Welcome to the
TPHA 95th Annual Education Conference

Co-hosted by the San Antonio Metropolitan Health District, UTHealth, UTHealth School of Public Health in San Antonio, San Antonio Life Sciences Institute, Texas Department of State Health Services, Region 8

March 18-20, 2019
Henry B. Gonzalez Convention Center

CELEBRATE THE POWER OF PUBLIC HEALTH
Welcome to the Texas Public Health Association’s 95th Annual Education Conference! We are so glad you could join us as we celebrate the power of public health! Working in public health is demanding, which is why I have tried to focus this conference on celebration. I think we should acknowledge and celebrate the hard work we do and celebrate the difference we are making in the lives of Texans. I hope this conference serves as a showcase for the power of public health and I hope you’ll celebrate that power with me.

On Monday night, be sure to join us at the Grand Opening of Exhibits, Posters, and Silent Auction. In addition to talking with exhibitors and poster presenters (and bidding on some excellent auction items), you can have a slice of cake to help us celebrate our 95th annual conference!

On Tuesday, we offer multiple opportunities to burn the calories from that cake slice. We have an early morning health walk, where you can network with like-minded early birds. There are also two walking tour sessions that highlight some of the public health work that is going on in San Antonio. Of course, if you don’t feel up to walking, the schedule is packed with our public health colleagues sharing their recent projects, research, and outreach activities. And each of the sections will be hosting meetings before the day’s sessions get underway. Check out what your section is up to and how you can get involved.

On Wednesday, we hope you plan to stay through lunch because we are excited to have the President of the American Public Health Association, Dr. Pamela Aaltonen, speak about the power of evidence. As the conference draws to a close, I know you’ll be anxious to get back to your office and put some great new ideas into practice, but before you run off, join us to help plan next year’s celebration conference.

I’m really looking forward to this conference. I can’t wait to see the great presentations we have lined up, to talk to all of you, celebrate our achievements and the power of public health, and (of course) have a margarita on the River Walk!

Rachel
TPHA President
2018-2019
Things You Need to Know

Registration - Open all three days of the conference beginning Monday, March 18th at 7:00 am and will be located at the Henry B. Gonzalez Convention Center, near the escalators on the 3rd Floor. Enter the convention center from Market Street.

Continuing Education - Successful completion of this continuing education activity requires that you do the following:

- Complete registration and sign in sheet
- Attend entire educational activity
- Participate in education activities
- Complete the attendance sheet and evaluation by the end of the conference and prior to leaving the event

Exhibits, Poster Presentations and Silent Auction will be located in Room 302 A/B/C and Foyer

- **Monday, March 18th**
  - 5:15 pm-6:30 pm – Grand Opening
- **Tuesday, March 19th**
  - 10:30-11:00 am Break
  - 12:00 pm-1:15 pm Lunch with Exhibitors/Posters Open
  - 3:30-4:00 pm Break

Poster Displays - 3rd Floor Foyer
Original research of an empirical nature, conceptual or methodological issues or innovative techniques in a public health area.

Breakout Sessions and Mobile Workshops - This year choose from 24 breakout sessions and 2 mobile workshops

Health Walk - Please join other attendees for an early morning walk before the conference day begins at 6:30 am on Tuesday and Wednesday mornings. Meet at Springhill Suites Hotel Lobby (411 Bowie Street)

Silent Auction - TPHA members and participants in the conference have donated items to the silent auction. Please stop by the auction tables in the exhibit area to do some “shopping”. Bidding ends on Tuesday, March 19th at 5:15 pm. All items must be picked up at the registration desk no later than 11:00 am on Wednesday, March 20.

Fellows Project - Every year the TPHA Fellows coordinate a donation drive at our conference to support a local non-profit or community program. This year we will be hosting a children’s book drive to support two great programs with the San Antonio Public Library Foundation.

The Born to Read program promotes early childhood literacy development through distributing pre-K books to the community. Born to Read impacts children and families in Bexar County by encouraging parents and caregivers to read to children at the earliest stages of life.

The Literacy Caravan is a mobile classroom with spaces for story time, creative exploration, and motor skills development. Every kid receives a book when they visit the Literacy Caravan.

Information about both programs can be found on the foundation’s website: [https://www.saplf.org/](https://www.saplf.org/).

WiFi Services
WiFi Wireless network: Available in all public spaces (Lobby, most Pre-Function spaces and cafe locations). WiFi is available for purchase through Smart City.

Getting Around the Convention Center
The Henry B. González Convention Center has over 70 meeting locations in over 1.5 million sq ft of space. To ensure that you are able to find your way to your next event or session look for their strategically placed way-finding kiosk. Each kiosk will give you information about the facility, a floor map, the name of the event and how to get there. In addition, it will give you information about San Antonio attractions, airline information, and weather updates.
## Conference at a Glance

### Monday, March 18th

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
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<tbody>
<tr>
<td>7:00 am-5:00 pm</td>
<td>Registration Open  <a href="#">Ballroom Level Foyer</a></td>
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<tr>
<td>8:00 am-11:15 am</td>
<td>Student Sponsored Community Coalition <a href="#">Hackathon Room 301 B</a></td>
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<tr>
<td>8:00 am-11:00 am</td>
<td>Health Authority Workshop 2019  <a href="#">Room 303 A/B</a></td>
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<tr>
<td>9:00 am-11:00 am</td>
<td>Workshop 1  <a href="#">The Scrutinizer Challenge Room 301 A</a></td>
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<tr>
<td>9:00 am-11:00 am</td>
<td>Workshop 2  <a href="#">How to Leverage Your Data Using Data Science Room 301 C</a></td>
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<tr>
<td>11:30 am-12:30 pm</td>
<td>Governing Council Members’ Meeting  <a href="#">Room 305</a></td>
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<td>11:30 am-12:30 pm</td>
<td>Local Health Official Meeting  <a href="#">Room 303 A/B</a></td>
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<tr>
<td>1:00 pm-3:45 pm</td>
<td>Opening Plenary Session 1  <a href="#">Room 304 A/B/C</a></td>
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<tr>
<td>3:45 pm-4:00 pm</td>
<td>Stretch break</td>
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<tr>
<td>4:00 pm-5:00 pm</td>
<td>Plenary Session 2  <a href="#">Mental Health Disparities among Vulnerable Populations Room 304 A/B/C</a></td>
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<tr>
<td>5:15 pm-6:30 pm</td>
<td>Grand Opening of Exhibits, Posters &amp; Silent Auction  <a href="#">Foyer and Room 302 A/B/C</a></td>
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<tr>
<td>Free evening</td>
<td>Visit San Antonio on your own</td>
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### Tuesday, March 19th

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<tr>
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<td>8:00 am-8:45 am</td>
<td>Section Business Meetings  <a href="#">Rooms 303 A/B, Room 301 A, Room 301 B, Room 301 C</a></td>
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<tr>
<td>9:00 am-10:30 am</td>
<td>Plenary Session 3  <a href="#">Literacy in Health Room 304 A/B/C</a></td>
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<td>10:30 am-11:00 am</td>
<td>Break and Visit Exhibits and Posters  <a href="#">Foyer and Room 302 A/B/C</a></td>
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<td>10:30 am-12:00 pm</td>
<td>Breakout Session-Mobile OFFSITE Workshop #1  <a href="#">Walk ‘N Talk on the Mission Trail</a></td>
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<tr>
<td>11:00 am-12:00 pm</td>
<td>Breakout Sessions 1, 2, 3, and 4  <a href="#">Rooms 303 A/B, 301 A, 301 B, 301 C</a></td>
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<tr>
<td>12:00 pm-1:15 pm</td>
<td>Lunch with Exhibitors  <a href="#">Foyer and Room 302 A/B/C</a></td>
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<tr>
<td>12:00 pm-1:15 pm</td>
<td>Past Presidents and Fellows Luncheon (invitation only)  <a href="#">Room 305</a></td>
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<tr>
<td>1:15 pm-2:15 pm</td>
<td>Breakout Sessions 5, 6, 7, and 8  <a href="#">Rooms 303 A/B, 301 A, 301 B, 301 C</a></td>
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<tr>
<td>1:15 pm-2:15 pm</td>
<td>Breakout Session-Mobile OFFSITE Workshop #2  <a href="#">Hemisfair Park Tour</a></td>
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<tr>
<td>2:15 pm-2:30 pm</td>
<td>Session change/break</td>
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<tr>
<td>2:30 pm-3:30 pm</td>
<td>Breakout Sessions 9, 10, 11, and 12  <a href="#">Rooms 303 A/B, 301 A, 301 B, 301 C</a></td>
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<tr>
<td>3:30 pm-4:00 pm</td>
<td>Break and visit Exhibits and Posters  <a href="#">Foyer and Room 302 A/B/C</a></td>
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<tr>
<td>4:00 pm-5:00 pm</td>
<td>Breakout Sessions 13, 14, 15 and 16 (Includes Student Oral Presentation)  <a href="#">Room 303 A/B, Room 301 A, Room 301 B, Room 301 C</a></td>
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<tr>
<td>5:30 pm-6:00 pm</td>
<td>Executive Board Meeting (incoming)  <a href="#">Room 305</a></td>
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<td>Free evening</td>
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### Wednesday, March 20th

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<td>Registration Open-Continuing Education Paperwork turn-in, Pick up Silent Auction Items  <a href="#">Ballroom Level Foyer</a></td>
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<tr>
<td>9:00 am-10:00 am</td>
<td>Breakout Sessions 17, 18, 19 and 20  <a href="#">Rooms 303 A/B, 301 A, 301 B, 301 C</a></td>
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<tr>
<td>10:00 am-10:30 pm</td>
<td>Break</td>
</tr>
<tr>
<td>10:30 am-11:30 am</td>
<td>Breakout Sessions 21, 22, 23, and 24  <a href="#">Rooms 303 A/B, 301 A, 301 B, 301 C</a></td>
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<tr>
<td>11:45 am-1:45 pm</td>
<td>Closing Session Plenary 4 and Awards Luncheon  <a href="#">Room 225</a></td>
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<tr>
<td>2:15 pm-4:00 pm</td>
<td>2020 Program Planning Committee Meeting  <a href="#">Room 301 A</a></td>
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**96th Annual Education Conference Program Planning**

