operations with fewer than 11 employees.

The Occupational Medicine Residency Program at The University of Texas Health Northeast (UT Health Northeast) recognized an opportunity to address this burden of injury and illness through agricultural medicine training. Agricultural medicine is a distinct field of study that includes “the anticipation, recognition, diagnosis, treatment, prevention, and community health aspects of health problems peculiar to agricultural populations.”² A NIOSH-funded Training Project Grant (TPG) was awarded to UT Health Northeast to support occupational medicine resident training with an emphasis on the occupational health needs of rural and agricultural workers. When the TPG was first awarded, occupational medicine residents at UT Health Northeast attended a 40 hour course offered by The University of Iowa. The agricultural medicine course in Iowa included a range of significant instructional topics in agricultural medicine important to a broad range of healthcare professionals. UT Health Northeast worked closely with faculty from The University of Iowa to adapt their established agricultural medicine curriculum to the southwest United States. Strategic partners from the Southwest Center

TPHA Journal

Volume 69, Issue 2

for Agricultural Health, Injury Prevention and Education; the Rural Osteopathic Medication Education (ROME) Program at The University of North Texas Health Science Center-College of Osteopathic Medicine; and the Texas Rural Health Association worked together to coordinate a regionally relevant agricultural medicine training series.

Texas agricultural medicine training has been held in Fort Worth since 2014. The first complete training series was split into two sessions and was held in conjunction with the Texas Rural Health Association (TRHA) Annual Conference in 2014 and 2015. In 2016, the training series started over. Due to the mobile nature of the TRHA Conference and the static nature of the agricultural medicine students, the trainings were relocated to The University of North Texas Health Science Center campus. The Texas training series covers sixteen topics, including Agricultural Skin Diseases, Musculoskeletal Diseases, Zoonotic Diseases, Respiratory Diseases, and Behavioral Health Issues to name a few. Content experts from Texas and Iowa prepared and delivered the interactive presentations. From 2014-2016, 98 unique participants attended the Texas agricultural medicine trainings. Sixty-one medical students and eight occupational medicine residents (TPG-funded) have gained exposure to health issues specific to workers and families from rural and agricultural communities in the southwest. In addition to the residents and students, thirty-seven individuals from diverse training backgrounds have attended the course. Those attendees included a pediatric cardiologist, several nurses, an extension specialist, Farm Bureau representative, professor of nursing, and an assistant professor of occupational health sciences. Planning is underway for the spring 2017 agricultural medicine training session.

Two important outcomes have resulted from this effort. The first outcome has been the extension of agricultural medicine training to the southwest that incorporates fundamental clinical and public health topics to the field, customized to the unique circumstances of agricultural production populations in the region. The second outcome has been the development of a training initiative that is both sustainable and can reach a sizeable target audience, by forming a collaboration of strategic partners with established networks of relevant stakeholders. The ROME program and occupational medicine residency at UT Health Northeast have new students/residents each year providing a sustainable pipeline of trainees for the course, at the very least for these groups which contribute significantly to the rural and occupational health care workforce respectively. Marketing to additional audiences has the potential to broaden and diversify the reach of rural and agricultural health-related messages. Through this customized agricultural medicine training series, UT Health Northeast and the ROME Program at The University of North Texas Health Science Center are working toward healthier Texas communities.

References:

1. Average of years 2011-2015. U.S. Bureau of Labor Statistics, Census of Fatal Occupational Injuries (CFOI) - Current and Revised Data <https://www.bls.gov/iif/oshcfoi1.htm#charts>.
2. Donham K, Thelin A. Agricultural medicine: Rural occu-

pational and environmental health for the health professions. Ames, Iowa: Blackwell Publishing; 2006.



Paying Tribute & Preventing Agricultural Tragedies

*Nykole Vance**, MS, CEP, CHES, Amanda Wickman, MBA
UT Health Northeast
nykole.vance@uthct.edu

Texas Ag Memorial Day was first envisioned by a farm family that experienced a tragedy while working in an agricultural environment. The Dineen family lost their 5 year old son when he was run over by a truck on the farm where they were baling hay. They sought to educate other families in order to avoid another unfortunate incident.

Texas Ag Memorial Day is more than just a ‘day’; it is an ongoing process to remember the people who left a lasting impression on the agricultural industry. The Texas Agriculture Memorial Day effort includes three main components: (1) an official day to recognize those who were killed or severely injured in agriculture or people who died of natural causes that were influential to agriculture; (2) an online registry; and (3) an interactive kiosk located in the Agricultural Museum in the state capitol.

Governor Gregg Abbott declared that November 21st is officially Texas Agriculture Memorial Day. Each year on this day, an event is held in Austin, Texas to formally recognize the people who were killed or injured in agriculture, along with others who devoted their lives to agriculture and died of other causes. The honorees or their representatives accept certificates from a state official and stories and images of those recognized are shared. Although, Texas Ag Memorial Day takes place just once a year, the online registry is always available to capture information about the life and death of impacted individuals. The registry serves not only as a memorial, but also as a rich source of information related to how people are injured on agricultural operations in Texas. The registry allows people who were touched by a tragedy to share their story, pay tribute to their loved ones, learn about other families who have experienced loss and provide insight into the prevention of future incidences. Information from the registry can also be used to guide agricultural safety and health research and outreach, like that performed by Texas AgriLife Extension and Southwest Center for Agricultural Health, Injury Prevention and Education (SW Ag Center). The kiosk in the Agricultural Museum will display a list of the registered victims, as well as, safety education and incident prevention information.

The inaugural Texas Ag Memorial Day was held on November 21, 2016. November 21st is a significant date to the founding farm family because it was their son’s birthday that passed away in the tragic agricultural incident. Texas Ag Commissioner, Sid Miller, welcomed and visited with the numerous honored families and friends during the ceremony. State Representative, John Wray, read the Governor’s proclamation and recognized 21 individuals who were inducted into the registry in 2016. There are three categories that an honoree can be nominated into:

- Memorial: those who have lost their life while engaged in agricultural-related pursuits such as working livestock, transporting agricultural goods or operating or in the vicinity of machinery
- Honor: those who were involved in a severely debilitating incident—loss of eyesight or limb(s), paralysis or deafness—while engaged in agricultural-related pursuits
- Memorial Service: those who lost their life in a non-agricultural incident but had an active role in an agricultural operation

Of the 21 individuals, nine were included in the Memorial category, one was included in the Honor category and eleven were included in the Memorial Service category. An exhibit case will be placed near the kiosk in the Agricultural Museum where family members can display memorabilia to pay tribute to their loved one(s). The local FFA members will maintain the display.

Strategic partners were engaged, including the governor’s office, Farm Bureau and the SW Ag Center, to make the Dineen’s vision become a reality. The governor’s office was influential in connecting the Dineen family to relevant organizations. Farm Bureau provided financial support to develop a state-wide registry and the SW Ag Center committed to maintaining the registry by accepting nominations, following up with contacts and ultimately deciding who would be included in the registry. Nominations for the registry can be made online via the Texas Agriculture Memorial Day Facebook page and at <https://goo.gl/forms/CrdSDoLGxJodgpLv1>.

Texas Agricultural Memorial Day is a worthwhile endeavor that could be expanded across the nation. The registry not only plays a pivotal role in helping the families of the victims heal, but it also serves as a valuable surveillance tool for agricultural occupational health and safety research and outreach. By sharing these tragic stories, others can become more aware of their work environment and take the necessary precautions to minimize hazards and avoid heartbreak.



Healthy Babies Coalition and the Women’s Health Workgroup of Prosper Waco

Jennifer McConaughy
jennitermc@wacotx.gov

The Waco-McLennan County Public Health District is dedicated to the health of our community. We align our efforts with community stakeholders to educate and incentivize healthy behaviors. While we are continually improving our involvement in our community’s health in all of our departments, we are very proud of several recent projects and their growth.

Our Healthy Babies Coalition and the Women’s Health Workgroup of Prosper Waco are partnering with a marketing firm to coordinate a strategic/marketing plan for our community and improve preventative health and health care for women in our community. This firm conducted stakeholder meetings with local community partners who work in women’s health or maternal and child health, as well as focus groups with women of childbearing age to get their feedback on the intervention components. With this research, we will strategize around the

most effective messaging to coordinate a “Birthday month” campaign to remind women to get their well woman exams annually during their birthday month.

Our health district is also partnering with stakeholders to combat obesity and chronic disease prevention in our community. Part of our initiative began when we were accepted to participate in the Healthiest Cities and Counties Challenge in 2016. We were one of 49 other communities competing in this two-year challenge to improve the health of our residents. Through our partnerships, we are encouraging our community to eat more fruits and vegetables. At the end of this challenge, we will submit data measuring how these initiatives have impacted our community, which stands to win a monetary award if our impact beat our competitors. We are educating our community on how to properly prepare healthy meals and how to prepare unique produce through public cooking demonstrations and cooking videos prepared by our Women, Infants and Children (W.I.C) program. We have found barriers in promoting healthy eating habits are linked to the lack of education, resources, and access to healthy foods. We have partnered with a local mobile produce van which distributes fresh produce throughout several designated zip codes and they are currently looking at expanding their locations to reach more residents.

The Waco-McLennan County Public Health District is very excited to introduce our Community Health Worker program. Community Health Worker programs throughout the country have seen a wide range of success in the communities they serve. The well-being of our residents does not begin and end with medical care as needed; it requires attention to all areas of that individual’s needs. We are in the process of hiring and training 12 community members from various zip codes to go out into the community and help residents get access to health and social services they need, including connecting them with a primary care physician and assisting with insurance barriers. Our community partners affirm that the Waco-McLennan County Public Health District plays a crucial role in laying the foundation for good health and improved longevity, by working to immunize people against disease; identifying and controlling environmental health hazards and infectious disease; improving the health of mothers and children; and promoting healthy behaviors in areas like tobacco use, physical activity, and nutrition. Public health activities, such as those noted above, were responsible for 25 of the 30 years of average lifespan gained during the 20th Century. Public health leaders are grateful for the contributions of people in all sectors of society who are helping to build and sustain a safe and healthy community by addressing the social determinants of health, such as education and economic development. Our hope is that this week we can raise awareness around helping our families, friends, neighbors, co-workers and leaders better understand the value of public health and adopt preventive lifestyle habits.



Healthier Ingleside

Debra Handley, RN

GJM Elementary, School Nurse, Ingleside ISD
debra.handley@inglesideisd.org

I am honored to tell you about the wonderful staff at Gilbert J.
TPHA Journal *Volume 69, Issue 2*

Mircovich Elementary School in Ingleside, Texas in making our Efforts toward Healthier Texas Communities in our little community on the Coastal Bend area of the Texas Coast.

We implemented GJM Staff Wellness at GJM Elementary and are trying to improve our health, one day at a time. We believe that not only is a healthy school staff important for all employees’ physical and emotional well-being, we serve as a strong role model for all of our students and our community. Our elementary campus serves approximately 510 children in grades 2-4.

Our current GJM Staff Wellness program includes a Walking Group that walks every Tuesday after school in addition to encouraging walking EVERY day of the week. We also have a Yoga class that meets in the gym on Thursday afternoons.

We have a Biggest Loser Contest that we will complete in March, just in time for Spring Break! We encourage healthy weight loss through tips for healthy eating, exercise and encourage water intake. In the first week of our efforts, the staff lost an impressive 61.5 pounds!

We plan to participate in the monthly Bridge Walk in nearby Corpus Christi. This event includes walking across our beautiful Harbor Bridge followed by events like Zumba and vendors promoting healthy lifestyles.

The GJM Staff Wellness is planning on participation in our GJM Health and Wellness Fair that will take place on our campus, after school on April 6. We have planned the fair after school and into the evening, at a time to promote family and community involvement. We hope to include many of our Ingleside families and members of our business community in our effort toward a Healthier Ingleside, Texas!

The members of the GJM Staff Wellness and myself are ever striding toward making Ingleside a Healthier Texas Community.



The Health Science Dental Project

Dr. Sherdeana Owens¹, Marian Tajchman, RDH, MS², Brenda Buckner MSN, RN, CCRN³

¹Health Science Coordinator, College of Nursing and Health Science, Texas A&M University Corpus Christi

²Assistant Professor of Dental Hygiene, Del Mar College;

³Clinical Assistant Professor, College of Nursing and Health Sciences, Texas A&M University Corpus Christi.

Sherdeana.Owens@tamucc.edu

Program Overview

Improving oral health is a leading population health goal. Oral health is one of the Healthy People 2020 Leading Health Indicators. From data provided by the 2009-2012 National Health and Nutrition Examination /Survey, approximately 14% of children in the 3-5 age range, who live in poverty, have untreated dental caries. The Federal Interagency Forum on Child and Family Statistics reports significant disparities in access to dental care for children 2 to 4 years of age. The Health Science Dental Project targets this audience by providing oral health education at the preschool level. The Project began in 2012 following a 2011 research study.

The environment and family condition of a child has a long-term impact on health. Children in lower socioeconomic groups often have higher rates of dental disease, less access to dental care and less family emphasis on oral health. Outreach and referral programs are an important tool in helping families to understand the importance of obtaining early dental care for children. Children served by The Health Science Dental Project belong to low-income families in the Corpus Christi area. A majority of the children, parents and caregivers are from the Birth-To-Five Headstart Program which serves low-income households. The others are from local non-profit daycare centers which also serve low-SES families. Currently, approximately 300 children are served annually.

In the state of Texas, Day Care registration does not include the requirement for a dental examination. A physical exam is necessary but dental is not addressed. Because of this, The Health Science Dental Project emphasizes to parents of preschool children the importance of both routine dental care and the selection of a family dentist or dental home.

Innovation

The Health Science Dental Project provides oral health and hygiene instruction and education to low-income children, the daycare staff, and the parents. The innovative characteristic of the program is one-on-one communication with parents and caregivers. By utilizing the daycare setting, volunteers have direct access to parents when they come to pick up the children at the end of the day. Parents are able to receive dental education materials, see the visual exam results of the child(ren), and ask direct questions of the volunteers. Additionally, a listing of area dental providers who accept Medicaid and CHIP is available. Caregivers can request in-service training from Dr. Owens in addition to the briefing they receive during the Dental Project session. To date, in-service has been provided to 300 Head Start staff members.

Staffing

Volunteer staff is drawn from the Master of Business and Master of Public Administration Programs, the undergraduate Health Science Program, the undergraduate Nursing Program, and the pre-professional Biomedical Science Program at Texas A&M University Corpus Christi. Additionally, students from the Del Mar College Dental Hygiene program are also part of our project. Each volunteer team has at least one bilingual English-Spanish speaker.

Services

Children are given hands-on instruction with tooth brushing. The volunteers engage the children in learning a dental song, brushing the teeth of a dental friendly stuffed animal, undergoing a visual dental exam, and using a disposable mouth mirror to view disclosing solution. Beginning with the 2016-17 school year, dental varnish application has been provided free of charge. Each child receives an at-home kit containing a brush, paste, 2-minute timer, and mouth mirror. Additionally, a dental activity and coloring book and a brushing calendar are given.

Parental education information includes brochures provided

by the ADA and the TxOHC (Texas Oral Health Coalition) on the care and function of primary teeth. Parents are made aware of the child's dental status and results of the visual oral exam.

Resources

Specific support has been provided by Midwest Dental Supply, Colgate, Oral Health America, La Costa Dental, and Texas Oral Health Coalition.

Acknowledgements

Abiodun Subair, MBBS, MPA, MPH; Mohammad Haris, MBBA, MPA; Christopher Nguyen, BSMS; Yudelkys Leonard, BSMS, Mary Leyendecker, BSMS; Roslyn Evans, BSMS.



Building a Healthier Community to Live, Work and Play

William Carter¹, Joanna Patterson²

¹Nutrition/Chronic Disease Lead Program Coordinator,

²Chronic Disease Prevention Program Manager
william.carter@wichitafallstx.gov

Since 1995, National Public Health Week (NPHW) has served as an opportunity to recognize the efforts of dedicated public health professionals serving on the front lines in a seemingly never ending war to promote health, protect the public, and prevent illness across the country. The Wichita Falls-Wichita County Public Health District (WFWCPHD) has proudly served the State of Texas in that capacity and more directly, the citizens of Wichita County, for over 30 years as a Health District and nearly 70 years as a Health Department before that. Throughout its over 100-year history, the WFWCPHD has tackled numerous health issues and has transformed and adapted to meet the needs of the populous. As we embark on our quest to become the healthiest nation in one generation, the WFWCPHD is committed to doing its part to change the culture and improve the health of the citizens of Wichita County in an effort assure healthier Texas communities.

Moving the needle in the direction of a healthier community takes community effort as well as a targeted and focused approach based on relevant and timely data. The Health Coalition of Wichita County, established in 2014, provides that oversight and shared community responsibility as emphasized by their vision to 'ensure a healthier community with an excellent quality of life, healthy people, and a culture that supports and encourages health and wellbeing'. The coalition created a Community Health Improvement Plan (CHIP) setting goals and strategies based on the results of community assessments to help guide our efforts to create a healthier community. Highlights of these efforts to improve health target all demographics from birth to 101.

WFWCPHD launched a healthy habits initiative called 5-2-1-0=8 in an effort to prevent and reduce the growing obesity epidemic. 5-2-1-0=8 is an acronym that represents a simple daily guide to healthy lifestyles: 5 or more fruits and vegetables, 2 or less hours of screen time, 1 or more hours of physical activity, 0 sugary beverages and 8 or more hours of sleep. WFWCPHD has collaborated with Midwestern State University Nursing

and Kinesiology Departments, North Texas Boys and Girls Clubs, Wichita Falls ISD, Electra ISD, City View ISD, Iowa Park ISD, and Burkburnett ISD, to bring the 5-2-1-0=8 program into the classrooms and afterschool programs influencing over 7,500 students annually. Although this initiative targets school-age students, it has expanded to include preschoolers and worksites.

Biking has become a major sport in Wichita Falls. Annually the city hosts the Hotter n' Hell bicycle race, the largest of its kind, that attracts around 15,000 riders from all across the country. The City of Wichita Falls has also built a 19 mile walking/biking trail system with 6 more miles planned supporting the growing desire for active transportation options in the community. To help support these efforts, WFWCPHD collaborates with the City of Wichita Falls Traffic Department to host an annual Circle Trail Tour event to promote and educate the community on the growing trail system. The Circle Trail Tour provides over 10 rest stops along a 14-mile route and is entirely free to the public. The tour draws approximately 100 participants annually. Additionally, a Bike Safety presentation is provided in schools by the WFWCPHD and Traffic Department to promote safe biking and walking routes to schools as well as its health benefits. The program reaches approximately 5 schools and over 2,000 students annually.

WFWCPHD was one of nine organizations to receive funding for the Tobacco Prevention and Control Coalition (TPCC). TPCC comprises 45 adults representing 14 sectors of the community and is the only one of its kind within 100-mile radius. TPCC educates the public on the dangers of tobacco use to all ages. The coalition played a key role in easing the implementation of two of the state's strongest comprehensive smoke free ordinances in Wichita County protecting over 90% of residents. They also offer Freshstart tobacco cessation classes both on and off-site and graduate approximately 60 participants annually. Additionally, TPCC oversees the Youth Tobacco Prevention and Control Coalition (YTPCC), which comprises 15 youth representing 3 school districts. YTPCC has participated in various anti-smoking events such as Tobacco Free Kid's Day, Red Ribbon Week, and flash mobs affecting over 10,000 county residents. Because of their work, the YTPCC was recently recognized at the State capitol for Advocacy Day by the Tobacco 21 lobby team. To date, TPCC has trained 564 youth mentors in the Teens Against Tobacco Use (TATU) program and have conducted 150 presentations to over 3,401 students at summer camps and elementary schools across the county.

Recognizing the need for healthier food options, WFWCPHD implemented the healthy restaurant recognition program, Por Vida! in 2016. Por Vida! uses the latest Dietary Guidelines for America standards to identify the healthiest meal options at participating restaurants. Approved recipes are evaluated by a Registered Dietitian and reviewed every 6-months to ensure continued compliance. Currently there are 22 restaurants and supermarkets participating in the Por Vida! program.

In 2015, the WFWCPHD was awarded the Community Diabetes Education Program (CDEP) grant, which offers the Diabetes Empowerment Education Program (DEEP) and the Diabetes Prevention Program (DPP) free of charge to the com-

munity. The WFWCPHD's DEEP recently received National Accreditation through the American Association of Diabetes Educators (AADE) and is one of only six such programs in a 100-mile radius. CDEP works to improve community clinical linkages among pharmacies, clinics and community partners in addition to providing education classes in all four cities in the county. Over 100 participants have successfully completed the program.

These are only a few of the great programs offered through the WFWCPHD helping to promote a healthier community for generations to come. With continued support from our community partners and the passion of a few great men and women, we will continue to work towards making our community a healthier place to live, work and play.



UT Health Northeast Center for Rural Community Health: Working Together to Improve Healthcare

Kate Philley Starnes, JD, MEd, Carlton Allen, MS, CHW, CHES, Paula R. Brandon, RN, MSN, FACHE

Northeast Texas Center for Rural Community Health
kate.starnes@uthct.edu

The University of Texas Health Science Center at Tyler, also known as UT Health Northeast, is the only academic medical center in Northeast Texas. UT Health Northeast strives daily to live out its mission of serving Northeast Texas and beyond through excellent patient care and community health, comprehensive education and innovative research. In 2013 as part of the Texas 1115 Healthcare Transformation Waiver, UT Health Northeast created the Northeast Texas Center for Rural Community Health (The Center). The Institution felt strongly that while clinical and hospital based care remained critical, there was much work to be done outside the walls of UT Health Northeast. The Center represents UT Health Northeast's commitment to positively impact the health of those living in the communities served, and acknowledgement of the need to bring health services to the community. Currently, there are more than 25 projects implemented and/or directed by The Center. Below is a brief overview of five projects that have an emphasis on outreach and making communities healthier.

Dental Project: Poor oral health often leads to significant pain, but can also directly impact a person's overall health.¹ Texas continues to lag behind other states in dental care and recently ranked 45th in overall oral health.² Northeast Texas, specifically, has a huge need for dental education and services. UT Health Northeast focused on this need and implemented a dental program in October 2013. The project has three driving goals: 1) increase the dental hygiene and assisting workforce; 2) increase dental training to medical providers and staff; and 3) increase access to preventive dental services. UT Health Northeast's greatest partner in this endeavor is Tyler Junior College and its department of Dental Studies. While many activities occur through this partnership, one in particular focuses on providing preventive dental care to elementary children at school. Dental caries are one of the most prevalent childhood diseases and negatively impact school attendance and perfor-

mance.³ Since the fall of 2015, more than 700 children have received school-based dental education and preventive services as part of this project.

Breath of Life Mobile Pediatric Asthma Clinic: According to the Texas 2014 Asthma Burden Report⁴, an estimated 9.1% of children in Texas have asthma. The highest prevalence rates for the state are in Northeast Texas, which is over 14%.⁴ Environmental triggers such as higher than average smoking rates, pollution and air impact from the high pollen and mold exposures in this area, contribute to these high rates. Due to the rural geography of the region, many children do not have access to primary care or the specialty care often needed to self-manage this disease. This lack of access leads to an increase in emergency department visits, hospitalizations and missed school days due to asthma related symptoms. Realizing this lack of access, UT Health Northeast deploys a mobile pediatric asthma clinic that travels to schools to help diagnose and treat asthma. The mobile team focuses on educating the patient to assist with self-management. Since October 2013, the mobile clinic has served more than 1500 patients and partnered with 26 school districts in 9 counties.

Nurse-Family Partnership Program® (NFP): In response to the alarming statistics in the 2016 Texas Healthy Babies Report⁵, UT Health Northeast committed resources to reduce the infant mortality rates in Northeast Texas. In March 2016, discussion began with The Department of Family and Protective Services and the Nurse-Family Partnership® National Service Organization to establish a NFP Program for Smith, Cherokee and Anderson Counties in Texas. The NFP is an evidenced-based community health program specifically focused on first time mothers who voluntarily enroll, meet low-income criteria at intake and are 28 weeks or less gestational age. The services provided by the NFP are designed to provide support and build self-efficacy with three primary goals: 1) Improving pregnancy outcomes; 2) improving child health and development; 3) and improving parental life-course by helping parents develop a vision for their future. "At its core, this program is designed to improve outcomes for children and families who face the greatest risk for abuse and neglect and a host of other problems that place too many kids far behind on the road of life."⁶ The mothers and children who are enrolled in NFP are followed for a period of two years. Currently, UT Health Northeast has three full-time Baccalaureate degreed Registered Nurse (RN) visitors and a Nursing Supervisor, RN, as well as a Program Manager. At full capacity, there will be a total of four RN home visitors, with each home visitor's caseload capacity at 25. Currently the program has an enrollment of 20, with a waiting list of 35.