You are invited to join us for the 2020 Annual Education Conference Planning Committee Meeting on March 20th (Room 301A) following the Closing Plenary and Awards Luncheon. During this meeting we will set the theme and discuss new ideas for the 96th Annual Education Conference. Come be a part of it!
# Agenda

**Monday, March 18, 2019**

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<td>8:00 am-11:15 am</td>
<td><strong>Student Sponsored Community Coalition Hackathon</strong>, Melissa Oden, DHED, LMSW-IPR, MPH, CHES</td>
<td>Room 301 B</td>
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| 8:00 am-11:00 am | **Health Authority Workshop 2019**  
David Gruber, Moderator  
Allison N. Winnike, JD, Lillian Ringsdorf, MD, MPH, Philip Huang, MD, MPH, Ronald L. Cook, DO, MBA, FAACP, Katherine Wells, MPH, Carlos Plasencia, MD, MSPH | Room 303 A/B |
| 9:00 am-11:00 am | **Workshop 2 How to Leverage your Data Using Data Science**  
Jacquie Cheun, PhD | Room 301 C   |
| 11:30 am-12:30 pm | **TPHA Governing Council Members’ Meeting** | Room 305     |
| 11:30 am-12:30 pm | **Local Health Official Meeting with Commissioner of Health** | Room 303 A/B |
| **1:00 pm-3:45 pm** | **Opening Plenary 1**  
Welcome and Introductions  
Rachel Wiseman, MPH, TPHA President  
Colleen Bridger, MPH, PhD, San Antonio Metro Health District  
Barbara S. Taylor, MS, MD, UT Health San Antonio & Adjunct Faculty, UTH ealth School of Public Health in San Antonio  
Melissa A Valerio-Shewmaker, PhD, MPH, UTH ealth School of Public Health in San Antonio  
Kimberly Andrews Espy, PhD, University of Texas at San Antonio  
Lilian Ringsdorf, MD, MPH, DSHS, Region 8  
The Robert Wood Johnson Culture of Health Award: San Antonio’s Story-Panel, Colleen Bridger, MPH, PhD, Zan Gibbs, MPH, QMHA, and Ana Sandoval, MS | Room 304 A/B/C |
| **3:45 pm-4:00 pm** | **Stretch Break**                                                                             |              |
| **4:00 pm-5:00 pm** | **Hot Topic Plenary 2**  
Moderator: Rita Espinoza, MPH  
Mental health disparities among vulnerable populations, Jane E. Hamilton, PhD, MPH, LCSW - S | Room 304 A/B/C |
| **5:15 pm-6:30 pm** | **Grand Opening of Exhibits, Posters and Silent Auction**  
**Room 302 A/B/C and Foyer**  
Free evening: Visit San Antonio on your own |              |

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Meet at Springhill Suites Hotel Lobby (411 Bowie Street) |              |
| 7:00 am-5:00 pm | Registration Open                                                                             | Ballroom Level Foyer |
| 8:00 am-9:00 am | **Section Business Meetings**  
- Administration & Management-303 A/B  
- Aging & Public Health-303 A/B  
- Community Health Workers-303 A/B  
- Environmental & Consumer Health-301C  
- Epidemiology-301 C  
- Health Education-301 B  
- Oral Health-301 A  
- Public Health Nursing-301 A  
- Social Work 301 B  
- Student-301 B  
- Vision Care-301 A |              |
| **9:30 am-10:30 am** | **Plenary 3**  
Moderator: Carol Davis, MSPH, CPH  
Literacy in Health, Elizabeth Halff, MS, Viki Ash, MLIS, PhD, and Tara M. Childers, MS | Room 304 A/B/C |
| **10:30 am-11:00 am** | **Break and visit Exhibits, Posters and Silent Auction**  
**Room 302 A/B/C and Foyer** |              |
| **10:40 am-12:00 noon** | **MOBILE OFFSITE WORKSHOP 1**  
Walk ‘N Talk on the Mission Trail: Planning and Public Health in Action, led by Anayanse Garza |              |
| **11:00 am-12:00 pm** | **Breakout Sessions 1-4**  
**BREAKOUT 1**  
**Room 303 A/B**  
COMMUNITY PARTNERSHIPS FOR HEALTH IMPROVEMENT  
Moderator: Ashley Rodriguez, CCHW, CCHWI  
Austin’s Mayor’s Health and Fitness Council: Developing and Implementing a County-wide Program for Workplace and School Policy Change, Cristina Garcia, RDN, IBCLC and Sarah Seidel, DrPH  
Leveraging Coalitions to Improve the Community Health Improvement Process, Melissa Tung, MPH and Kelli Becerra, MEd, CHES |              |
## Agenda

### BREAKOUT 2  
**Room 301 A**  
**ENVIRONMENTAL HEALTH**  
*Moderator: Julia Butler, MPH, RS*

- Breaking new grounds to build a lead-free Waco, Vaidehi Shah, BDS, MPH and Kelly Craine
- Cyclosporiasis Outbreak at Lackland Air Force Base, TX, 2018, Ryan Gottfredson, DO, MPH and Mary Pawlak, MD, MPH

### BREAKOUT 3  
**Room 301 B**  
**ACCREDITATION**  
*Moderator: Kaye M. Reynolds, DrPH*

- Forming a Community-Based Coalition to Create a Healthier Community, Sara Mendez, MS and Heather R. Clark, DrPH

### BREAKOUT 4  
**Room 301 C**  
**TPHA: Our Organization and Impact,** Rachel Wiseman, MPH

12:00 pm-1:15 pm  
**Room 302 A/B/C and Foyer**  
Lunch with Exhibitors/Posters

12:00 pm-1:15 pm  
**Room 305**  
TPHA Past Presidents and Fellows Luncheon (invitation only)  
Hosted by Carol Davis, MSPH, CPH, Immediate Past President, TPHA

### MOBILE OFFSITE WORKSHOP 2

1:15 pm-2:15 pm Hemisfair Park Tour, led by Geoffrey S. Baldwin, CPRP

Participants will meet at the ground level entrance to the convention center on the Market Street. In 2009, the San Antonio City Council established the Hemisfair Park Area Redevelopment Corporation (HPARC), a local government organization appointed to manage and revitalize the Hemisfair area. HPARC is a 501(c)3 nonprofit local government corporation that was founded on seven principles that effectively guide all decisions in the redevelopment process of Hemisfair; connectivity, development, green space, balance, preservation, sustainability, and leadership.

### BREAKOUT 5  
**Room 303 A/B**  
**EPIDEMIOLOGY**  
*Moderator: Essi Havor MSN, RN, APHN-BC*

- Evaluation of Provider Report Mail-out for Increasing HPV Vaccine Administration, Lauren Hoffman, MPH
- Measuring Enhancements to Perinatal Hepatitis B Case Identification, Jess Cheng, MPH, CPH

### BREAKOUT 6  
**Room 301 A**  
**AGING**  
*Moderator: Bobby Schmidt, MED, RS*

- Reports of physical symptoms and sensations among gay and lesbian aging adults: Independent and joint effects, Ami R. Moore, PhD, MPH, CPH
- Applied health literacy training for health professions students working with older adults, Erin K. Carlson, DrPH, MPH

### BREAKOUT 7  
**Room 301 B**  
**HEALTH EDUCATION**  
*Moderator: Debra Flores, PhD*

- Assessing the Organizational Health Literacy in Hospitals in North Texas, Teresa Wagner, DrPH, MS, CPH, RD/LD, CHWI and Tracine (Tracy) Adams, BSN, RN
- Evaluating Health Literacy Needs to Construct Clinical Practice Framework and Policy Recommendations for Improved Hospital Interventions, Priscilla Kha

### BREAKOUT 8  
**Room 301 C**  
**ORAL HEALTH**  
*Moderator: Teresita Ladrilla, DMD, MPH*

- Impacts of Project Saving Smiles--A Spatial Analysis, Pankti Parmar, MPH, BDS
- Perceptions and Awareness of E-Cigarettes among South Texas Dentists, Patients, and Communities, Michael Thompson

### BREAKOUT 9  
**Room 303 A/B**  
**COMMUNITY HEALTH**  
*Moderator: Elvia Ledezma, MPH*

- Hearing the Voices of Texas CHWs Statewide - Border versus Non-Border Counties, Jacklyn Hecht, RN, MSN
- The Community Advocates Program: Addressing Social Needs in Underserved Populations with a Trained, Volunteer, Student Workforce, Ashley Rodriguez, CCHW, CCHWI
Agenda

BREAKOUT 10 ★ Room 301 A
ENVIRONMENTAL HEALTH RAPID FIRE
Moderator: Leslie Allsopp, MSN, MPH

Identifying the Determinants of Exposure to Cooking Related Airborne Pollutants, Employee Comfort and Respiratory symptoms in Mobile Food Units, Maximea Vigilant, MPH, DrPH

Assessment of Food Deserts in El Paso County, TX, and Loudoun County, VA, Amit U. Raysoni, PhD, MPH

Advancing Environmental Health Literacy: Developing interactive, hands-on science kits for use with community audiences, John Prochaska, DrPH, MPH

BREAKOUT 11 ★ Room 301 B
PUBLIC HEALTH NURSING
Moderator: Essi Havor MSN, RN, APHN-BC

The State of Public Health Nursing in Texas, Catherine Campbell, MPH and Matthew Turner, PhD, MPH

What do Asian American women think about breast and cervical cancer and cancer screening? Findings from Focus Groups, Jisook Ko, PhD

BREAKOUT 12 ★ Room 301 C
Public Health Leadership Skills Workshop, Melissa Oden, DHED, LMSW-IPR, MPH, CHES and Jeffrey J. Hatala, PhD

3:30 pm-4:00 pm
Break and visit Exhibits and Posters

4:00 pm-5:00 pm
Breakout Sessions 13-16

BREAKOUT 13 ★ Room 303 A/B
EPIDEMIOLOGY
Moderator: Yao Akpalu MB, ChB, MPH, CPH

Occurrence of Birth Defects in the Corpus Christi Area Compared with the Rest of South Texas, 2008-2014, Peter Langlois, PhD

Premature Mortality is Associated with its Social Determinants in Rural and Urban Areas of U.S. States, Catherine Hudson, MPH