Colon Cancer Screening Awareness Project: Both in Texas and in the United States, colorectal cancer (CRC) is the third most commonly diagnosed cancer in men and women and the second leading cause of cancer deaths overall.⁷ In Texas, CRC mortality and morbidity is highest in the eastern part of the state.⁷ UT Health Northeast took action on this topic and implemented social marketing to increase awareness and improve screening participation among individuals who are not up-to-date on CRC screening. The effort targets minority and rural populations from a seven county region of East Texas. A

team of health education coordinators travels throughout the counties attending health fairs and outreach events providing education on the importance of CRC screenings. More than 2500 individuals have received education through this effort and the forward expectation is that primary care providers will be proactive in referral and follow-up for CRC screening for their patients, and that this will lead to an increase in the number of screenings performed as well as secondary prevention and treatment procedures.

Community Health Worker Training Program: Community Health Workers (CHWs) provide an excellent complement to traditional provider/patient care. CHWs represent the community and the individuals served, and as such, establish a trusting relationship with their patients. UT Health Northeast partnered with Area Health Education Center (AHEC) East Northeast Region to train CHWs and certify through the Texas Department of State Health Services (DSHS). These trainings occur at UT Health Northeast, local community organizations and Tyler Junior College through an Academic Certificate. To date, 114 CHWs have been certified through this program. UT Health Northeast employs CHWs, many of whom provide diabetes self-management and heart health classes at local churches, libraries and community centers. More than 1000 educational community encounters have occurred that focus on healthy lifestyles and managing chronic diseases.

These projects merely provide a glimpse of the community work taking place through The Center. The Center remains committed to its community, and continues to search for funding to implement and support programs such as these that positively impact the health of Northeast Texans.

References:

1. Sheiham, Aubrey. (2005). Oral health, general health and quality of life. *Bulletin of the World Health Organization*, 83(9), 644. <https://dx.doi.org/10.1590/S0042-96862005000900004>
2. Bernardo, Richie. 2017's States with the Best & Worst Dental Health Feb 1, 2017 <https://wallethub.com/edu/states-with-best-worst-dental-health/31498/#main-findings> accessed 2.15.17.
3. Jackson, S.L., Vann Jr, W.F., Kitch, J.B., Pahel, B.T., & Lee, J.Y. (2011). Impact of Poor Oral Health on Children's School Attendance and Performance. *American Journal Of Public Health*, 101(10), 1900-1906.
4. Wu EW. 2014 Texas Asthma Burden Report. Austin, TX: Texas Department of State Health Services, 2014.
5. Kormondy, M. and Archer, N. 2016 Healthy Texas Babies Data Book. Austin, TX: Division for Family and Community Health Services, Texas Department of State Health Services, 2016. <https://www.dshs.texas.gov/healthytexasbabies/data.aspx>
6. Congressman Dave Reichert (R-WA), Chairman of the Subcommittee on Human Resources. Subcommittee on Human Resources of the U.S. House of Representatives Committee on Ways and Means. Washington, DC. April 2, 2014.
7. Risser, D. R., Mokry, B., Bowcock, C., Miller, E. A., Williams, M. A., Magid, R., & Garcia, R. (2010, September). Colorectal Cancer in Texas, 2010. In Cancer Prevention Research Institute of Texas. Retrieved from http://www.cprit.state.tx.us/images/uploads/colorectal_cancer_in_texas_tr_2010_low.pdf

A Note from the TPHA Section Leaders!

There are many opportunities to get involved in your section. Please contact any of the following leaders at txpha@aol.com Attention: [name of section leader], to find out how. Not a member of a section yet? Contact the person in the area you are most interested in.

Don't forget to attend the section business meetings at the Annual Education Conference!



Beverly Pritchett, Administration & Management Section (2017)
Jennifer Severance, PhD - Aging & Public Health Section (2017)
Teresita Ladrillo, Oral Health Section (2017)
Phani Veeranki, Epidemiology Section (2017)
Debra Flores, Health Education Section (2017)
Monica Hughes, Public Health Nursing Section (2017)
Alisa Rich, PhD, Environmental and Consumer Health Section (2017)
Yetunde (Nola) Akiwowo, Student Section (2017)

Texas Public Health Journal Advertise with us! Publish with us!

Our readers include TPHA members and several subscribers including university and college libraries. Your advertisements and publications reach hundreds of businesses and professionals with public health interests.

Advertise with us!

Competitive journal and website advertising rates from \$60 to \$1200

Publish with us!

- Public health practice commentaries,
 - Public health related book or software reviews,
 - Historical public health information,
 - Original public health research,*
 - Original public health practice program development.*
- *will be peer-reviewed by field specific public health professionals

Other ways you can raise your group's visibility in the public health community:

- Sponsoring and co-editing a *Focused* or *Supplemental Journal Issue*,
- Letting TPHA Co-sponsor and advertise your next public health-related conference,
- Posting job opportunities,
- Sponsoring a link on our website .

Get more information at <http://www.texaspha.org/page/Journal>
or contact us at txpha@aol.com

Texas Legislator Survey: Lessons Learned from Interviewing State Politicians about Obesity Policies

Donna Nichols, MEd, CHES¹; Diane Dowdy, PhD²; Heather Atteberry, MPH¹; Tiffni Menendez, MPH¹; Deanna M. Hoelscher, PhD, RD, LD¹

¹Michael & Susan Dell Center for Healthy Living at The University of Texas School of Public Health, Austin Regional Campus, Austin, TX

²Department of Health Promotion and Community Health Sciences at Texas A&M School of Public Health, College Station, TX

Donna.C.Nichols@uth.tmc.edu

Abstract

The primary focus of the 2013 Texas Health Perception Survey was to assess the knowledge, attitudes, and perceptions about obesity prevention and control measures of legislators from the 83rd Texas legislative session. The purpose of this manuscript is to present insights gained in surveying and interviewing Texas politicians. Initial steps in conducting the survey included formation of an Advisory Committee to guide the process, development of a survey instrument, and organizing a list of legislators and appropriate staff. Hard copy and online versions of the survey were developed. Administration of the survey required initial and follow-up visits and contact via email, phone, and in person. Lessons learned included methods to work effectively with partners as well as techniques to survey and interview legislators and their aides. Policy research work gives researchers, practitioners, and advocates opportunities to tailor future communications, refine and advance a childhood obesity policy agenda, and galvanize existing partnerships.

INTRODUCTION

Although recent obesity prevention efforts have focused on using policy, environment, and systems-level changes for promotion of health-enhancing lifestyles,¹ relatively few studies have focused on the health and wellness perceptions and knowledge of state legislative bodies;²⁻⁶ even fewer studies have detailed how this work is accomplished and essential lessons learned along the way.⁷ Dodson et al. analyzed data from 75 state-level legislators about their work on public health-related policies,⁴ while Robbins et al. conducted 48 qualitative interviews with local and state policymakers in New York about childhood obesity prevention policies.⁵ Anderson et al. surveyed New Hampshire municipalities about potential policies and assets associated with obesity prevention.⁶ Another survey of state legislators related to obesity prevention policies was conducted in Kansas in 2011 with a 27% response rate.⁷ Although a few studies have detailed information about how to survey state legislators,⁸⁻¹⁰ none has focused on best practices for conducting obesity-related policy survey research.

Data about health perceptions of their state legislators are important to public health advocates at all levels because this information can help them to develop, refine, and implement a childhood obesity policy agenda. In addition, practitioners and advocates alike are interested in knowing how best to gather, interpret, and communicate data received from state

policymaker surveys about childhood obesity. The 2013 Texas Health Perception Survey was conducted to determine state legislators' views on obesity, nutrition, and physical activity as well as their views on potential legislative mandates.¹¹ The purpose of this manuscript is to share the lessons learned from the 2013 Texas Health Perception Survey and to detail the critical elements associated with the developmental and implementation phases of this type of policy research work.¹¹

In describing the Texas Legislature, it has been said that “*As the twenty-first century unfolds, the (Texas) Legislature remains a curious combination of old-style politics, nineteenth century institutional design, and the realities of a state with 22 million people, many of whom live in or near some of the largest urban areas in the country.*”¹² The Texas Legislature meets every other year, making it one of four state legislative bodies that meet biennially. The other three states are Montana, Nevada, and North Dakota, all of which have smaller, more homogeneous populations.¹³ During the 83rd regular Texas Legislature in 2013, there were 5,868 bills filed; of those, a total of 1,437 were passed, making it one of the most productive legislative sessions in recent memory.¹⁴ The 2013 legislative session was also one of the most contentious, with special sessions called to finish out legislation on proposed abortion bills and other high-profile funding issues. Special sessions do happen but are usually regarded as a rarity in the Texas legislative process; however, the three sequential special sessions of 2013 were exceptional. It was in the midst of this political context that the Michael & Susan Dell Center for Healthy Living at The University of Texas School of Public Health, Austin Regional Campus (UTSPH), and the Texas A&M School of Public Health implemented the 2013 Texas Health Perception Survey.

POPULATION AND METHODS

The aim of the 2013 Texas Health Perception Survey was to assess the knowledge, attitudes, and health beliefs of legislators elected to the 83rd Texas Legislature. With a turnover of approximately 50% of Texas legislators since the 2010 state elections, information was needed on the legislative members' knowledge and attitudes on childhood obesity issues in Texas. Survey and interview questionnaires were developed to assess public health and obesity prevention knowledge, attitudes, and health beliefs of legislators as well as influences on health issues, support for specific obesity initiatives, resources for obesity prevention issues, and preferences for communication.¹¹ This legislative survey was conducted as an outreach

of the Texas Childhood Obesity Prevention Policy Evaluation (T-COPPE) project, a grant funded by the Robert Wood Johnson Foundation to investigate how Safe Routes to School and the revised Women, Infants, and Children (WIC) policies are being implemented in Texas.¹⁵⁻¹⁷ The T-COPPE study is a joint study between UTSPH and the Texas A&M School of Public Health. All interview instruments and protocols were reviewed and approved by The University of Texas Health Science Center at Houston Committee for the Protection of Human Subjects (HSC-SPH-12-0645).

The results of the survey are the subject of another paper. This article is intended to speak only to the process of interviewing state legislators and lessons learned.

Advisory Committee and University Governmental Relations Offices

Since this was the first health perception survey conducted with Texas state legislators, the research team first engaged experienced partners who could serve in an advisory capacity, were knowledgeable of the legislative process, and had long-standing credibility among Texas state legislators.

An advisory committee was formed to provide feedback on questionnaire content, individual survey items, communication strategies with legislators, and interpretation of results. The advisory committee consisted of various public health advocates from non-governmental organizations, including the Texas Medical Association (TMA), the Texas Health Institute, the American Heart Association, and the Texas Hospital Association. Many of the advisory committee members were also members of the Partnership for a Healthy Texas, an advocacy group devoted to obesity prevention efforts in Texas. One important partner and member of the advisory committee was a representative from the TMA, who was instrumental in the development and initiation of the survey and was our primary champion and advisor throughout the process.

Also critically important to the planning phase was the involvement of the governmental relations offices of each respective university. Coordination between the governmental relations offices and researchers was essential to avoid any redundancy of current efforts or violation of state university mandates regarding the legislature. In addition, governmental relations staff provided advice and input on questionnaire items and methods of contacting legislators, including how to frame communication with legislators and their staff (Table 1).

Collecting Survey and Interview Data

The research team met at least once per week to monitor survey implementation and/or to respond to staff surveyor questions. A contact information list of legislators was compiled and included each legislator's designated health aide or chief-of-staff, along with committee membership. Staff employed to conduct the surveys were master of public health students from UTSPH. Most of these students had little or no previous experience working at the Texas Capitol or with state legislators or their staff. In a training session conducted by the research team, students role-played various scenarios on how

Table 1: Lessons learned in organizing partnerships: advisory committee and university governmental relations offices

1. Start the planning process as soon as possible as it takes time to inform, mobilize, and secure assistance from key policy gatekeepers and informants.
2. Partner with an effective public health advocate and organization, such as the state medical association, as they are recognized as credible messengers and valued by state legislators.
3. Engage these same expert partners in interpreting the results, thinking through how best to position the results, and staging the release of the data strategically.
4. Prepare a results dissemination plan that includes how, when, with whom, and what format in which to release the results. Be as inclusive as possible – the release of the results should include the advisory committee, key members of the legislature (e.g., committee chairs), the legislators themselves, and other public health advocates/practitioners at both the state and local levels.

to greet, explain, and conduct the legislative survey. Mock interview sessions were set up by the research team so students could practice before they were sent to the Capitol to interview legislators and their staff. Students were later partnered in teams of two to conduct the surveys. Student surveyors met frequently to exchange insights (Table 2).

DISCUSSION

Collecting, reviewing, and analyzing data from the 2013 Texas Health Perception Survey required patience and persistence. The Texas Legislature has a tight 140-day session, with 30-day special sessions called by the governor, as necessary. In 2013, the Texas Legislature had three special sessions, which is rare. The multiple special sessions consumed the attention of Texas legislators, and it was difficult to get them to focus on childhood obesity policy issues with such extreme competing priorities. Thus, there was a narrow window of time to get this survey completed. However, a major achievement was getting the offices to understand the importance of their input on the survey and convincing them to make time to participate. Another major barrier was the tight and unpredictable schedules of legislative offices and staff; additionally, a few offices had a policy about not completing surveys during the legislative session. The research team credits the engagement of its advisory committee with helping to manage communication, preparing the team for potential roadblocks in implementation and communication of findings, and recommending how best to place results for policy action. In addition, the periodic interaction between the funder and the research team gave more national significance to its accomplishment.

CONCLUSIONS

This type of policy research requires timing, communication, and partnership. All three elements need to work synergistically to produce results. Establishing a precedent in Texas for conducting a scientifically-grounded health perception survey among Texas legislators was an unspoken intentional outcome. While the timing of this work during legislative session was less than optimal, researchers need to remain aware of the dynamics associated with gathering and interpreting survey data during the frenetic pace of a legislative session, especially one that is highly contentious. For any similar surveys in the future, it is advisable, whenever possible, to interview state legislators at a time when they can give more thoughtful, deliberate responses that are not influenced by the legislative business at hand.

Table 2: Lessons learned in collecting survey and interview data

1. Send an introductory letter and email message from the research team along with a copy of the survey to introduce the study and the study team. Not only did this communication give a “heads-up” to legislators, it also served as a communication strategy for students when they first made contact with legislative offices.
2. Send students in person to drop off the survey as their first contact with the legislative office rather than make office phone calls. Students should then return to the office repeatedly to get completed surveys. Establishing a visible, persistent presence was essential to achieving a good response rate.
3. Assign each student a certain set of legislators to assure continuity in approach and communication and allow students to assist each other as needed.
4. Make legislator assignments according to the floor plan of the Capitol, not by alphabetical order. Visits were less efficient with the alphabetical order assignments, as they are not arranged in the Capitol in this way.
5. Pay attention to legislative calendars on a daily to weekly basis to work around key political issues. During the student training, the research team described how to interpret legislative calendars to determine when best to visit legislative offices and when to steer around legislative offices based on the legislative issues being considered, especially during the special sessions.
6. Visit offices at the time of day they seem to have more time: in the afternoons during session and mornings once the regular session was over.
7. Emphasize that many other senators/representatives completed the survey and for those who had not, you wanted to include their input.
8. Focus on a manageable group of offices at one time when planning visits to legislative offices. Revisiting those offices repeatedly until as many surveys as possible were collected enabled legislative offices to remember the students name and face, and the survey. Given the brevity of the Texas Legislative Session and the number of competing priorities, it was important to be sure that the request ‘registered’ with them.
9. Have extra copies of the surveys on hand, in case someone inquires about what types of questions are asked to help cut down on return visits and time taken to provide the response.
10. Have one person ask the questions and a second person record responses or take notes for the qualitative interviews.
11. Keep track of names and business cards. It’s always good to remember who you spoke with when you visited the office last. Students felt their credibility was enhanced when they could walk into the door without referring to their notes and ask for that person by name.
12. Visit the office at a different time to speak with a different person, if one person in the office was difficult to engage after three visits.
13. Dress modestly and professionally when visiting legislative offices.
14. Provide students with business cards to leave at the legislative office and a visible organizational name tag to give additional credibility to the students and the survey process.

Nonetheless, the value of this work gives researchers, practitioners, and advocates an opportunity to tailor future communications, refine and advance a childhood obesity policy agenda, and galvanize existing partnerships in public health.

Acknowledgements

The Robert Wood Johnson Foundation funded the 2013 Texas Health Perception Survey project, which surveyed legislators during the 2013 legislative session. The Michael & Susan Dell Center for Healthy Living at The University of Texas School of Public Health and the Texas A&M School of Public Health collaborated on the research and provided student and staff support.

REFERENCES

1. Institute of Medicine (IOM). Committee on Accelerating Progress in Obesity Prevention, Glickman D. Accelerating progress in obesity prevention: solving the weight of the nation. Washington, DC: National Academies Press; 2012.
2. Jones E, Kreuter M, Pritchett S, Matulionis RM, Hann N. State Health Policy Makers: What’s the Message and Who’s Listening? *Health Promotion Practice*. 2006;7(3):280-6.
3. Tabak RG, Jones E, Jacobs JA, Dobbs T, Sutton V, Dove C, Brownson RC. Policy perceptions related to physical activity and healthy eating in Mississippi. *J Public Health Manag Pract*. 2013;19(301):S97.
4. Dodson EA, Stamatakis KA, Chalifour S, Haire-Joshu D, McBride T, Brownson RC. State legislators’ work on public health-related issues: what influences priorities?. *J Public Health Manag Pract*. 2013;19(1):25.
5. Robbins R, Niederdeppe J, Lundell H, Meyerson J. Views of City, County, and State Policy Makers About Childhood Obesity in New York State, 2010–2011. *Prev Chronic Dis*. 2013;10:E195.
6. Anderson L, Foster S, Flynn R, Fitterman M. Assessing Public Policies and Assets That Affect Obesity Risk While Building New Public Health Partnerships, New Hampshire, 2011. *Prev Chronic Dis*. 2013;10:E134.
7. Heinrich KM, Stephen MO, Vaughan KB, Kellogg M. Kansas legislators prioritize obesity but overlook nutrition and physical activity issues. *J Public Health Manag Pract*. 2013;19(2):139-45.
8. Beamer G. Elite interviews and state politics research. *State Politics & Policy Quarterly*. 2002;2(1):86-96.
9. Goldstein K. Getting in the door: Sampling and completing elite interviews. *PS Polit Sci Polit*. 2002;35(04):669-72.
10. Maestas C, Neeley GW, Richardson LE. The state of surveying legislators: Dilemmas and suggestions. *State Politics & Policy Quarterly*. 2003;3(1):90-108.
11. Hoelscher DM, Atteberry H, Nichols D, Menendez T, Dowdy DM, & Ory M. What do Texas legislators think about child obesity? Results from the 2013 Texas Health Perception Survey. Manuscript submitted for publication; 2015.
12. The University of Texas at Austin College of Liberal Arts. Texas politics. The Legislative Branch, Chapter 1.1. Retrieved from http://www.laits.utexas.edu/txp_media/html/leg/0101.html. Accessed 6 February 2015.
13. National Conference of State Legislatures. Annual versus biennial legislative sessions. Retrieved from <http://www.ncsl.org/research/about-state-legislatures/annual-versus-biennial-legislative-sessions.aspx>. Accessed 6 February 2015.
14. Texas Start Alliance. Texas 83rd Legislative Session recap: the Texas 83rd Legislative Session statistics. Updated 10 June 2014. Retrieved from <http://www.texasstaralliance.com/full-texas-83rd-legislative-session-recap/>. Accessed 6 February 2015.
15. Hoelscher DM, Dowdy DM, Evans AE, Menendez T, Nichols D, Wang S, ...& Ory M. Evaluating differences in school population by Safe Routes to School (SRTS) funding allocation: results from the Texas Childhood Obesity Prevention Policy Evaluation (T-COPPE). Under review; 2015.
16. Tisone CA, Guerra SA, Lu W, McKyer EL, Ory M, Dowdy D, Wang S, Miao J, Evans A, Hoelscher DM. Food-shopping environment disparities in Texas WIC vendors: a pilot study. *Am J Health Behav*. 2014;38(5):726-36.
17. Oluyomi AO, Lee C, Nehme E, Dowdy D, Ory MG, Hoelscher DM. Parental safety concerns and active school commute: correlates across multiple domains in the home-to-school journey. *Int J Behav Nutr Phys Act*. 2014;11(1):1.

2013 Texas Health Perception Survey

The Health Perception Survey is being carried out in collaboration between the Michael & Susan Dell Center for Healthy Living at The University of Texas School of Public Health and the Texas A&M Health Science Center, School of Rural Public Health and is part of the *Texas Childhood Obesity Prevention Policy Evaluation (T-COPPE) Project*. The purpose of the survey is to identify knowledge of and perceptions about obesity prevention and control measures and actions among Texas legislators. This project is funded by the Robert Wood Johnson Foundation. **You have been invited to participate in this survey because you are, or you represent, a Texas legislator. If you are the legislator's designee, please note you are completing this questionnaire from the legislative member's perspective.**

- This is a confidential survey and should take around 10-15 minutes to complete.
- There is no right or wrong answer to any of the questions. You can skip a question if you do not want to answer, and you may stop participating in the survey at any time. There is no risk to you or your constituents by completing this survey. Your name will not be used in any publications or reports related to this project, nor will your name be linked to your answers in any way.
- The cover sheet with your name will be destroyed, and only a unique ID number will be assigned to track surveys. Survey completion indicates your agreement to participate in the study.
- The information collected from this survey is private and will be kept in a secure location. Only research scientists and their staff may see the information. Results from the survey will be compiled and reported to the Robert Wood Johnson Foundation, the funding agent. The report will also be distributed to Texas legislators and may be presented at scientific conferences, or in scientific journals.
- This study [HSC-SPH-12-0645] has been reviewed by the Committee for the Protection of Human Subjects (CPHS) at The University of Texas Health Science Center at Houston. If you have questions about your rights as a research subject, you can call the CPHS at The University of Texas Health Science Center at Houston at (713) 500-7943.

Deanna Hoelscher, PhD, is the Principal Investigator. For any questions, please contact the Project Coordinator, Heather Atteberry, at (512) 482-6169.

Name of Legislator

Date

Name of Person Completing Survey (if not Legislator)

Title of Person Completing Survey

For office use only:

Participant ID _____

 **IRB NUMBER: HSC-SPH-12-0645**
IRB APPROVAL DATE: 2/22/2013

1

1. How important are the following factors in determining which health issues you (or the legislator) support?

	Unimportant	Of little importance	Moderately important	Important	Very important
My personal interest in the health issue					
Data on health impact in my local area					
A local leader I trust					
Constituents' needs or opinions					
Position of advocacy groups					
Scientific research					

2. How much do you (or the legislator) agree or disagree with the following statements?

	Strongly disagree	Somewhat disagree	Neutral	Somewhat agree	Strongly agree
I believe I have an excellent knowledge of overweight and obesity issues.					
I believe health is everyone's business.					
I believe health occurs where we live, pray, play, work and attend school.					
I believe obesity prevention is a matter of personal responsibility.					
I believe the state agencies should be involved in reducing the prevalence of obesity in Texas.					
I believe the Texas Legislature should enact policies that support health and wellness.					
I believe childhood obesity is a family matter.					
I believe parents are primarily responsible for their child's weight.					
I believe much can be done to lower the incidence of childhood obesity.					
I believe children will outgrow obesity without intervention help.					
I believe childhood obesity can be addressed through community resources.					
I believe the average Texan has the resources to change their health behavior.					
I believe there is a link between physical fitness and academics.					
I believe there is a link between a healthy diet and academics.					
I believe schools can have an effect on childhood obesity.					

For office use only:

Participant ID ____


IRB NUMBER: HSC-SPH-12-0645
IRB APPROVAL DATE: 2/22/2013

2

3. Would you (or the legislator) support or oppose the following policy recommendations?

	Strongly oppose	Somewhat oppose	Neutral	Somewhat support	Strongly support
Increase access to healthier food, specifically fruits and vegetables.					
Create nutritional guidelines for food sold in vending machines and through food service programs in-state facilities and agencies.					
Improve nutrition and physical activity in early childhood (e.g., preschool) programs.					
Improve the health of schoolchildren by increasing physical activity, health education and other related health measures through School Health Advisory Councils.					
Support evidence-based strategies that decrease consumption of sugar-sweetened beverages, salt, and saturated fat, and which reduce obesity and its related costs from chronic disease.					
Enhance community environments to promote physical activity.					
Support coordinated school health programs that increase physical activity and nutrition education.					
Support health education in high schools.					