BREAKOUT 14 ★ Room 301 A
ADMINISTRATION
Moderator: Jeff Hatala, PhD

TB Elimination in South Texas - A Three-Pronged Strategy, Yolanda Cantu, MPH

Improving the Quality of Tuberculosis Care at the Texas Center for Infectious Disease (TCID), Lisa Michelle DiAndreth, RN, MSN, MPH

BREAKOUT 15 ★ Room 301 B
HEALTH EDUCATION
Moderator: Debra Flores, PhD

Confessions of an Undergraduate Public Health Student: Impact of an Interdisciplinary Service-Learning Project, Giovani Pimentel-Galvan

Workplace Wellness: Evaluating Regional State Employee Health Promotion Program, Andrew Edward Gonzalez

BREAKOUT 16 ★ Room 301 C
STUDENT ORAL PRESENTATION
Moderator: Lisette K. Osborne, RN/BC, MSN, CHEP


MCH Workforce Development in HRSA Region VI: Multimodal MCH Training Program for Underserved and Rural Areas, Mollie Ewing, RN

Addressing multicultural patient needs from classroom to practice: Cross-cultural education in Texas Schools of Medicine, Dirk Wristers, BS

5:30 pm-6:00 pm Room 305
Executive Board Members’ Meeting

Free evening-Visit San Antonio on your own

Wednesday, March 20, 2019

6:30 am-7:00 am Health Walk
Meet at Springhill Suites Hotel Lobby (411 Bowie Street)

7:00 am-2:00 pm Ballroom Level Foyer
Registration Open and Continuing Education Paperwork Turn-In

9:00 am-10:00 am Breakout Sessions 17-20

BREAKOUT 17 ★ Room 303 A/B
EPIDEMIOLOGY
Moderator: Yao Akpalu MB, ChB, MPH, CPH

Salmonella Outbreak at a Food Establishment in Bexar County, 2018, Deborah Gonzalez, MS

An Outbreak of Norovirus Associated with a Dinner Banquet, April 2018, Elise Huebner, MS, CPH, CIC

BREAKOUT 18 ★ Room 301 A
COMMUNITY HEALTH WORKERS
Moderator: Ashley Rodriguez, CCHW, CCHWI

A Salud Breast Health Program for underserved women in Bexar County: cost-effectiveness, patient satisfaction, and mammography rates, Erin K. Carlson, DrPH, MPH
Agenda

La Historia Del Barrio: The Connection between Community Health Work and Qualitative Data, Nora Gonzalez, CHW and Alex Miller Mattingly, MPH

BREAKOUT 19
PUBLIC HEALTH NURSING
Moderator: Essi Havor MSN, RN, APHN-BC

A Story of Disseminated Tuberculosis and its Lessons, Terry Simmons, RN

Healthy Beats: A Local Effort to Prevent Congenital Syphilis in Bexar County, Jessica Del Toro

BREAKOUT 20
AGING
Moderator: Bobby Schmidt, MEd, RS

Factors Associated with Fall Risk and Risk Reduction Intervention in Older Population, Qjwei Li, MS

Preventing Liver Cancer in Our Booming and Aging Population, Delana Gonzalez, MPH and Anna Taranova, MD, MS

BREAKOUT 21
EPIDEMIOLOGY-RAPID FIRE
Moderator: Kim Rahebi

Is it Hantavirus or Not? Christa Cook, MPH, CIC

An Outbreak of Salmonella enterica in a Bexar County NICU, 2018, Cynthia Williams, MPH, CPH, CIC

Use of Community Assessment for Public Health Emergency Response (CASPERS) Method to Assess Influenza Vaccination and Activity in Brazos County, Texas in 2017-18, Yao Akpalu, MB, ChB, MPH, CPH

BREAKOUT 22
COMMUNITY HEALTH WORKERS
Moderator: Cara Hausler, MPH

Supporting Health Access for Women and Infants in Waller County Texas, Claire Jamison, MPH

Community Cares: A Community and Clinical Collaboration Addressing Health Disparities in East Texas Utilizing Community Health Worker Navigation, Joy Johnson, BS, CHES, TTS

BREAKOUT 23
HEALTH EDUCATION
Moderator: Debra Flores, PhD

Developing a Strategic Plan for an Evidence-Based Employee Wellness Program, Katherine Velasquez, PhD, RN; Dayana Rodriguez, MPH; and Andrew Edward Gonzalez

SA Access: An Interactive Health Insurance Literacy Toolkit, Ewelina Migut and Melanie Stone, MPH, MEd

BREAKOUT 24
ADMINISTRATION
Moderator: Moderator: Lisette K. Osborne, RN/BC, MSN, CHEP

Law Enforcement and Public Health Collaboration to Prevent and Prepare for Workplace Violence and to meet Interprofessional Practice Competencies, Cara Pennel, DrPH, MPH

Obesity Prevention Interventions in Texas, 2012-2017: A Scoping Review, Jeffrey J. Hatala, PhD

10:00 am-10:30 am
Session change/Stretch Break

10:30 am-11:30 am
Breakout Sessions 21-24

BREAKOUT 25
PUBLIC HEALTH ACTIONS
Moderator: Pamela Aaltonen, PhD, RN, Professor Emerita, Purdue University (Retired), President, American Public Health Association

Public Health Actions: The Power of Evidence, Pamela M. Aaltonen, PhD, RN, Professor Emerita, Purdue University (Retired), President, American Public Health Association

2:15 pm-4:00 pm Room 301 A
2020 Program Planning Committee Meeting

TPHA Section Business Meetings
Tuesday, March 19th from 8-9 am
You are invited to come and learn what TPHA Sections are doing and how you can help by becoming involved!
We will have representatives from each section of TPHA there to answer questions

Section Business Meeting and Locations:
- Administration & Management-303 A/B
- Aging & Public Health-303 A/B
- Community Health Worker-303 A/B
- Environmental & Consumer Health-301C
- Epidemiology-301 C
- Health Education-301 B
- Oral Health-301 A
- Public Health Nursing-301 A
- Social Work 301 B
- Student-301 B
- Vision Care-301 A
You’re why.

Whether we’re educating the next generation of caregivers, discovering new ways to cure diseases or providing our patients with the most advanced care available, we’re improving health care for you and everyone in South Texas.

We’re how. You’re why.

YouAreWhy.org
Conference Exhibitors

CDP, Inc.
Mike Peth, Director
mike.peth@cdpehs.com

Since 1981, CDP has implemented national, statewide, district and county-level public health data systems. Our experience with Certified EHR, Environmental Health, and WIC/WIC EBT presents tremendous financial opportunities for our clients through our integrated approach. CDP understands government processes and regulations in the public healthcare industry, having developed customized solutions to help agencies meet federal and state guidelines as well as electronic business requirements.

HHSC-Case
Management for Children and Pregnant Women
Jennifer Borja-Smith, Case Management Program Consultant
jennifer.borja-smith@hhsc.state.tx.us

Provide case management to eligible Medicaid clients through 20 years of age with a medical condition and high-risk pregnant women.

Institute for Health Promotion Research (IHPR)/ UT Health San Antonio
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The Institute for Health Promotion Research (IHPR) based at UT Health San Antonio investigates the causes of and solutions to the unequal impact of cancer, chronic disease and obesity among Latinos in San Antonio, South Texas and the nation. Come learn about the behavioral health interventions, projects and programs we lead as well as internship opportunities available in health communication, cancer control research from primary prevention to survivorship, and prevention of tobacco use, obesity and diabetes.

Patagonia Health Inc.
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Patagonia Health Inc. is a healthcare software supplier that has built a cloud and apps-based software solution. The solution includes an integrated, federally-certified, Electronic Health Record (EHR), Practice Management (PM) and Billing software. The company’s mission is to solve two major barriers to EHR adoption—usability and cost—and address customers’ number one problem: billing. Patagonia Health’s one-of-a-kind apps-based system represents a paradigm shift in the EHR software industry, and its highly intelligent solution uses sophisticated technology that is extremely easy to use. Innovative and unique apps provide timely data for organizations to improve workflow, streamline operations and take their organizations to the next level. For more information, visit www.patagoniahealth.com or email info@patagoniahealth.com.

Rural & Community Health/ West Texas AHEC
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West Texas AHEC is a resource for students and other career seekers interested in health careers and who want to improve the health of their communities.

Our mission is to improve the health of communities by developing the health care provider workforce. In each region, the actual work to accomplish this may vary, depending on that area’s needs.

In general, the AHECs focus on these goals
• Promoting health careers to young people
• Assisting current health professions students to complete training experiences in rural and other underserved communities
• Supporting community-based health care providers and organizations with continuing education, assistance with recruiting, and other health systems-based activities
• Promoting healthy living

San Antonio Life Sciences Institute
Ana Laredo, Research Program Coordinator
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Funded by the Texas Legislature in 2003, the San Antonio Life Sciences Institute (SALSI) has one mission: to conquer the challenges facing healthcare in Texas and the nation. A cooperative partnership between UT Health San Antonio and The University of Texas at San Antonio, SALSI is built upon multiple joint research projects, a portfolio of research education, and a robust research infrastructure. By providing forums such as conferences, workshops, and
Conference Exhibitors

talks, our goal is for local and regional researchers to establish new connections and pathways for collaborative research. Research Areas: Cancer, Brain Health, Regenerative Medicine, Infectious Diseases, Big Data and Population Health, Health Disparities, and Military Health. http://www.utsalsi.org

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The DSHS Promotor(a)/Community Health Worker (CHW) Training and Certification Program processes applications for certifications for CHWs. It also helps enhance the CHW workforce through continuing education and collaboration with employers.

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TPHA welcomes you to the TPHA AEC 2019!

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The UTMB Public Health Program will market their program, including the MPH and PhDs.

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a. Successful completion of this continuing education activity requires:
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b. Commercial Support
   This educational activity received no commercial support.

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   The speakers and planning committee for this event have disclosed no financial interests.

d. Non-Endorsement Statement
   Accredited status does not imply endorsement of any commercial products or services by the Department of State Health Services, Continuing Education Service; Texas Medical Association; or American Nurse Credentialing Center.

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f. Expiration for awarding contact hours/credits
   Complete the attendance sheet and evaluation by the end of the conference and prior to leaving the event.
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Yesenia Wolfrum

**Good and Services**
- Charissa Haun, Program Typesetter
- Osaro Mgbere, Abstracts Typesetter
- City of San Antonio
- Texas Department of State Health Services Division for Regional and Local Health Operations

**Continuing Education**
- Texas Department of State Health Services Continuing Education Service, Office of Academic Linkages
- Paige Horton
- Laura Wells
- Nancy M. Crider
- Adriana Flores, DSHS Promotor(a)/CHW Training & Certification Program

A special note of thanks to the Texas Department of State Health Services, Division for Regional and Local Health Operations for being our continuing education sponsor, to the many volunteers who reviewed our conference abstracts for our breakout session presentations and posters and to our conference presenters. Thank you!
Funded by the Texas Legislature in 2003, the San Antonio Life Sciences Institute (SALSI) has one mission: to conquer the challenges facing healthcare in Texas and the nation.

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Use of Community Assessment for Public Health Emergency Response (CASPER) Method to Assess Influenza Vaccination and Activity in Brazos County, Texas in 2017-18, Yao Akpalu, MB.ChB, MPH, Kahler Stone, MPH, Jennifer Horney, PhD, MPH

**Background:** There was a ten-fold increase in influenza activity in Brazos County in the early 2017/18 season compared to the same period in the previous year. Presently, there are no publications on seasonal influenza or vaccination in Brazos County. The recommended flu vaccination coverage in the U.S is 70%. However, vaccination coverage in the US and the state of Texas, in 2016/17 flu season were 46.8% and 43.5% respectively. Vaccination coverage in Brazos County was not known for any year. Objectives: Identify the determinants of the severe flu season. Assess vaccination problems and the knowledge, attitude and practices of the population. Evaluate influenza vaccination coverage in the county.

**Methods:** Thirty census blocks were selected using the CDC CASPER toolkit. Seven households were selected from each census block for interviews. The questionnaire covered source of health information, cause, transmission/prevention of influenza, flu illness/vaccinations in past 5 years, and perceptions, problems and objections about flu vaccination. Data analysis was in EpiInfoTM 7.2.

**Results:** Two-hundred and seven households completed the survey on March 2-3, 2018. 20.4% of respondents had ILI/Flu in December 2017. 50% took the flu vaccination in 2017 and 54% of parents vaccinated their children less than 18 years. Majority (76%) of respondents had good knowledge of the transmission/prevention of influenza. More than 70% had no objections to the vaccine nor difficulties in accessing it. Vaccination difficulties included lack of insurance, costs, and absence of vaccination centers. 18% of respondents said they had no time for the vaccination, and 9% said the vaccine was not effective. 52% of the unvaccinated said they would take the vaccine if it were free.

**Conclusions:** Apathy and misconceptions about the flu vaccine were major factors for the low vaccination coverage and the severity of ILI/Flu in Brazos County in the 2017/18 season.

The State of Public Health Nursing in Texas, Catherine Campbell, MPH, Matthew Turner, PhD, MPH, Pamela Lauer, MPH

**Background:** In 2016, the National Association of County & City Health Officials found that nurses make up approximately 20% of the local health department workforce, and 94% of local health departments employ registered nurses. Yet it is difficult to recruit and retain nurses to positions in public health, which could be exacerbated by the continuing nursing shortage faced by Texas. In 2017, 5,119 (2.2%) registered nurses in Texas reported a primary specialty of community/public health.

**Methods:** Nursing licensure data will be used to describe demographic, educational, and practice characteristics of public health nurses in Texas. The results of the 2017 Texas Governmental Public Health Nurse Staffing Study will be used to describe vacancy and turnover, hiring practices, and issues in recruiting and retaining public health nurses. Data will also be considered by the geographic distribution of nurses.

**Results:** This analysis will describe characteristics and trends in demographics of Texas’ public health nursing workforce. It will also identify geographic disparities, difficulties in recruitment and retention, and unique services provided by public health nurses.

**Conclusions:** Public health nurses are an integral part of the public health workforce. It is important to understand and address issues with public health nurse staffing in order to ensure the health of the state population. Healthcare and workforce planners can use the results of this analysis to direct efforts toward building a more robust workforce in Texas.

TB Elimination in South Texas - A Three Pronged Strategy, Yolanda Cantu, MPH, Tommy Camden, MS, Norma Santos, BS

**Background:** After pursuing the goal of tuberculosis (TB) elimination in the United States for close to 30 years, progress in the US has leveled off. The national rate remains well above the elimination threshold while the Texas TB
rate continues to be almost twice as high as the national rate. Experts agree that TB elimination will only be achieved through increased testing of high-risk groups and treatment of latent tuberculosis infection (LTBI).

**Methods:** This session will describe activities and treatment outcomes associated with an innovative TB elimination effort taking place in south Texas that scaled up the following activities: 1) targeted testing of high-risk groups, 2) engagement and training of clinics and their primary care providers to identify, test and successfully treat their patients; and, 3) emphasis on use of short-course regimens by physicians.

**Results:** Though October 2017, Over 12,000 at-risk individuals IGRA tested. Positive IGRA Screening Rate of 10% 42% of those diagnosed with LTBI accepted treatment 87% Completed treatment.

**Conclusions:** There are significant challenges associated with scaling up and maintaining efforts to eliminate TB in both public and non-public health settings. These challenges and continued opportunities will be described and discussed.

**A Su Salud Breast Health Program for Underserved Women in Bexar County: Cost-Effectiveness, Patient Satisfaction, and Mammography Rates**, Erin Carlson, DrPH, Yan Li, PhD, Denise A. Hernandez, MPH, Mariluz Martinez, BS, Leah Meraz, MPA, Roberto Villarreal, MD, MPH

**Background:** A Su Salud Breast Health Program, by University Health System in San Antonio, Texas, employed patient navigators to provide comprehensive breast cancer screening to 2,100 underserved Hispanic women aged 40 years and older.

**Methods:** Mixed-methods were used to evaluate the impact of the program regarding cost-effectiveness and participant satisfaction. Data were collected from 2014 to 2016. A validated microsimulation model of breast cancer, incorporating biological, clinical, epidemiological and program-specific data, was used to estimate program cost-effectiveness and long-term outcomes for program participants and non-participants. The performance of the intervention was compared to no intervention and measured using the incremental cost-effectiveness ratio (ICER). Program costs were assessed relative to benefits patients derived from program services. Likert scale patient satisfaction surveys (n=1,175; response rate 56%), and five focus groups of program participants, three in Spanish and two in English (n=31), evaluated participant satisfaction, knowledge, attitudes and behaviors about breast cancer screening. Focus groups were recorded, transcribed and coded for themes and sub-themes using NVivo11 software for qualitative analysis.

**Results:** Cost-effectiveness analysis found that A Su Salud: 1) increased the mammography screening rate by 20% in the target population; 2) could increase life expectancy by 0.71 year; 3) was highly cost-effective with an incremental cost-effectiveness ratio of $3,120 per quality-adjusted life year (QALY) compared to no intervention (under $50,000/QALY is cost-effective). Seventy-percent (70%) of respondents reported they strongly agreed they were satisfied with the program. Focus group data revealed participants reported positive experiences with the program, increased breast health knowledge, reduced fear of mammography, and increased intentions to follow screening guidelines.

**Conclusions:** The three-year multi-level, community-based patient navigation program was highly cost-effective, increased mammography screening rates, and improved reported knowledge and behaviors of breast health within the target population.


**Background:** Hepatitis B (Hep B) is an infectious disease that can be passed from mother to child at delivery and may lead to liver disease, liver cancer, and shortened life expectancy. The Texas Perinatal Hepatitis B Prevention Program (PHBPP) identifies about 55% of the CDC-estimated infants who are born to HepB surface antigen positive (HepB+) mothers each year. To increase the percentage of infants identified, PHBPP implemented a novel identification method using birth certificate data.

**Methods:** Monthly, a Vital Statistics file of all Texas births is provided to PHBPP. Infants whose birth records indicate HepB+ infection in the mother but who are not in the PHBPP database are sent to local health departments for follow-up. The viability of using this method for identifying exposed infants (i.e. Match Process) is discussed in relation to the accuracy of birth records (i.e. Reverse Match Process).

**Results:** In 2017, 298 HepB+ mother-infant pairs were identified for follow-up through the Match Process; 164 (55%) were confirmed to be exposed infants, representing 28% of all infants identified by PHBPP in 2017. Remaining mother-infant pairs either have not been investigated or were incorrectly identified as HepB+. Results are preliminary. The
Reverse Match process calculates the percentage of exposed infants who could have been identified via a birth record. When comparing the infants in the 2017 PHBPP cohort (i.e. infants born to mothers with confirmed infection) to Vital Statistics birth records, 35% had the HepB status of the mother correctly indicated as HepB+ on the birth record.

**Conclusions:** The birth record match contributed to identifying an additional 164 infants for enrollment in the PHBPP, coming closer to the CDC goal for identification of exposed infants. Efforts to assess and improve the matching process should continue.

**An Outbreak of Norovirus Associated with a Dinner Banquet, April 2018,** Christa Cook, MPH, Nicole Evert, MPH, Christa Cook, MPH

**Background:** On May 2, 2018 the Williamson County and Cities Health District (WCCHD) received a report that many attendees experienced gastrointestinal issues after eating at a catered banquet from restaurant A on April 30th. In coordination with the Environmental Services Division (EHS), the Disease Control and Prevention Division (DCP) initiated an investigation to define the extent of the outbreak, identify the causative agent, mode of transmission, source of infection, and to implement control measures.

**Methods:** DCP interviewed all cases that attended the banquet and contacted providers that ordered stool tests to obtain pathogen results. EHS closed the restaurant for a deep cleaning and interviewed restaurant employees about recent illnesses. DCP analyzed interview answers to describe age, gender, symptoms, and incubation of ill. DCP calculated relative risks, confidence intervals, and p-values to identify any significant associations between food/drink consumption and illness.

**Results:** A total of 242 people attended the banquet with an 85% interview response rate. The predominant symptoms reported included nausea, diarrhea, vomiting, and abdominal cramps. Twenty-eight (28) cases sought medical care and two of three stool samples collected were positive for norovirus. Guacamole, pico de gallo, chicken fajita, lettuce, iced tea, and salsa were found to be significantly associated with risk of illness development based on their relative risk.