4. How much do you (or the legislator) support or oppose the following environmental standards or practices?

	Strongly oppose	Somewhat oppose	Neutral	Somewhat support	Strongly support
Prohibit the sale of soda, chips, candy in school vending machines.					
Prohibit the sale of soda, chips, candy in school cafeterias.					
Limit television ads for unhealthy foods and drinks that are targeted at young children.					
Educate parents about childhood obesity and healthier eating habits for children.					
Provide more physical activity in schools.					
Provide healthier school lunches.					
Ensure new schools and subdivisions are walking and biking friendly.					
Encourage state agencies to provide healthier food through vending and cafeterias.					

For office use only:

Participant ID _____


IRB NUMBER: HSC-SPH-12-0645
IRB APPROVAL DATE: 2/22/2013

5. In your (or the legislator's) opinion, how much of a role should each play in fighting the obesity problem in Texas?

	No role	Minor role	Some role	Major role
Appropriate State Agencies				
Childcare Centers				
Communities				
Employers				
Faith-based Organizations				
Farmers				
Fitness Industry				
Food Industry				
Grocery stores				
Healthcare providers				
Individuals or Personal				
Non-Governmental Organizations (NGOs)				
Parents and Families				
Parks and Recreation Departments				
Research Organizations				
Restaurants				
Schools (K-12)				
State Legislature				
Transportation Groups				
Universities				

6. Do you (or the legislator) use any of the following sources for obesity, nutrition and physical activity information and policy?

	Not At All	Very Little	Some	A Lot
American Public Health Association				
Centers For Disease Control and Prevention (CDC)				
Public Health policy journals				
Live Smart Texas				
Online health sites				
Online news sites (foxnews.com, cnn.com, etc.)				
Partnership for a Healthy Texas				
Public Newspapers				
Schools of Public Health in Texas				
Social Media (Facebook, Twitter, etc.)				
Texas Medical Association				
Texas Public Health Association				
Texas Public Health Coalition				
Texas Universities				
Others: (Comments Optional)				

For office use only:

Participant ID _____


IRB NUMBER: HSC-SPH-12-0645
IRB APPROVAL DATE: 2/22/2013

7. How would you (or the legislator) like to receive public health and obesity related information?

	Yes	No
Email		
Personal communication		
Social Media		
Website		
Written information		
Other: _____		

8. Have you or an immediate family member ever had any of the following diseases? If you are the legislator’s designee, please complete question from the legislative member’s perspective.

	Yes	No	Don’t know/Don’t remember
Cancer			
Diabetes			
Heart Disease or Stroke			
High Blood Pressure			

9. Do you have any other relative, friends or colleagues who have ever had any of the following diseases? If you are the legislator’s designee, please complete question from the legislative member’s perspective.

	Yes	No	Don’t know/Don’t remember
Cancer			
Diabetes			
Heart Disease or Stroke			
High Blood Pressure			

10. What’s the relative influence of the following individuals and groups in determining health priorities in your chamber?

	No influence	Little influence	Neutral	Considerable influence	Major influence
Committee Chairs					
Interest Groups					
Legislative Staff					
Mass Media					
Party Leadership					
State agency leadership or staff					
Statewide elected leadership					
Other Chamber					

For office use only:

Participant ID _____

11. How influential are the following sources of information to you as a state legislator on health issues?

	No influence	Little influence	Neutral	Considerable Influence	Major influence
Faith-based Organizations					
Healthcare Organizations					
Industry Representatives					
Legislative Staff					
Legislature Leadership					
Lobbyists					
Lt. Governor					
Media					
Mental Health Organizations					
National Organizations					
Other Members					
Personal Expertise					
Public Health Organizations					
Schools and Teachers					
Schools of Public Health					
Special Interest Groups					
Speaker of the House					
Statewide elected leadership					
State Agency Personnel					
State Organizations					
Universities					

12. When it comes to fiscal issues how do you (or the legislator) usually think of yourself? (mark one box)

- Extremely liberal
- Liberal
- Slightly liberal
- Moderate
- Slightly conservative
- Conservative
- Extremely conservative
- Don't know

13. When it comes to social issues how do you (or the legislator) usually think of yourself? (mark one box)

- Extremely liberal
- Liberal
- Slightly liberal
- Moderate
- Slightly conservative
- Conservative
- Extremely conservative
- Don't know

For office use only:

Participant ID _____


IRB NUMBER: HSC-SPH-12-0645
IRB APPROVAL DATE: 2/22/2013

14. How many sessions have you (or the legislator) served in the Texas Legislature? _____

15. Have you (or the legislator) ever served as a legislative staffer?

- No
- Yes

16. What appointed public offices have you (or the legislator) held?

	Yes	No
Local, county executive		
Local, county legislative		
Political Party office		
School district		
Statewide office, please list: _____		
Other, please list: _____		

17. What elected public offices have you (or the legislator) held?

	Yes	No
Local, county executive		
Local, county legislative		
Political Party office		
School district		
Statewide office, please list: _____		
Other, please list: _____		

THANK YOU FOR YOUR TIME AND VALUABLE INPUT!

Results from the survey will be compiled and reported to the Robert Wood Johnson Foundation, distributed to Texas legislators and may be presented at scientific conferences, or in scientific journals. Your name will not be used in any publications or reports related to this project, nor will your name be linked to your answers in any way.

For office use only:

Participant ID _____

 **IRB NUMBER: HSC-SPH-12-0645**
IRB APPROVAL DATE: 2/22/2013

7

Physical Activity Associated with Age, Sex, and Seasonality among Park Users in an Unincorporated Community along the Texas-Mexico Border

Jennifer F. Mota, MPH¹, Belinda M. Reininger, Dr.PH.^{1,2}, Jennifer L. Gay, Ph.D.³, Cristina S. Barroso, Dr.PH.⁴, Leslie D. Meyer, Ph.D.¹, Harold W. Kohl III, Ph.D.⁵

¹Division of Health Promotion & Behavioral Sciences, UTHealth School of Public Health in Brownsville. Brownsville, TX.

²University of Texas Health Science Center at Houston, Center for Clinical and Translational Sciences, Houston, TX.

³Department of Health Promotion and Behavior, College of Public Health, University of Georgia, Athens, GA.

⁴Department of Public Health, University of Tennessee, Knoxville, Knoxville, TN.

⁵Michael and Susan Dell Center for Healthy Living, UTHealth School of Public Health in Austin, Austin, TX.

Jennifer.f.mota@uth.tmc.edu

ABSTRACT

Objective: This study examined variations in physical activity (PA) by age, sex and seasonality among park users living in predominantly Mexican American unincorporated community along the Texas-Mexico border.

Methods: Park-based PA was assessed during two time periods using direct observations of 2,446 park visitors. Variation in PA was examined by age, sex, seasonality, intensity level, and type of PA using separate Pearson's chi-square analyses. A multiple logistic regression analysis was conducted to examine the relationship between age group, sex, season, and intensity level of PA.

Results: Sedentary behaviors (32.8%), soccer (20.9%), and basketball (11.9%) were the most commonly observed activities. Multiple logistic regression analysis indicated that younger aged participants were more likely to engage in moderate and vigorous PA compared to older participants. Females were more likely to engage in light-intensity activity (OR = 1.77, $p < 0.001$), but were less likely to participate in moderate and vigorous PA (OR=0.15, $p < 0.001$) compared to males. Park visitors were significantly more likely to engage in light-intensity PA (OR = 1.78, $p < 0.001$) in the summer than in winter, although no difference by season was found for moderate and vigorous PA.

Conclusion: Age and sex differences were found in PA intensity, and seasonality was significantly different for light intensity PA, only. Public officials and planners may use this information to build and design parks that cater to the types of activities that Hispanics of different ages and genders engage in to increase the likelihood of meeting physical activity guidelines.

BACKGROUND

Within the United States, 34.5% percent of the overall population is obese, and even more alarming is that 42.4% of Mexican Americans are obese.¹ The prevalence of obesity among Non-Hispanic whites (aged 20 years and above) has increased steadily over the years from 20.3% for males and 22.9% for females between 1988-1994 to 32.4% for males and 32.8% for females in 2011-2012.² Overall, rates for Mexican Americans are consistently higher and have risen from 23.9% for males and 35.4% for females between 1988-1994 to 43.5% for males and 48.6% for females between 2011-2014.³ Obesity increases the risk of developing chronic diseases such as type 2 diabetes,⁴ cardiovascular disease,⁵ certain cancers,⁶ and stroke and hypertension.⁷ The Centers for Disease Control and

Prevention recommends healthy food choices and engaging in physical activity (PA) as ways to maintain a healthy weight.⁸

Having access to public open spaces is significantly associated with increased levels of PA.⁹ Studies have shown that parks in neighborhoods comprised of lower income residents have lower frequency of usage compared to parks in neighborhoods comprised of higher income residents.¹⁰ Even when similar facilities are present in the parks, the number of individuals who visit parks in higher socioeconomic neighborhoods is greater than the number of individuals who visit parks in neighborhoods of lower socioeconomic status, perhaps suggesting supervised activities and strong marketing influence attendance.¹¹

Research has shown that males engage in more PA than females and that as individuals age, their PA intensity level decreases with younger individuals more likely to engage in higher intensity levels of PA.^{12,13} However, studies have also shown that among college students, less than half engaged in the recommended amount of time of PA and approximately 9% engaged in no PA.¹⁴ More information about intensity levels of PA by age appears warranted.

Seasonality and weather conditions are an often overlooked determinant of trail and park use and can promote or hinder PA behaviors.¹⁵⁻¹⁷ For example, studies have shown that fewer steps are taken during winter when compared to summer.^{18,19} One study compared levels of PA among older adults (aged 65-80 years) during winter and summer months and found that both males and females took fewer steps in winter.¹⁸ Another study examined step counts during summer and winter among normal and overweight adults aged 18-65 years and found both groups took significantly fewer steps during winter compared to summer.¹⁹ Compared to other regions, individuals living in the southern US were less likely to engage in active transport and experienced less variation across seasons.²⁰

Public Health Concern: The Texas Department of State Health Services estimated that by the year 2040 close to 75% of adults living in Texas will be overweight or obese.²¹ Rates of overweight and obesity along the Texas-Mexico border already surpass 2040 estimations with estimated prevalence of overweight/obesity at 84.2% based on findings from the Cameron County Hispanic Cohort [overweight (33.3%) or obese (50.9%)].²² Mexican Americans, who live along the Texas-Mexico border, have been found less likely than Hispanics across the United

States to engage in recommended levels of PA.²³ Another study found that low-income Mexican Americans living along the Texas-Mexico border, who did not engage in recommended levels of PA, were more likely to have metabolic syndrome, which includes obesity and other metabolic health maladies.²⁴ Low levels of PA and high rates of overweight and obesity among this border population are an important public health concern and strategies to improve these conditions warrant further study. To our knowledge, no studies have examined PA of Mexican Americans living on the Texas-Mexico border in association with age, sex, and seasonality.

The purpose of this study was to examine variations in PA by age, sex, and seasonality among park users living in a low-income, unincorporated community along the Texas-Mexico border. We expected that 1) as age increased, the intensity level of PA would decrease, 2) males would engage in more PA than females, and 3) there would be increased levels of PA during the mild winters compared to the hot, humid summers found in this region.

METHODS

Study Setting: Observations were conducted at a five-acre public park located in an unincorporated community along the Texas-Mexico border. The park is landscaped, well maintained, and includes amenities such as free standing swings, covered picnic tables, basketball courts, a marked standard size competition soccer field, a paved ¼ mile walking trail, a play structure with attached slides, and lights for evening use. This community has a population of 6,963, of whom 99.3% are Hispanic with 94.5% identifying as Mexican American, 48.7% are male, 49.1% have incomes below poverty level, the median household income is \$26,307, the median age is 23.7, and the unemployment rate is 17.2%.²⁵

Observation Instrument: The direct observation tool assessing park behavior and usage was adapted from the evaluation of the Riverside Gardens Reserve walking trails project.²⁶ Riverside Gardens Reserve is a family-oriented park that included amenities such as playground equipment and walking paths and is located along the Swan River in Bayswater, Australia.²⁶ PA codes from the original observational tool were modified based on input from two researchers to match specific park amenities found in this study. Training was implemented before observations began to ensure all coders not only understood the meaning of each observation category and potential responses but also had inter-rater reliability in their coding. Additionally, during the first three coding sessions multiple coders were used to ensure reliable observations were obtained across coders. Observations going forward were conducted by single observers. However, to ensure reliable measures were maintained 20% of all observations were conducted by at least two coders. The lead author served as the gold standard observer and was the person who paired with other coders for the reliability observations. The two observers would jointly scan the same area of the park but code individually. After each session, differences in coding were discussed, and reliability assessments were repeated until all codes were consistent. A reconciled observation form was produced for the session in question, and data from the reconciled form were used in the analysis. Although in this study it was not necessary, coders

would have been retrained had original coding protocols not been followed. All procedures and instrumentation were approved by the Committee for the Protection of Human Subjects of UT Health School of Public Health prior to data collection.