**Conclusions:** Attendees to a catered banquet experienced an outbreak of norovirus, in which 121 attendees became ill with vomiting and/or diarrhea between 6 and 70 hours after eating at the banquet. Two of the ill banquet attendees and one individual who ate at restaurant A were positive for norovirus. Based on the employee interviews, one or more food items were likely prepared by someone with norovirus who was asymptomatically shedding the virus. Poor hand hygiene at restaurant A may have contributed to the spread of norovirus at the banquet.

**Improving the Quality of Tuberculosis Care at the Texas Center for Infectious Disease (TCID),** Lisa DiAndreth, RN, MSN, MPH, Yolanda Cantu, MPH

**Background:** In 2016 there were 9,272 cases of TB reported in the United States, the lowest number of TB cases on record with an overall TB case rate of 2.9 cases per 100,000 persons. In 2017, 1,127 cases of tuberculosis (TB) were reported in Texas, a rate of 4.5 per 100,000 persons - almost double the national rate. A major barrier to elimination of TB in the United States is the pervasive perception that TB is a disease of the past. TCID is a 75-bed hospital that admits an average of 77 patients annually with an average length of stay of 150 days. Over 85% of patients are uninsured and admitted with significant TB co-morbidities, drug resistance, or court-ordered to receive treatment.

**Methods:** Since early 2018 in its role as a performing provider in the Texas 1115 Medicaid Healthcare Transformation Waiver, TCID has been implementing 1) standardized measures to assess the quality of care it provides to patients with TB and how that care impacts patient outcomes in the areas of physical and behavioral health functioning; and, 2) processes to assess how well TCID transitions patients to the community and continuation of care in Local Health Departments.

**Results:** Health Department satisfaction with transition of care increased after process changes were implemented. TCID expects to see improved patient outcomes as a result of improved care coordination and integration of acute care and public health sectors. This presentation/poster will provide data on patient outcomes and discuss successes and challenges associated with the transition of patients to the community and the care of Local Health Departments and describe approaches used to engage both patients and staff.

**Conclusions:** There are significant challenges as well as opportunities associated with implementing processes to improve the quality of care to TB patients in a specialized hospital setting.
Is it Hantavirus or Not?, Nicole Evert, MS

Background: Hantavirus is a rodent-borne zoonotic disease caused by viruses of the genus Hantavirus. Infection with these viruses can cause severe respiratory illness with a 38% mortality rate. Transmission occurs when people breathe in aerosolized rodent urine, droppings or saliva. Hantavirus is endemic to the United States, with Texas reporting 42 cases since reporting began in 1995. Historically, these cases have been reported from the western and southeastern parts of the state with no cases reporting exposure in central Texas.

Methods: On May 24th, 2018, the Williamson County and Cities Health District received a call from a resident reporting that she had hantavirus. Medical records were reviewed to obtain clinical information. The suspected case was interviewed to identify risk factors for hantavirus exposure. Specimens were tested by IgM and IgG enzyme-linked immunosorbent assay (ELISA) at a commercial lab and the Texas Department of State Health Services (DSHS) Laboratory. The suspected site of exposure was inspected by staff from Disease Control and Prevention and Environmental Health Services. The suspected case was hospitalized in February with symptoms consistent with HPS.

Results: The suspected case was found to be positive for hantavirus IgG and negative for IgM at both the commercial and DSHS laboratories. The suspected case had not travelled outside of the central Texas area in years but reported seeing evidence of rodent activity at her worksite in the months prior to her symptom onset. Inspection of the worksite found evidence of rodents, including droppings, potential tufts of hair and gnaw markings on walls. While this suspected case of hantavirus disease, did not meet case definition for reporting purposes, her test results and clinical presentation suggest a past infection with hantavirus.

Conclusions: This case illustrates the need to increase provider and public awareness about the risk for hantavirus in Williamson County and methods to mitigate risk.

Austin’s Mayor’s Health & Fitness Council: Developing & Implementing a County-wide Program for Workplace and School Policy Change, Cristina Garcia, BS, Sarah Seidel, DrPH, Philip Huang, MD, MPH

Background: Over 58% of Austin/Travis County residents are overweight or obese, 10% have been diagnosed with diabetes, and 17% report no leisure-time physical activity. The Mayor’s Health in Fitness Council (MHFC), originally launched in 2004, revamped its workplace partner certification program in 2016 to increase the number of partner organizations certified as healthy workplaces and to expand the program to include local schools.

Methods: Austin Public Health, in coordination with the MHFC Board, updated the MHFC Partner Certification Application to reflect four workplace policy change areas: tobacco-free, mother-friendly, nutrition and healthy eating, and physical activity promotion. Scoring rubrics for the four workplace wellness policies and practices were devised, and benchmarks for Bronze, Silver, and Gold level certification were determined. Additionally, open-ended questions for innovative workplace practices or policy changes were included for workplaces applying for the Mayor’s Healthiest Workplace Award Program. Schools applying to be certified as an MHFC Exemplary School completed a Coordinated School Health survey covering four required areas of school wellness policy and practice, health education, physical education and physical activity, nutrition, and community involvement. Additionally, schools applying to the Mayor’s Healthiest School Award Program answered open-ended questions for innovative health events and initiatives. During the application period, the MHFC Program Coordinator provided education and assistance to all workplaces and schools on policy implementation. Data from online applications were analyzed to determine workplaces’ partner certification level, exemplary schools, and the healthiest workplaces and schools.

Results: Forty-four workplaces in Austin were certified as of 2018, with a total reach of over 95,000 employees. Eighty-seven schools from three school districts were certified as exemplary in 2018, impacting over 90,000 elementary and middle schools students.

Conclusions: Workplaces and schools are key partners in health promotion. MHFCs coordinate lasting and far-reaching policy changes towards preventing tobacco use and promoting breastfeeding, healthy eating, and physical activity.

Preventing Liver Cancer in Our Booming and Aging Population, Delana Gonzales, MPH, Aubrey McCracken, MS, Andrew McCracken, MS, Anna Taranova, MD, MS, Roberto Villarreal, MD, MPH

Background: Despite the availability of a cure, Hepatitis C Virus (HCV) remains a worldwide public health epidemic largely due to systemic barriers to screening and treatment. Infection with HCV is one of the most common risk factors for developing Hepatocellular Carcinoma (HCC), a primary malignancy of the liver. People born between 1945 and
1965, referred to as baby boomers, account for 75% of all patients with HCV. The prevalence of HCC in South Texas, including University Health System baby boomers, is more than twice that of the nation. The Hepatitis Viral Infection and Systematic Treatment Alliance (HepVISTA) program, aims to prevent HCC by focusing on this disparity through expansion of HCV screening efforts, comprehensive patient and provider education, and tailored navigation services. **Methods:** HepVISTA uses a two-prong approach that includes education of patients and providers and changes to the internal business practices. Bilingual billing inserts with HCV awareness messages are mailed to patients; providers and staff at outpatient clinics receive HCV education that addresses best practices for screening uptake, screening recommendations, and clinic screening outcomes. To improve HCV screening, an automatic laboratory order initiates HCV testing for eligible patients at routine appointments by identifying baby boomers not previously screened or diagnosed with HCV. Newly diagnosed chronic HCV patients receive culturally tailored education and are linked to treatment by patient navigators. **Results:** HepVISTA has reached 105,000 community members with information on HCV, educated 307 staff and providers across University Health System, and counseled 395 patients. Moreover, HepVISTA screened 5,871 baby boomers and linked 272 at-risk patients to treatment thus preventing the potential development of end stage liver disease and HCC. **Conclusions:** Education, birth cohort screening, and navigation to treatment will likely reduced lifetime cases of advanced liver disease and ultimately provide a cost-effective approach to preventing HCC.

**Workplace Wellness: Evaluating Regional State Employee Health Promotion Program,** Andrew Gonzalez, M.Ed (c), Dayana Rodriguez, MPH/MBA (c), Katherine Velasquez, BSN

**Background:** The Centers for Disease Control and Prevention estimates only 20% of U.S. adults meet daily recommended physical activity levels. Stress levels, poor nutrition, and sedentary lifestyles increase the strain on employee health. Workplace wellness programs can reduce medical spending, increase work productivity, and improve overall employee health. The purpose of this study is to evaluate the effectiveness of workplace wellness efforts for the Department of State Health Services Public Health Region 8 staff. **Methods:** Wellness staff used behavior change theory, biennial needs assessment, and pre- and post-surveys to design and evaluate wellness initiatives to increase physical activity, nutrition, and mindfulness. Pre- and post-surveys measured current behaviors, readiness for change, social support, self-efficacy, and perceived benefits and barriers. Initiatives included lunch and learns, one-page newsletters, a family fun-run, one on one coaching, and a 6-week challenge, where participants earned colored paper sneakers for engaging in specific exercise, nutrition, and coaching behaviors. The sneakers were posted along the walls as cues to action and to increase motivation and self-efficacy. **Results:** Participation rates in wellness initiatives changed over the intervention period. Although only 30.5% of employees actively participated in the challenge, post-survey respondents noted improved physical activity and nutritional behavior as a result of the wellness initiatives during this period. Additionally, perceived barriers decreased more, specifically for lack of social support and knowledge, while perceived benefits increased. **Conclusions:** Findings suggest frequent behavioral reinforcement and targeting perceived barriers will aid participation rates in workplace wellness programs. Pre- and post-surveys are efficient tools for measuring perceived barriers to participation. Program planning prior to implementation of wellness initiatives is essential. Finally, improving social support in the workplace, providing education, and promoting initiatives can assist in motivating employees to participate in programs and change health behavior.

**Salmonella Outbreak at a Food Establishment in Bexar County, 2018,** Deborah Gonzalez, MS, Rita Espinoza, MPH, Christina Carmona, MPH, CIC, CHES, Kerris Sease, MPH, Andrea Valadez, BA, Anita Kurian, MBBS, MPH, DrPH

**Background:** In September 2018, the San Antonio Metropolitan Health District received reports of a gastrointestinal illness from patrons of a local food establishment. An epidemiological investigation was initiated to further categorize the extent of the illness and find the source of exposure. **Methods:** An epidemiological investigation was conducted from September 5-14, 2018 on individuals reporting illness after eating or working at the restaurant. Metro Health, Food & Environmental Health Program conducted restaurant inspections. Individuals were interviewed using a standard questionnaire. Data entry, analysis, and descriptive statistics were performed using Microsoft Excel.
**Results:** The investigation identified 394 ill individuals. In total, 381 individuals met case definition and were included in the analysis. Eight cases were employees of the restaurant. Ninety-one percent of the individuals were residents of Bexar County. Reported symptom onset ranged from August 30-September 6, 2018. Symptom onset ranged from 12 hours to 5 days after eating or working at the food establishment. Illness duration lasted from 1-10 days, with an average of 5 days. Cases ranged in age between 2-88 years, with a median age of 38 years; 56% were female. Fifty-five individuals had laboratory evidence of Salmonella, including four restaurant employees. Fourteen people were hospitalized. Currently, 20 specimens have been identified by pulsed-field gel electrophoresis (PFGE) as Salmonella enteritidis.

**Conclusions:** Findings are consistent with a Salmonella foodborne illness outbreak. Based on interviews, no single food item was identified as the source of the outbreak. PFGE results for the remaining Salmonella specimens are currently pending and further analyses will be conducted and presented at the conference. Since employees of the restaurant were ill and identified to have Salmonella, it is likely the outbreak was initiated by a lack of proper employee hand hygiene. This highlights the importance of proper sanitation among restaurant staff and the implementation of policies to exclude sick workers.

**Obesity Prevention Interventions in Texas, 2012-2017: A Scoping Review,** Jeff Hatala, PhD, Margaret J. Foster, MS, MPH

**Background:** Obesity is a leading public health problem in Texas. Numerous agencies, organizations and academic institutions in the state have a compelling interest in obesity prevention and expend significant resources to improve health outcomes related to obesity. From 2012 to 2017, the obesity rate has risen from 29.2% to 33% with a drop from 2016-2017. With this overall increase with a dip in the rate recently, it is difficult to see how and why.

**Methods:** To understand the state of obesity prevention in Texas, the authors are completing a scoping review by examining obesity prevention intervention research published from 2012-2017 to understand the behavioral, environmental and policy interventions that has been identified as effective in reducing BMI, increased physical activity levels and/or increasing fruit and vegetable intake.

**Results:** We will report what populations (gender, age, race/ethnicity, SES status), geographies (city/county/region, urban/rural) have been addressed as well as structural elements of the intervention, such as length of time and funding, and policy implications.

**Conclusions:** Future research involves examining new risk factors associated with obesity as well as clinical interventions. We plan to use this study as a foundation for a database about obesity prevention activities in the state. We hope this information can be used to inform legislature about the need for specific obesity prevention policy to support intervention efforts.

**Hearing the Voices of Texas CHWs Statewide - Border versus Non-Border Counties,** Jacklyn Hecht, RN, MSN, Miyong T. Kim, RN, PhD, FAAN, Beatrice Smith, MPA, Brett Spencer, Ya-Ching Huang, MSN, RN, Paige Menking, MPA

**Background:** Community Health Workers (CHWs) play a crucial role in facilitating access to health and social services to underserved communities. Findings are presented from sub analyses of an ongoing work force force analysis in order to elucidate characteristics, job satisfaction, and unmet needs of CHWs who reside in border areas of Texas.

**Methods:** A statewide online survey was conducted in 2018 among currently certified CHWs in Texas; 1809 responded (42%). Independent t-tests, Chi-square and descriptive analyses were used to compare differences in characteristics of CHWs between border and non-border areas.

**Results:** CHWs living in border counties (15.8%) were older than CHWs living elsewhere (mean age = 47.9 vs. 46.2 years; p=.02). Both groups had similar rates of becoming a certified CHW by completing a training course (54.8% border; 52.0% non-border). CHWs were categorized into 3 work categories; however, there were no main differences among them. The following results pertain to those currently working as paid CHWs. CHWs in border counties were more likely to speak Spanish and serve clients who are women, ages 24-64 years, and live in rural areas. They were also more likely to receive less than $14 as an hourly wage; yet reported higher satisfaction with their current position, compared to those living elsewhere (p<.001). Regarding future work, 59% of CHWs on the border see themselves as continuing to work as a CHW in the next 5 years, compared to 42.1% (non-border). When asked about needs for continuing education, CHWs in border counties identified Health Promotion as the topic that would be most helpful,
while CHWs living elsewhere identified Case Management.

Conclusions: CHWs in border areas appear to have different needs than those living in other areas, and additional research is needed to further support their unique requirements.

Healthy Beats: A Local Effort to Prevent Congenital Syphilis in Bexar County, Roxanne Hickman, MPH, Jessica Del Toro, BS, Sian Elmore, BS, Anita Kurian, MBBS, DrPH

Introduction: In 2016, the rate of congenital syphilis in Bexar County was 46.1 per 100,000 live births, which was approximately 2.5 times higher than the Texas congenital syphilis rate of 17.4 per 100,000 live births. The Healthy Beats program was formulated at San Antonio Metropolitan Health District (SAMHD) in October, 2013 to address the increasing rates of congenital syphilis in Bexar County by expanding the case management to pregnant women presenting to the STD clinic at SAMHD.

Methods: Healthy Beats enrolls pregnant women presenting to the STD clinic at SAMHD and community outreach events into case management services to ensure syphilis screening occurs at recommended intervals, especially at the third trimester. The program also ensures that the treatment is completed and a six month follow-up test (from their last treatment date) for all pregnant women diagnosed with primary and secondary syphilis is conducted to verify response to treatment or possible re-infection.

Results: During October 1, 2016 to August 31, 2017, the Healthy Beats program was offered to 188 pregnant women presenting to the STD clinic at SAMHD or community outreach events. Of the 188 pregnant women, 155 (82%) consented to be enrolled in the program. Of the 155 pregnant women enrolled in the program, 59 (38%) were diagnosed with syphilis during their pregnancy. Of the 59 pregnant women diagnosed with syphilis, 57 (97%) were adequately treated. Additionally, of the 59 pregnant women diagnosed with syphilis during pregnancy, 47 (80%) received their third trimester test. At this time SAMHD is working to produce data for the October 2017-August 2018 demonstration year. This data will be finalized before the conference.

Conclusions: Although Bexar County has taken steps to address the public health problem of congenital syphilis, it is still evident that much more needs to be done to address this important issue.

Evaluation of Provider Report Mail-out for Increasing HPV Vaccine Administration, Lauren Hoffman, MPH, Jessica Jupe, MPH, Mark Ritter, MHA, Lucille Palenapa, MS

Background: Human papillomavirus (HPV) is the cause of more than 3,500 cancers in Texas and nearly 40,000 cancers in the U.S. every year. Vaccines to protect against HPV infection have been available since 2005, but only 40% of Texas adolescents are vaccinated according to the Advisory Committee on Immunization Practices (ACIP) recommendation.

Methods: Beginning in 2015, the Texas Department of State Health Services (DSHS) Immunization Unit began creating and distributing a report informing providers of their utilization of HPV vaccine provided through the Texas Vaccines for Children (TVFC) program. The report utilizes a ratio measurement comparing doses of HPV to Tdap (Tetanus-diphtheria-acellular pertussis) vaccine usage though the TVFC program. Tdap and HPV are both recommended at age 11 by ACIP. A repeated measures Analysis of Variance (ANOVA) statistical test was applied to the ratio data to evaluate the impact of the report on TVFC providers’ usage of HPV vaccine over time.

Results: Since 2015, 4,072 providers have been enrolled in the TVFC program; from January, 2015 through August, 2018 over 20,000 reports were sent to TVFC providers on a semiannual basis. The HPV to Tdap usage ratio increased significantly ($p<0.001$) from 1.70 in 2014 (baseline measurement) to 2.08 in 2018. TVFC sites enrolled through all five years saw the greatest mean increase in HPV to Tdap ratio measurement.

Conclusions: HPV to Tdap ratios did increase over time, with sites enrolled in the TVFC program the longest experiencing the greatest increase. This is consistent with other sources (Texas Immunization Registry, ImmTrac2, and the National Immunization Survey-Teen) that indicate children seeing TVFC providers are more likely to receive the HPV vaccine. The provider report is one tool DSHS offers TVFC providers to increase vaccination coverage across the state.
Premature Mortality is Associated with its Social Determinants in Rural and Urban Areas of U.S. States, Cathy Hudson, MPH, Gordon Gong, MD, MS, Scott Phillips, MS, Debra Curti, M.Ed, Miguel Carrasco, BA, Billy U. Philips, Jr., PhD, MPH

**Background:** Premature death (under 75 years of age) rate in rural and urban areas and its social determinants of U.S. states have not been investigated previously. Our study ranks U.S. states according to premature death and its social determinants and determines their potential association.

**Methods:** Published premature death rates and other data in 2015 were used. Analysis of covariance was performed with premature death rate as the response variable and state as the unit of observation. A Wellbeing Index for socioeconomic deprivation is constructed by principal component analysis based on ten socioeconomic deprivation variables.

**Results:** The age-adjusted rate of all-cause premature death is higher in rural vs. urban areas in most states and differs significantly among states. For example, premature death rate in the worst state Mississippi is 92% higher than that in Connecticut (the best) (534.6 vs. 275.3 per 100,000 residents) in rural areas, while West Virginia’s rate is 80% higher than Minnesota (463.2 vs. 257/100,000) in urban areas. The rural-urban difference in premature death rate of the same state is large. For example, premature death rate is 52% higher in rural vs. urban areas of Virginia (448.6 vs. 295.7/100,000). Conversely, the rate was 17% lower in rural vs. urban areas of Wyoming (340.8 vs. 398.8/100,000).

Analysis of covariance demonstrates that premature death rate is positively associated with Wellbeing Index and the percentage of the uninsured, and is negatively associated with primary care physician supply and the percentage of Hispanics. Premature death rate is not significantly higher in rural vs. urban areas after adjusting for covariates.

**Conclusions:** Premature differs significantly among states and between rural and urban areas. Premature death rate is significantly associated with sociodemographic factors. Higher premature mortality in rural areas was linked to shortage of physicians and lack of insurance but not rural residence per se.

Supporting Health Access for Women and Children in Waller County Texas, Claire Jamison, MPH (c), Brandii Mayes, MPH, Remeka Jones, MPH, Jeslin Jose, Melissa Valerio, PhD, MPH, Jennifer Holcomb, MPH

**Background:** Maternal and infant health is an essential indicator of the overall health of a nation. Supporting Health Access for Women and Infants in Waller County was a collaborative project between The University of Texas Health and Science Center at Houston and the Texas Department of State Health Services (DSHS) that aimed to assess resources pertaining to maternal and infant health in Waller County, Texas, a rural county located northwest of Houston, Texas.