Observations and Data Collection: Data were collected at two time points, summer 2007 and winter 2009. Data were not collected summer 2008 due to Hurricane Dolly and winter 2008 because of park renovations. Each observation day was divided into three shifts: morning (8:00 am - 10:00 am), mid-day (12:00 pm - 2:00 pm), and evening (5:00 pm - 7:30 pm). The observer was positioned to have an unobstructed view of the park and recorded each person (park user) in the park. The information recorded included: entry and exit times of park users, weather conditions (sunny/pleasant, windy, overcast/cloudy, light rain, heavy rain), temperature, estimated age group (0-4, 5-12, 13-19, 20-39, 40-59, 60+years, and unknown). For this study, we limited the analysis to the following age categories to ensure a robust sample size: children (5-12), teenagers (13-19), young adults (20-39) and middle-aged adults (40-59). Sex (male and female) and activities that park users participated in while at the park/trail to include walking, jogging/running, wheelchair (self-propelled), biking for fitness, pedestrian walking, informal games, basketball, soccer, baseball/softball, etc. were documented in addition to whether the park user was alone, with friends/family, or entered the park with a dog leashed/unleashed. Types of PA were determined using standard level of intensity values and were re-coded into the following categories: sedentary, light-intensity, and moderate and vigorous intensity PA.

Statistical Analysis: Frequencies were calculated for sex, age groups, and season. Separate Pearson's chi-square analyses were conducted to address variation in PA by season and within seasons by age and sex. A multiple logistic regression analysis was conducted to assess the relative contribution of age group, sex, and season to intensity level of PA. Analyses were conducted using SPSS version 19 (SPSS, Inc., Chicago IL).

RESULTS

Descriptive Statistics: Momentary sampling scans allowed for the observation of 2,446 park visits. Fifty-six observation shifts (34 summer 2007 and 22 winter 2009) took place across a total of 41 days. Among all age groups, children (27.8%) and young adults (34.3%) were observed most frequently. Four out of 10 park users engaged in sedentary behavior (41.8%) and over one-third engaged in moderate and vigorous intensity PA (36.0%). More park visitors were observed in the summer (54.3%) than during the winter (45.7%). The most frequently recorded activities in which park users engaged were standing/sitting/lying down (32.8%) and organized soccer games (20.9%). The majority of visitors to the park were male (65.3%).

Weather Statistics: A summary of weather characteristics during observations is provided in Table 1. The average temperature in winter (73°F) was 15° cooler in comparison to summer (88°F). During the summer 27% of observation days were sunny/pleasant whereas, in the winter, only 14% were sunny/pleasant.

PA Intensity by Age Group and Season: The greatest difference

Table 1. Proportion of Observations by Temperature and Primary Weather Condition during Observation Periods

Variable	Summer 2007 (n=34 shifts) % (n)	Winter 2009 (n=22 shifts) % (n)
Average Recorded Temperature	88°F	73°F
Sunny/Pleasant	79.4 (27)	63.6 (14)
Windy	11.8 (4)	27.3 (6)
Overcast/Cloudy	8.8 (3)	9.1 (2)
Light Rain	0.0	0.0
Heavy Rain	0.0	0.0

in seasonal PA was observed among young adults. Teenagers, young adults, and middle aged adults engaged in sedentary behavior more frequently during winter than during summer (Table 2). However, children engaged in a greater proportion of sedentary behaviors in summer (20.1%) compared to winter (15.0%; $p < 0.001$). Children engaged in light-intensity PA more frequently in summer (48.3%) compared to winter (39.1%; $p < 0.001$), as did middle-aged adults (49.2% and 26.5%, respectively; $p = 0.010$). More than twice the proportion of young adults participated in moderate and vigorous PA in the summer (33.5%) compared to winter (13.8%; $p < 0.001$).

Table 2. Proportion of Park Users by Estimated Age Group and Intensity of Activity (n=2552)

Age group:	Sedentary		Light-Intensity		Moderate and Vigorous Intensity		χ^2 (2)	p-value
	Summer 2007 n=523	Winter 2009 n=444	Summer 2007 n=439	Winter 2009 n=251	Summer 2007 n=540	Winter 2009 n=355		
Children (5-12 years)	102 (19.5%)	57 (12.8%)	245 (55.8%)	148 (59.0%)	160 (30.0%)	174 (49.0%)	19.17	< 0.001
Teenagers (13-19 years)	129 (24.7%)	142 (32.0%)	56 (12.8%)	33 (13.5%)	189 (35.0%)	138 (38.9%)	9.18	0.010
Young adults (20-39 years)	264 (50.5%)	198 (44.6%)	106 (24.1%)	52 (20.7%)	186 (34.4%)	40 (11.3%)	42.80	< 0.001
Middle aged adults (40-59 years)	28 (5.4%)	47 (10.6%)	32 (7.3%)	18 (7.2%)	5 (1.0%)	3 (0.8%)	9.17	0.010

Note: Adults age 60 years and older are not included in the table due to the low numbers observed (n=8 across both winter and summer observations)

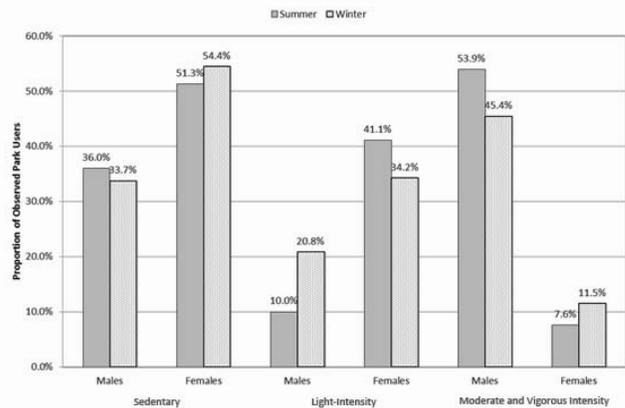
Activities by Sex and Season: The six most frequently observed PAs are shown in Table 3. More males engaged in sedentary behaviors during the summer (62.9%) compared to females (44.7%), whereas in the winter males engaged in less sedentary behavior (37.1%) compared to females (55.3%; $p < 0.001$). A greater proportion of males played soccer in summer (61.4%) compared to females (27.3%), but in winter, smaller proportion of males (38.6%) played soccer than females (72.7%; $p < 0.001$). Fewer males walked in summer (46.7%) compared to females (67.5%; $p = 0.034$), but a greater proportion of males walked in winter (53.5%) compared to females (32.5%; $p = 0.034$).

PA Intensity by Sex and Season: Overall, males engaged more frequently in PA than females, and males engaged less often in sedentary behaviors and light-intensity PA than females (Figure 1). Males participated in less light-intensity PA in summer compared to winter (10.0% and 20.8%, respectively), and a greater proportion of males participated in PA in summer (53.9%) than

Table 3. Proportion of Park Users' Activities by Season and Sex (n=1872)

Activity:	Summer 2007		Winter 2009		χ^2 (1)	p-value
	Female	Male	Female	Male		
Standing/sitting/lying down (n=800)	136 (17.0%)	312 (39.0%)	168 (21.0%)	184 (23.0%)	25.24	< 0.001
Soccer (n=512)	9 (1.8%)	294 (57.4%)	24 (4.7%)	185 (36.1%)	14.87	< 0.001
Basketball (n=290)	11 (3.8%)	178 (61.4%)	14 (4.8%)	87 (30.0%)	5.40	0.020
Jumping/running/climbing/playing at swings (n=222)	33 (14.9%)	25 (11.3%)	78 (35.1%)	86 (38.8%)	1.49	0.222
Supervising Children (n=202)	65 (32.2%)	25 (12.4%)	79 (39.1%)	33 (16.3%)	0.069	0.792
Walking (n=148)	81 (54.7%)	14 (9.5%)	38 (25.7%)	15 (10.1%)	3.97	0.046

Figure 1. Comparison of Park Users' Physical Activity Intensity by Sex and Season



winter (45.4%; $p < 0.001$). Females participated in more light-intensity PA in summer (41.1%) than in winter (34.2%), but fewer females engaged in PA in summer than in winter (7.6% and 11.5%, respectively; $p = 0.040$).

Multiple logistic regression: Results of the multiple logistic regression indicate that park visitors are significantly more likely to engage in light-intensity PA (OR = 1.78, $p < 0.001$) in summer than in winter (Table 4). Additionally, teenagers (OR=0.56, $p = 0.011$) and young adults (OR=0.48, $p < 0.001$) are significantly less likely to engage in light-intensity PA than middle-aged adults. Children were significantly more likely to engage in light-intensity PA (OR=3.88, $p < 0.001$) than middle-aged adults. Females were significantly more likely (OR=1.77, $p < 0.001$) than males to participate in light-intensity PA.

There were no significant differences in moderate and vigorous PA by season across all park visitors. Children (OR=15.94, $p < 0.001$), teenagers (OR=7.69, $p < 0.001$) and young adults (OR=4.25, $p < 0.001$) are significantly more likely to engage in moderate and vigorous intensity PA than middle-aged adults. Females were significantly less likely to engage in moderate and vigorous intensity PA compared to males (OR = 0.15, $p < 0.001$).

DISCUSSION

The current investigation used direct observation techniques to examine levels of PA by age, sex, and season in an unincorporated

Table 4. Logistic Regression Model for Probability by Physical Activity Intensity Level

Variable	Odds Ratio (95% CI)	p-value
Light Intensity PA		
Season		
Summer 2007	1.78 (1.43, 2.22)	< 0.001
Winter 2009	1.00	
Age		
Children	3.88 (2.57, 5.85)	< 0.001
Teenagers	0.56 (0.36, 0.87)	0.011
Young adults	0.48 (0.32, 0.72)	< 0.001
Middle Age Adults*	1.00	
Sex		
Male	1.00	
Female	1.77 (1.42, 2.21)	< 0.001
Moderate and Vigorous Intensity PA		
Season		
Summer 2007	1.19 (0.97, 1.46)	0.102
Winter 2008	1.00	
Age		
Children	15.94 (7.39, 34.35)	< 0.001
Teenagers	7.70 (3.59, 16.49)	< 0.001
Young adults	4.25 (1.98, 9.11)	< 0.001
Middle Age Adults*	1.00	
Sex		
Male	1.00	
Female	0.15 (0.12, 0.20)	< 0.001
*Reference group		
Babies, toddlers, and older adults are not included because of low sample size		

rated community along the Texas-Mexico border. As we hypothesized, as age increased PA intensity decreased and males participated in moderate and vigorous PA more than females. Contrary to our hypothesis there were no differences in moderate and vigorous PA by season, but significantly more light intensity activity during the summer.

This study is the first of its kind to evaluate seasonal variations by physical activity among Mexican American adults attending a park in a low-income area, particularly in a sub-tropical climate. Park attendees who were younger were more likely to engage in higher intensity levels of PA in comparison to those who were older. Children were significantly more likely to participate in light intensity and moderate and vigorous PA than any other age category. The facilities of the park particularly the playground area may have encouraged greater activity for this age group.

Males were more likely to be moderately and vigorously physically active than females. Type of PA by season and sex were analyzed, and significant differences were found among males who participated in a sport related PA, such as soccer, in the summer compared to the winter. Overall, males engaged in more PA in the summer rather than the winter. More males overall were observed in the park compared to females. This may be attributed to park design that included a marked standard size competition soccer field and basketball courts. Another factor contributing to the presence of more males in the park overall could be lack of access to childcare²⁷ and transportation²⁸ found in other studies to hinder PA.

The lack of difference in moderate and vigorous PA by season may be attributed to several factors, many of which deserve more study. For example, it is possible that residents have acclimated to the summer heat which is more extreme than the mild winters with the result being similar patterns of PA. Another factor was the consistently, extremely low levels of mod-

erate and vigorous PA for females in the summer and winter, and much higher levels of moderate and vigorous PA among males in both the summer and winter. Only a few females were observed to be casually playing soccer and basketball in both seasons, although a small female's soccer team had formed by the winter observation. The males, however, were involved in soccer and basketball leagues at both observation points and as such, much larger numbers of males played in year round sports. Therefore, rather than season influencing activity, it appears that park programming promoted activity in both summer and winter, primarily for males.

A strength of this study is the examination of seasonality in a temperate climate with less variation in temperature compared to extreme climates. Results indicate that despite a lack of dramatic weather shifts, differences in light intensity PA patterns persist. This suggests that variation in park activities and PA intensity may be attributable to seasonal changes other than weather, such as during the school year versus summer break.

A limitation of this study is that a rigorous test of validity on the observation tool was not conducted specific to this setting and population. However, validity was addressed to some extent with modifications made to the tool based on researchers examining the park features and conferring on elements to include in the observation tool. Another limitation is that Hurricane Dolly made local landfall summer of 2008 and the park was closed winter 2008 for renovations. The walking trail was widened and expanded, one basketball court was remodeled, a covered area with steel tables and a barbecue pit were added, and fencing was installed around the entire park perimeter, possibly affecting how individuals accessed the park and slightly expanding the options for moderate and vigorous activity. Despite these changes and gap in time, the results indicate there were no differences in moderate and vigorous activity between seasons.

Another limitation of the study was that the primary PA recorded for each park user was the only PA included in this analysis. This approach does not take into account that a park user could have been engaged in multiple types of PA. Also, data were not self-reported by individual park users and as such, demographic information including age group was based on observer estimation, which could have introduced bias.

The sample observed in this study may not be representative of the larger population, particularly those with higher incomes, nor does it consider the amount of engagement in PA outside of the park. This study is not generalizable outside of an unincorporated community along the Texas-Mexico border.

Future studies should focus on the types of PA Mexican Americans engage in across different park settings. For example, activities such as exercise classes, walking groups, or team sports amenities should be examined by age, sex, seasonality and level of intensity. These results can provide insight into the park-based PA patterns. As additional research illuminates park programming options, along with age, sex and seasonality differences, public officials and planners can use this information to design and build parks that attract children and adult

males and females with the goal of increasing the percentage of the population meeting PA guidelines.

ACKNOWLEDGMENTS

We would like to thank Marcelina Martinez, Alfredo Hernandez, Rosa Saucedo, Lisa Mitchell-Bennett, Vanessa Saldana, and Pablo Sanchez for assisting with data collection and analysis. We also thank the Cameron County Parks Department. We thank Michelle Vidoni and Mary Kate Martin for their assistance in preparing the manuscript. Partial funding for this research was provided by the National Institutes of Health, National Center for Minority Health Disparities (P20 MD000170) to UTHealth School of Public Health, Hispanic Health Research Center, Brownsville, TX. This work was also partially supported by the Center for Clinical and Translational Sciences, which is funded by National Institutes of Health Clinical and Translational Award UL1 TR000371 from the National Center for Advancing Translational Sciences. The content is solely the responsibility of the authors and does not necessarily represent the official views of National Institutes of Health, National Center for Minority Health Disparities, the Center for Clinical and Translational Sciences, or the National Center for Advancing Translational Sciences.

REFERENCES

1. Dominguez K, Penman-Aguilar A, Chang MH, et al. Vital signs: Leading causes of death, prevalence of diseases and risk factors, and use of health services among Hispanics in the United States 2009-2013. *MMWR Morb Mortal Wkly Rep.* 2015;64(17):469-478.
2. Fryer Centers for Disease Control and Prevention. Prevalence of Overweight, Obesity, and Extreme Obesity Among Adults: United States, 1960-1962 Through 2011-2012: *Centers for Disease Control and Prevention*;2014.
3. Centers for Disease Control and Prevention. Health of Mexican American population: CDC Website. <https://www.cdc.gov/nchs/fastats/mexican-health.htm>. Published October; 2016.
4. Lee SH, Yang HK, Ha HS, et al. Changes in metabolic health status over time and risk of developing type 2 diabetes: a prospective cohort study. *Medicine.* 2015;94(40).
5. Grover SA, Kaouache M, Rempel P, et al. Years of life lost and healthy life-years lost from diabetes and cardiovascular disease in overweight and obese people: a modelling study. *The lancet Diabetes & endocrinology.* 2015;3(2):114-122.
6. Gallagher EJ, LeRoith D. Obesity and diabetes: the increased risk of cancer and cancer-related mortality. *Physiological reviews.* 2015;95(3):727-748.
7. Goldstein LB, Bushnell CD, Adams RJ, et al. Guidelines for the primary prevention of stroke a guideline for healthcare professionals from the American Heart Association/American Stroke Association. *Stroke.* 2011;42(2):517-584.
8. Centers for Disease Control and Prevention. Adult obesity causes and consequences: CDC Website. <http://www.cdc.gov/obesity/adult/causes.html>. Published June; 2015.
9. Koohsari MJ, Mavoa S, Villanueva K, et al. Public open space, physical activity, urban design and public health: Concepts, methods and research agenda. *Health & Place.* 2015;33:75-82.
10. Cohen DA, Han B, Derose KP, et al. (2012). Neighborhood poverty, park use, and park-based physical activity in a Southern California city. *Social Science & Medicine.* 2012;75(12), 2317-2325.
11. Cohen DA, Han B, Nagel CJ, et al. The First National Study of Neighborhood Parks: Implications for Physical Activity. *American Journal of Preventive Medicine.* 2016;51(4),419-426.
12. Troiano RP, Berrigan D, Dodd KW, et al. Physical activity in the

United States measured by accelerometer. *Medicine and Science in Sports and Exercise.* 2008;40(1),181-188.

13. Arredondo EM, Sotres-Alvarez D, Stoutenberg M, et al. Physical Activity Levels in US Latino/Hispanic Adults: Results From the Hispanic Community Health Study/Study of Latinos. *American Journal of Preventive Medicine.* 2016;50(4),500-508.
14. Magoc D, Tomaka J, Shamaley AG, et al. Gender Differences in Physical Activity and Related Beliefs Among Hispanic College Students. *Hispanic Journal of Behavioral Sciences.* 2016;38,279-290
15. Edwards NM, Myer GD, Kalkwarf HJ, et al. Outdoor Temperature, Precipitation, and Wind Speed Affect Physical Activity Levels in Children: A Longitudinal Cohort Study. *Journal of Physical Activity & Health.* 2015;12(8).
16. Abildso CG, Zizzi S, Abildso LC, et al. Built Environment and Psychosocial Factors Associated With Trail Proximity and Use. *Am J Health Behav.* 2007;31(4):374-383.
17. Tucker P, Gilliland J. The effect of season and weather on physical activity: A systematic review. *Public Health (Elsevier).* 2007;121(12):909-922.
18. Kimura T, Kobayashi H, Nakayama E, et al. Seasonality in physical activity and walking of healthy older adults. *Journal of physiological anthropology.* 2015;34(1):1.
19. Clemes SA, Hamilton SL, Griffiths PL. Summer to winter variability in the step counts of normal weight and overweight adults living in the UK. 2011.
20. Yang Y, Roux AV, & Bingham CR. Variability and seasonality of active transportation in USA: evidence from the 2001 NHTS. *International Journal of Behavioral Nutrition and Physical Activity.* 2011;8(1),1.
21. McCusker M, Sanchez E, Murdock S, Hoque N, Huang P. The Burden of Overweight and Obesity in Texas, 2000-2040. 2004; http://www.dshs.state.tx.us/obesity/pdf/Cost_Obesity_Report.pdf Accessed July 21, 2016.
22. Fisher-Hoch SP, Vatcheva KP, Rahbar MH, et al. Undiagnosed Diabetes and Pre-Diabetes in Health Disparities. *Plos One.* 2015;10(7).
23. Reininger BM, Wang J, Fisher-Hoch SP, et al. Non-communicable diseases and preventive health behaviors: a comparison of Hispanics nationally and those living along the US-Mexico border. *BMC Public Health.* 2015;15(1),1.
24. Wu S, Fisher-Hoch SP, Reininger B, et al. Recommended Levels of Physical Activity Are Associated with Reduced Risk of the Metabolic Syndrome in Mexican-Americans. *Plos One.* 2016;11(4):e0152896.
25. United States Census Bureau. American Fact Finder Community Facts Cameron Park CDP, Texas. 2016; http://factfinder.census.gov/bkmk/cf/1.0/en/place/Cameron_Park_CDP_Texas/POPULATION/DECENNIAL_CNT. Accessed July 22, 2016.
26. Bayly LFKP, Anne; Di Francesco, Assunta. Evaluation of Riverside Gardens Reserve Walking Trails Project Interventions: Eastern Perth Public and Community Health Unit, Royal Perth Hospital, Perth; 2001.
27. Bautista L, Reininger B, Gay JL, et al. Perceived barriers to exercise in Hispanic adults by level of activity. *Journal of Physical Activity & Health.* 2011; 8(7), 916.
28. Mier, N., Medina, A. A., & Ory, M. G. (2007). Mexican Americans with type 2 diabetes: perspectives on definitions, motivators, and programs of physical activity. *Prev Chronic Dis,* 4(2), A24.
29. McKenzie TL, Cohen DA, Sehgal A, Williamson S, Golinelli D. System for Observing Play and Recreation in Communities (SOPARC): reliability and feasibility measures. *Journal of physical activity & health.* 2006;3:S208.



Book Review: *Against Empathy: The Case for Rational Compassion*

by Paul Bloom, c. 2016.

Does feeling for others make for bad public health policy?

Carol A. Galeener, PhD, MPH

You are only ever as happy as your unhappiest child. This old adage observes that parents of grown children tend to experience, in a very real way, the pain of an adult child in distress. Of course this knowledge is not something that parents ever tell their adult children who are themselves contemplating procreation. If the truth of this saying had been widely shared – and had been believed by a skeptical progeny -- the human race would likely long ago have climbed back into the trees and sat quietly waiting for the final moment, childless and alone.

To the public health community this kind of raw emotional response lies close to the surface– and Bloom would frame that as a potential problem. In this book Bloom, who is a psychology professor at Yale, distinguishes emotional empathy, walking in another’s emotional footsteps, from cognitive empathy, the ability to understand what another is thinking and why. He makes the case that emotional empathy is important, particularly to bond parents to helpless children, but it makes for a very bad basis on which to build public policy. Cognitive empathy is necessary albeit not sufficient to guide moral actions, since it can be used for either great good or great harm. Bloom notes that charlatans and psychopaths seem to be particularly adept at understanding the workings of their targets’ minds. Bloom’s definitions of empathy are quite narrow and he notes that the term “empathy” is often confused with compassion, a quality that Bloom highly prizes. While the empathic individual feels another’s pain, the compassionate individual works to understand and alleviate that pain without necessarily being in thrall to the same emotion.

For the last quarter century we have been relentlessly regaled by politicians of both stripes that our social problems stem from a lack of empathy. We are also told that we should want politicians who empathize with us, who “bleed” for us, or who will “fight for us.” Bloom maintains that we have rather too much empathy and not enough rational compassion. What he proposes is that compassion and rationality, rather than emotional empathy, should guide our public actions – a heart informed by compassion and a head to make the inevitable difficult choices that must be made in a world of finite resources. He makes the case that privileging empathy over compassion and rationality inevitably distorts our priorities and blinds us to our options.

Bloom makes a three-fold argument to demote empathy from a force in policy-making. First, empathy favors those close to us and those present to us in time. There is a reason our old adage speaks to the pain parents feel when their children are unhappy, not when our neighbors are distressed, or when the people in the next town over are unhappy, let alone when someone in a land far away falls ill. While we may think we can conjure up as much empathy for those who are remote

to us in time or place, evolution has worked to provide us a lens that is nearsighted in the present and grows blurry in contemplating the future. Unwittingly, this distortion leads us to support policies that are biased toward people who are like us, and that produce benefits for those currently alive at the expense of future generations.

Secondly, we know from a large body of research over the past forty years that we tend to be woefully innumerate in our decision-making. Willingness-to-pay research demonstrates that often we will pay barely more for a ten-fold positive outcome than for a single positive outcome. We also tend to misinterpret statistics and their meaning in making decisions, a source of consternation for those who support evidence-based public health and evidence-based medicine. Over these four decades behavioral economics has shed light on our mental biases and provided a framework to explain our sometimes inexplicable actions. Still, it is the poster child who attracts attention and donations while other more worthy causes languish with empty coffers. Marketing trumps reason. Bloom suggests that cost-benefit analysis (broadly defined) should be a hallmark of the process by which our public decisions are made. I suspect that he would be wary of any law that is named after a prototypical victim of some injustice.