**Methods:** This study used qualitative and quantitative methods to identify the health needs and community organizational capacity for mothers and infants in Waller County. Participants completed a focus group as well as a survey to assess needs; descriptive statistics on focus group participants were also gathered. The study population consisted of women who live in Waller County that had either given birth in the last two years or were currently pregnant. Results:

Key themes identified by the focus group included: women and infants in Waller County have limited healthcare access within their community, low healthcare literacy with difficulties navigating local resources, lack access to transportation, and are in need of further educational classes to support an increase healthcare literacy and knowledge of social programs available in their community and across Texas.

**Conclusions:** Recommendations to improve maternal and infant health in Waller County included. Increasing enrollment in Medicaid in order to improve access to care in rural areas. Review and expand DSHS sponsored community located services promoting existing state programs aimed at increasing access to healthcare to underserved communities. The development of a community stakeholder or organization to help connect women in the community to existing resources. Each of the suggested recommendations is aligned with evidence based programming and support reach of underserved rural communities.

CommUNITY Cares: A Community and Clinical Collaboration Addressing Health Disparities in East Texas Utilizing Community Health Worker Navigation, Joy Johnson, BS, CHES, Salvador Marquez, BS, CHES

**Background:** CommUNITY Cares is an innovative project addressing several identified community needs in the East Texas area, including insufficient access to primary health care services, high costs due to potentially preventable hospitalizations and inappropriate emergency department utilization. This project consists of a network of clinical and
community partnerships to support the provision of primary care services to the underserved population in East Texas with limited access to consistent healthcare services, often seeking primary-related care in local Emergency Departments (EDs).

**Methods:** The CommUNITY Cares partnership focuses on creating synergy between existing health and social care entities utilizing a cloud-based navigation system to connect uninsured individuals to Community Health Workers (CHWs) at NET Health Center for Healthy Living (Center). The CHWs use an assessment tool to connect referred individuals to the most appropriate primary care home, while addressing their social service needs. A follow up assessment is conducted, after the clients’ appointment, to ensure clients are satisfied with their new primary care home, to assist with any additional needs the clients have and to provide education on appropriate ED utilization.

**Results:** Since the launch of the project in December, 2017, 573 individuals have been referred to the program, with 67% of all referrals coming directly from the ED. 99% are uninsured, 65% are unemployed and average monthly income is $850. Average ED visits among referred clients range from 1-20 times with an average of 3 times per year. 57 clients in the project have completed the referral process and are now established with a primary care home.

**Conclusions:** In its pilot phase, CommUNITY Cares demonstrates a potential solution for improving access to primary care services through its medical-community health collaboration and CHW-led navigation. Expansion of the project will include CHW navigation in the ED and the inclusion of specialty care partners.

Evaluating Health Literacy Needs to Construct Clinical Practice Framework and Policy Recommendations for Improved Hospital Interventions, Priscilla Kha, BS, Librada Callender, MPH, Anne Woolsey, MS, Lacy McDonald, Simon Driver, PhD

**Background:** Health literacy is central to self-management of disease and successful navigation of hospital systems. The rehabilitation setting serves as a unique venue for understanding the health literacy needs in transitional care from acute care, to inpatient rehabilitation, and finally to outpatient services. Institutional changes reflect a movement towards implementation of more health literate care organizations; however, comprehensive comparisons for practical approaches to health education remains limited. The objective of this study is to present a health literacy framework for health literate organizations in the rehabilitation setting for adaptation into other subspecialties.

**Methods:** We examined clinician perceptions of performance in critical areas of health literacy domains in comparison to health literacy levels across several subsets of patients undergoing rehabilitation therapy. We developed a health education framework under the guidance of the Agency for Healthcare Research and Quality (AHRQ) Model for Improvement. The sub-analysis of stroke patients was explicitly targeted to construct a clinical practice framework for better integration of health literacy interventions.

**Results:** Various health literacy interventions including the need for better health education materials were insufficiently implemented in the rehabilitation setting as perceived by clinicians. Preliminary findings revealed that higher health literacy levels show a limited correlation to improved functional outcomes, however, patients with lower health literacy levels were more affected by their literacy status.

**Conclusions:** A framework for clinical practice in addressing health literacy needs assists in maintaining a culture of quality care. This framework based on the stroke sub-analysis can be adapted to other patient subgroups in the rehabilitation setting, translating health literacy research into practice. Policy recommendations and intervention strategies to guide systemic changes within large hospital systems to increase the quality of care through health literacy, linking healthcare systems, research initiatives, and best practices to leaders in health literacy.

Applied Health Literacy Training for Health Professions Students Working with Older Adults, Janice Knebl, DO, MBA, Erin Carlson, DrPH, Diane Hawley, PhD, RN, Neika Saville, M.Ed., Jennifer Severance, PhD, Subhada Prasad, MHA

**Background:** Nearly 60% of older adults have low health literacy. Communicating with older adults so they can understand and act upon health information is important to health outcomes. Health professions training curricula may be enhanced to equip future healthcare providers with skills for communicating with older adults. To achieve this, the University of North Texas Health Science Center’s Center for Geriatrics partnered with community organizations to deliver collaborative training approaches.

**Methods:** Health professions students (n=473) from Fort Worth-area universities are grouped into interdisciplinary teams. Each team is paired with an older adult Senior Mentor (n=68). After receiving training on health literacy tech-
techniques, each team presents a relevant health education message to the mentor in his/her home. Perceptions of participating students and senior mentors were assessed using a post-only, semi-structured Likert scale surveys. There was a 100% response rate among students and senior mentors.

**Results:** Evaluation revealed 74% (n=352) of students agreed that they understand how to communicate with older adults using health literacy strategies due to the training. Further, 80% of student respondents agreed that they are more confident about their knowledge of health care needs for older adults. Analysis of responses to open-ended survey items revealed themes of students’ reported increased awareness of 1) considerations in caring for older adults; 2) community resources; and 3) caring for geriatric health issues. Among senior mentor responses, 94% (n=64 of 68 respondents) reported feeling better informed on a health topic due to the students’ presentation, 87% (n=58) said they can apply what they learned from the presentation to their health, and 71% (n=48) reported that they have made changes in their daily lives due to the presentation.

**Conclusions:** Interdisciplinary health literacy enhancements to existing health professions education may increase future providers’ knowledge, skills and confidence in communicating with older adults about health issues and community supports.

**What do Asian American Women think about Breast and Cervical Cancer and Cancer Screening? - Findings from Focus Groups,** Jisook Ko, PhD, Miyong Kim, PhD, Jackly Hecht, MSN, Ya-Ching Huang, MSN, Eunju Choi, MSN, Kelli Plack

**Background:** Asian Americans (AAs) are one of the fastest growing minority groups in Texas, but they are linguistically isolated and often excluded from the allocation of public resources or outreach efforts. AA including Korean American (KA) and Vietnamese American (VA) women are the least likely group to receive early breast and cervical cancer screening, and their breast and cervical cancers are diagnosed at much later stages than those of whites. Hence, we set out to explore knowledge, perceptions, and “out-of-the-box” solutions about breast and cervical cancer screenings among KA and VA women.

**Methods:** We conducted two focus groups of 8 KA women and 7 VA women whose age was 18 years and who have experiences working in their ethnic communities as community lay workers. Focus group data were analyzed using qualitative content analysis.

**Results:** Three main themes emerged from the focus groups: (1) limited awareness and knowledge of breast and cervical cancer screening (2) perceptions and beliefs about breast and cervical cancer screening, (3) promoting cancer screening led by community lay workers. There were not only universal discoveries but also different views between KA and VA women: KA women are more likely to be aware of screening and VA women are less likely to be exposed to cancer screening. Both ethnic women prioritize their family health and function and respect their community leader.

**Conclusions:** The findings of this study illustrate KA and VA women are generally favorable toward breast and cervical cancer screening, but heterogeneity exists among AA subgroups in their cancer screening perception. Further development of culturally relevant and ethnicity-specific cancer prevention strategies that address the subgroup differences within the larger racial/ethnic population are needed. Employing a community leader to promote breast and cervical cancer screening using a family-centered approach may be effective.

**Occurrence of Birth Defects in the Corpus Christi Area Compared With the Rest of South Texas, 2008-2014,** Peter Langlois, PhD,

**Background:** Due to community concerns, this analysis tried to determine which (if any) birth defects showed elevated occurrence among deliveries to residents in the three-county Corpus Christi area (CCA), compared to the rest of South Texas (operationally defined as Texas Health Service Region 11).

**Methods:** Texas Birth Defects Registry (TBDR) data from 2008-2014 were analyzed using Poisson regression.

**Results:** After adjusting for population differences, occurrence of total birth defects was about 18% higher in the CCA; this was statistically significant. Occurrence of seven specific birth defects was significantly lower in the CCA and occurrence of 25 birth defects was significantly higher. The 25 birth defects were examined more deeply. Their higher occurrence in the CCA was not due to them co-occurring with other highly prevalent birth defects. It also was unlikely due to ascertainment bias or variations in clinical practice. The elevation in total birth defect occurrence in the CCA compared with the rest of south Texas decreased over time. For most of the 25 birth defects, the difference between the two areas remained the same over time. Looking more deeply into detailed information for two birth defects that
were most elevated, no clues were found. Of the 25 defects, higher occurrence in seven birth defects were thought to be potentially more clinically meaningful by clinical geneticists working for the TBDR. Upon mapping, none of those seven exhibited higher occurrence near refinery row in the northern part of the city of Corpus Christi. None of them showed a statistically significant time trend.

**Conclusions:** In 2008-2014, occurrence of total birth defects was about 18% higher in the three-county CCA than in the rest of South Texas. Occurrence of 25 birth defects was also significantly higher. Despite further analyses of the elevated birth defects, the reason for their elevation remains unknown.

**Factors Associated with Fall Risk and Risk Reduction Intervention in Older Population,** Qiwei Li, MS, Cheng Yin, MS, Chenchen Yang, MS, Bhargave Muppaneni, MD, Keya Sen, MS, K. Whisnant Turner, PhD

**Background:** Fear of falling and fall risk are associated with high cost emergency room treatment and extended hospital and rehabilitation stays, and reduced quality of life in older US populations. A falls intervention program originally funded by grants from the National Institutes of Aging now is in operation through the North Central Texas Area Agency on Aging.