Finally, empathy can, in itself, produce evil. It can provoke harm and violence against those who do not qualify -- by our definition -- as worthy of our empathy. History is littered with examples of emotions aroused to achieve ends that are evil and some of those examples are very current. The bi-partisan litany of threats of violence against individuals emanating from the recent election should serve as a cautionary tale in this regard.

Bloom notes the similarity of his views with that of the Effective Altruism movement which helps donors find the most efficacious and efficient charity to which to donate based on the donor’s values (e.g., cf. givewell.org). However, it is his insight into the negative role that emotional empathy plays in decision-making that is important in public health. Public health tends to attract people who wish to do good for others. Bloom would suggest that the good that is done should be seen through as wide and as clear a lens as possible – the kind of lens that compassion with reason can provide.



GIS Day, Texas Department of State Health Services, Austin, Texas, November 16, 2016

Alassane Barro

Texas Department of State Health Services, Austin, Texas

alassane.barro@dshs.state.tx.us

On November 16, 2016, the Department of State Health Services (DSHS) in Austin, Texas, hosted GIS Day, where presentations were given and posters displayed that described the importance and utility of GIS (Geographic Information Systems) analyses in public health.

Following is a list of presentations from GIS Day. For more information on particular presentations, please contact Alassane Barro at alassane.barro@dshs.state.tx.us.

1. Children's Optimal Health: Enhancing Community Response Capacity with Interactive Mapping

Susan Millea, PhD; Nic Moe, BA; Mohan Rao, MS
Children's Optimal Health
smillea@cohtx.org

Abstract: This year, the regional percentage of students ready for Kindergarten in central Texas dropped significantly, from 53% to 41%, according to research conducted by E3 Alliance. The rate is lower than it has been in the previous 5 years. Cross-sector community partners, including social service agencies, health providers, school districts and local philanthropic organizations are working together to understand what is behind the finding, and act to improve outcomes for young children in the Austin area. Children's Optimal Health is assisting this effort with an interactive mapping tool using shared data from multiple sources. The presentation will review the findings from E3, identify challenges to understanding the population health of young children at a sub-county geography, share work pertinent to early childhood development in Travis County, demonstrate the use of an interactive mapping tool being deployed to support decision-making by local experts and funders, and identify desired partnerships to advance the effort.

2. Automated Map Production for Zika Strike Teams

Aja Davidson, MS
DSHS
aja.davidson@dshs.state.tx.us

Abstract: In the event of local Zika virus transmission in Texas, strike teams will be deployed in the field to assist with epidemiologic and environmental surveys, collecting biologic specimens for testing, and disseminating educational materials. A critical component of the response effort will be accurate and timely maps both for the strike teams and at Incident Command. An automated data analysis and map creation process has been developed by Regional and Local Health Services to aid Zika Strike Teams in the field. The process includes three primary steps: executing two ArcGIS models, manually determining survey clusters and symbolizing the data, and exporting maps using a Python script. Automating the map making process will ensure data consistency, support

method sharing between headquarters and regions, and increase the likelihood that a single GIS user can support simultaneous locally-transmitted Zika cases. Although this process has been designed for a Zika response, it has the potential, with slight modifications, to be applied in other scenarios including the spread of other vector-borne infectious diseases or highly contagious infectious diseases spread through person-to-person or droplet contact.

3. Predicting the geographic space dynamic of malaria vectors under climate change scenarios using data-driven modeling approach

Alassane Barro, PhD
DSHS
alassane.barro@dshs.state.tx.us

Abstract: Malaria is still a public health problem in Africa, and particularly in Burkina Faso, where the *Anopheles gambiae* complex is responsible for the transmission of the disease. Malaria vectors are climate sensitive, which suggests that climate change may impact the future risk of transmission. This study evaluates future (year 2050) malaria transmission risk in Burkina Faso by quantifying changes in the geographic distribution of three molecular forms of *Anopheles* species: *Anopheles gambiae* S and M, and *Anopheles arabiensis*. The study integrates the ecological niche modelling framework and geographic information systems. Overall, results indicate spatial differences in the current distribution of the three molecular forms: suitable areas for *Anopheles gambiae* M span the northern area to the center of the country, while the geographic space of *Anopheles gambiae* S extends between the Southern and center limits; conducive areas of *Anopheles arabiensis* mostly lie in the center of the country. Under climate change scenarios, there will likely be a reduction, and shift of the potential geographic ranges of the 3 molecular forms of malaria vectors. These findings can be of great value for strategic planning of future malaria vectors control.

4. Geocaching

Following are abstracts of some of the posters from GIS Day. For more information on particular abstracts, please contact the corresponding author at the email provided.

1. Geographic Distribution of Texas Bull Nettle (*Cnidioscolus texanus*): Reported Location vs Texas Poison Center Exposures

Mathias B Forrester, BS
DSHS
mathias.forrester@dshs.state.tx.us

Abstract: Background: Texas bull nettle (*Cnidioscolus texanus*) is covered in bristly hairs. Contact with the plant may re-

sult in dermal pain, burning, and itching. *C. texanus* is native to Arkansas, Kansas, Louisiana, Oklahoma, and Texas. The plant is reported to be found in 80 Texas counties, according to the United States Department of Agriculture (USDA), and 96 Texas counties, according to the Biota of North America Program (BONAP). Objective/Hypothesis: This study compares the location of *C. texanus* according to the USDA and BONAP to where exposures to poison centers were reported from. Methods: Cases were *C. texanus* exposures reported to Texas poison centers during 2000-2015. The distribution of cases was determined for caller county and compared to those counties reported by the USDA and BONAP. Results: In total, 138 *C. texanus* exposures were reported from 51 Texas counties. Sixty-four percent of the exposures were reported from counties where the plant is reported to be found, according to the USDA, and 65% from counties where the plant is reported to be found, according to BONAP. Twenty-two (43%) of the counties where the *C. texanus* exposures were reported from were not counties where the USDA/BONAP reported the plant to be found. However, all but one of these 22 counties were adjacent to those counties reported by the USDA/BONAP. Discussion: Although the majority of *C. texanus* exposures were reported from counties where the plant is reported to be found, over one-third were from other counties.

Abstract: Maps are a commonly used tool to display geographically distributed public health data to help both researchers and policy-makers better understand the geographical patterns of important measurements. Choropleth maps are especially common, as they aggregate data over regions of interest, such as counties. Public health professionals often use proprietary mapping software, which is expensive, often costing thousands of dollars for a single license. Further, many platforms are limited in the extent to which the user can flexibly and easily automate the creation of maps, even when common design elements are present. Python offers free, open-source libraries that allow users to map data and to flexibly automate map generation. The purpose of this project is to show how public health researchers and analysts without any specialized GIS knowledge can use the Python programming language to cheaply, efficiently, and simply create attractive and understandable choropleth maps of key data for presentations, reports, proposals and needs assessments. Further, it introduces a free, open-source tool, built on Python's Pandas and Geopandas platforms. This tool allows users with basic programming and GIS knowledge to quickly generate choropleth maps of county-level data with just a few lines of code.

2. Mapping data with free, open-source Python code

Rachel Asquith, MS, MA
DSHS
Rachel.Asquith@dshs.state.tx.us

Get Involved with TPHA – Join a Committee!

**Looking for an opportunity to support the goal and activities of TPHA?
Committees are great way to become involved.**

What do Committee members do?

- **Provide feedback,**
- **Work on special projects,**
- **Develop recommendations for supporting the goals and mission of TPHA,**
- **Meet other people passionate about public health and TPHA.**

Many committees for TPHA members to choose from, standing committees include:

- ***Membership*** (help build the membership base of TPHA),
- ***Professional Development*** (identify ways TPHA can promote professional development),
- ***Marketing*** (help increase awareness about TPHA and public health),
- ***Programs*** (plan the annual conference),
- ***Planning & Operations*** (review TPHA business procedures),
- ***Legislative, Policy, & Advocacy*** (identify & recommend policy, legislation, and/or advocacy opportunities for TPHA).

Easy to get involved! Just send an email to txpha@aol.com stating which committee you are interested in and you will be put in touch with the committee chair.

TPHA HONORARY LIFE MEMBERS

- | | | |
|-----------------------------|------------------------------|-----------------------------------|
| 1948 V. M. Ehlers* | 1975 Lou M. Hollar* | 1994 David M. Cochran, PE |
| 1949 George W. Cox, MD* | 1976 M. L. McDonald* | 1995 JoAnn Brewer, MPH, RN* |
| 1951 S. W. Bohls, MD* | 1977 Ruth McDonald* | 1996 Dan T. Dennison, RS, MT, MBA |
| 1952 Hubert Shull, DVM* | 1978 Maggie Bell Davis* | 1997 Mary McSwain, RN, BSN |
| 1953 J. W. Bass, MD* | 1978 Albert Randall, MD* | 1998 Robert L. Drummond |
| 1954 Earle Sudderth* | 1979 Maxine Geeslin, RN | 1999 Nina M. Sisley, MD, MPH* |
| 1956 Austin E. Hill, MD* | 1979 William R. Ross, MD* | 2000 Nancy Adair |
| 1957 J. V. Irons, ScD* | 1980 Ed L. Redford* | 2001 Dale Dingley, MPH |
| 1958 Henry Drumwright | 1981 W. V. Bradshaw, MD* | 2002 Stella Flores |
| 1959 J. G. Daniels, MD* | 1981 Robert E. Monroe* | 2003 Tom Hatfield, MPA |
| 1960 B. M. Primer, MD* | 1982 William T. Ballard* | 2004 Janet Greenwood, RS |
| 1961 C. A. Purcell* | 1983 Mike M. Kelly, RS | 2005 Charla Edwards, MPH, RN |
| 1962 Lewis Dodson* | 1983 Hugh Wright* | 2006 Janice Hartman, RS |
| 1963 L. P. Walter, MD* | 1984 Hal J. Dewlett, MD* | 2007 Jennifer Smith, MSHP |
| 1964 Nell Faulkner* | 1984 C. K. Foster | 2008 Catherine D. Cooksley, DrPH |
| 1965 James M. Pickard, MD* | 1985 Edith Ehlers Mazurek* | 2009 Hardy Loe, M.D. |
| 1966 Roy G. Reed, MD* | 1985 Rodger G. Smyth, MD* | 2010 John R. Herbold, DVM, PhD |
| 1967 John T. Warren* | 1986 Helen S. Hill* | 2012 Bobby D. Schmidt, M.Ed |
| 1968 D. R. Reilly, MD* | 1986 Henry Williams, RS* | 2013 Sandra H. Strickland, DrPH, |
| 1969 James E. Peavy, MD* | 1987 Frances (Jimmie) Scott* | RN |
| 1970 W. Howard Bryant* | 1987 Sue Barfoot, RN* | 2014 Jacquelyn Dingley, RN, BSN, |
| 1970 David F. Smallhorst* | 1988 Jo Dimock, RN, BSN, ME* | MPH, MBA |
| 1971 Joseph N. Murphy, Jr.* | 1988 Donald T. Hillman, RS* | 2015 Bobby Jones, DVM, MPH, |
| 1972 Lola Bell* | 1989 Marietta Crowder, MD* | DACVPM |
| 1972 B. G. Loveless* | 1990 Robert Galvan, MS, RS | 2016 Gloria McNeil, RN BSN MED |
| 1973 Barnie A. Young* | 1991 Wm. F. Jackson, REHS* | *deceased |
| 1974 Ardis Gaither* | 1992 Charlie Norris* | |
| 1975 Herbert F. Hargis* | 1993 T. L. Edmonson, Jr.* | |

TPHA LIFE MEMBERS

- | | | |
|------------------------------|------------------------|----------------------------|
| Minnie Bailey, PhD | Exa Fay Hooten | Eduardo Sanchez, MD, MPH |
| Ned V. Brookes, PE | Robert MacLean, MD | David R. Smith, MD |
| Oran S. Buckner, Jr., PE, RS | Sam Marino | Kerfoot P. Walker, Jr., MD |
| Burl Cockrell, RS | Annie Lue Mitchell | Alice V. White, PhD |
| Gordon Green, MD, MPH | Laurance N. Nickey, MD | |