**Method:** Volunteer lay leaders, trained as coaches, deploy coaching methodologies associated with cognitive reconstruction. They also lead participants in specially designed low-impact exercises to promote reconditioning and strength acquisition. In a five-year research project, the original Standard Chronic Disease Self-Management Program was evaluated in a randomized study involving more than 1000 subjects. This study found that people who took the program, when compared to people who did not take the program, improved their healthful behaviors (exercise, cognitive symptom management, coping, and communication with physicians), improved their health status (self-reported health, fatigue, liability, social/role activities, and health distress), and decreased their days in the hospital. Studies by others had similar results.

**Results:** The North Central Texas program is ongoing with over 750 participants who have received the community-based interventions in such places as senior centers, libraries, senior apartment complexes, and residential care homes. Preliminary indications are that the program is having a positive impact on falls risk and quality of life for participants in North Central Texas.

**Conclusions:** Self-efficacy is being enhanced through the committed resources of volunteer lay leaders who are achieving success in their interventions with older populations at risk of falls in North Central Texas.

**Forming a Community-Based Coalition to Create a Healthier Community,** Sara Mendez, MS, Heather Clark, DrPH, James Burdine, DrPH

**Background:** The goal of public health accreditation is to improve the health of a community by advancing quality and performance within health departments. For the accreditation process, a health department must complete prerequisites, which include a Community Health Assessment, Community Health Improvement Plan, and a Strategic Plan. This session will discuss the formation of the Brazos Valley Health Coalition (BVHC) and how the Brazos County Health Department (BCHD), Texas A&M School of Public Health, and community partners collaborated to improve the health of Brazos County residents, while also meeting the prerequisite requirements for public health accreditation.

**Methods:** In 2015, the BCHD, in collaboration with numerous social service, healthcare, and governmental agencies, formed the Brazos Valley Health Coalition to address health issues in the Brazos Valley through conducting a community health assessment and creating a community health improvement plan.

**Results:** The community health assessment process incorporated data from existing sources (secondary data), and community discussion groups held across the greater Brazos Valley region. Coalition members provided feedback on the geographic scope, assessment components, priority populations, and types of secondary data to be included in the assessment. The BVHC identified eight priority issues from the results which were narrowed down to three by using a dot vote technique. Task groups were formed around the three priority issues which were outlined in the community health improvement plan (CHIP): access to mental health care, coordination and collaboration of services, and access to primary care. The 2017-2019 Brazos Valley CHIP was developed in August 2017.

**Conclusions:** Community coalitions are an essential resource and tool for a local public health department when addressing the prerequisites for public health accreditation, as well as creating a healthier community. Community input and by-in played a crucial role in making this process a success.
**SA Access: An Interactive Health Insurance Literacy Toolkit**, Ewelina Migut, BS, Aparna Yarram, BS, Ana Diaz, BS, Melanie Stone, MPH, M.Ed, Larissa Aroche-Gutierrez, BS

**Background:** Access Care Texas (ACT) is a community service learning project with the goal of improving health insurance literacy in South Texas. ACT identified the following barriers to health literacy: information overload, difficulty tracking paper materials, and lack of education in how to use insurance, and recognized the growing prevalence of smartphones as an opportunity to overcome these barriers. In collaboration with The Bexar County Health Collaborative, ACT developed SA Access, a mobile application designed to facilitate health insurance enrollment and effective use of health insurance. SA Access presents health insurance information in a visually appealing and intuitively navigable format by incorporating interactive features as well as limiting text-based explanations and jargon.

**Methods:** After conducting train the trainer sessions for community residents, and health care professionals, surveys are given at the end of each training to assess the participants’ perceptions of SA Access and its potential value in their practices. Through these sessions, ACT will educate healthcare professionals on how to use the SA Access app, with the hope that they will share this information with both insured and uninsured community members.

**Results:** Of the 38 healthcare workers who completed the post-training survey, 97% said they will recommend SA Access to others; 78% agreed or strongly agreed they will use the app in the future and that the app will impact their practices.

**Conclusions:** Based on the positive results from train-the-trainer sessions, SA Access has been identified as a potential tool to be used widely by healthcare professionals and community members in order to increase health insurance literacy. Future direction includes hosting additional training sessions, with particular focus on expanding the reach of the app to other branches of healthcare. ACT will also implement revised post-exposure surveys to assess the impact of the app in healthcare practices over time.

**La Historia Del Barrio: The Connection between Community Health Work and Qualitative Data**, Alex Miller Mattingly, MPH

**Background:** The Healthy Neighborhoods project is a Section 1115 Waiver funded project through San Antonio Metropolitan Health District that utilizes promotor(a)s, or community health workers, as community organizers and health educators working within targeted neighborhoods in San Antonio to prevent childhood obesity. Currently in the fifth year of implementation, the promotor(a)s have gained the trust of the communities they serve and are working toward creating environmental and policy changes at the neighborhood level that will have lasting impacts in the community for chronic disease prevention. The project utilizes the framework of Asset-Based Community Development, a community organizing strategy that identifies natural leaders in the community and brings out the gifts of community members that can be mobilized for creating healthier communities.

**Methods:** The project utilizes the CDC’s Recommended Community Strategies to Prevent Obesity. Environmental changes being implemented include organizing local farmers’ markets, implementing Safe Routes to School, school vegetable gardens, and community fitness programs. One of the greatest challenges with this program has been collecting data related to health outcomes. To capture the impact of this work, Healthy Neighborhoods partnered with researchers to capture qualitative data, identify short-term and long-term intervention outcomes, and develop neighborhood-specific case studies that tell the story of how the intervention has impacted the people in the area.

**Results:** Through focus groups, individual interviews, and surveying, the team was able to develop twenty community impact case studies that highlighted the impact and results of the Healthy Neighborhoods’ obesity prevention projects. Based on these case studies, they also developed shorter, lower-literacy story versions of the projects for dissemination in the community.

**Conclusions:** While it was labor-intensive to perform qualitative data collection, this was valuable to the program for understanding the impact of community based obesity prevention. The stories also served to excite, inspire, and further engage local leaders and community members.

**Reports of Physical Symptoms and Sensations Among Gay and Lesbian Aging Adults: Independent and Joint Effects**, Ami Moore, Barton Poche, BA, Ganesh Baniya, MPH

**Background:** Psychological literature recognizes the experiences and health outcomes of sexual minorities as an important focus of research. However, few studies have examined factors that are associated with psychological and physical health of aging gay and lesbian Americans.
Methods: This study used data collected on 100 gay and lesbian Americans aged 50 and above to examine independent and joint associations between socioeconomic, psychosocial, and behavioral variables and reports of health symptoms. We used Pennebaker Inventory of Limbic Languidness, a 54-item scale, to assess reports of physical symptoms and sensations among aging gays and lesbians (Cronbach alpha = 0.94). Linear regression analysis was used.

Results: Gender, years of education, and depression, each independently correlated with reports of physical symptoms and sensations. Males had lower levels of reporting symptoms and sensations (almost 17 points) relative to females. Also, both depression and years of education were positively associated with reports of symptoms. Adding the interaction terms of gender by psychosocial and behavioral variables (depression, anxiety, and substance use), gender was no longer significant. However, there was almost a twofold increase in depression. This shows that depression has both independent and joint effects of reports of symptoms. Additionally, males with depression have decreasing levels of reports of symptoms. Overall, males with depression are significantly different than females with or without depression.

Conclusions: This study shows that reports of health symptoms among older gays and lesbians is influenced by gender, level of depression, and years of education. As the population of aging gays and lesbians is increasing, intervention efforts must take into account these social and psychosocial variables.

Perceptions and Awareness of E-Cigarettes among South Texas Dentists, Patients and Communities, Rahma Mungia, BDS, MSc, DDPHRCs, Meredith Trejo, MPH, Michael Thompson, CEO, Angelina Wittich, PhD, MPH, Nathanael Franks, MBA, Melissa Valerio, PhD, MPH

Background: Electronic cigarettes, also known as e-cigs, vape pens, and/or e-hookahs are battery powered devices that produce an aerosol by heating a liquid that usually contains nicotine, the addictive drug in regular cigarettes, cigars, and other tobacco products. E-cigarettes were introduced in the U.S. in 2007 and have gained substantial popularity. Texans of all ages need accessible, appealing and evidence-based information to help inform uptake and continued use decisions.

Methods: Four focus groups were conducted in May and June 2018, two with dentists and hygienists (n=25) and two with community members (n=23). Recruitment methods included phone, e-mail and flyers. Attention was given to recruiting a representative sample of dental practitioners, smokers and non-smokers from different demographic groups in the community. Participants completed demographic surveys; discussions were recorded, transcribed, coded and analyzed.

Results: E-cigarette knowledge among practitioners was limited, practitioners typically do not identify patients as e-cigarette users and evidence-based information and continuing education courses regarding e-cigarette use and its associated health risks were deficient. The overwhelming majority of community participants noted their dental-care providers never asked specifically about e-cig use, almost half viewed e-cigarettes as less dangerous than traditional cigarettes, and the majority reported seeing advertisements promoting e-cigs but no information about its dangerous effects on health in any media source.

Conclusions: Understanding the perceptions of providers and community improves understanding of attitudes, beliefs and knowledge across individual and interpersonal exchanges. The data will inform the design of an evidence-based strategy to best reach community members and dental practitioners. Providing accessible and tailored strategies to improve knowledge of e-cigs and understanding of risks will promote interpersonal communication and is the first step towards addressing this emerging health issue within our community. The interdisciplinary research team will align dental, public health and social service interests to create a multi-level intervention tailored for South Texas populations.

Impacts of Project Saving Smiles - A Spatial Analysis, Pankti Parmar, MPH, Teresita E. Ladrillo, DMD, MPH, Janet A. Aikins, PhD, MPH, Rhea P. Olegario, MPH, CHES, Deborah Banerjee, PhD, Monica Childers, BS

Background: Project Saving Smiles (PSS) is the Houston Health Department’s innovative school-linked, community-based, primary preventive oral health strategy, which aims to reduce the prevalence of caries, and decrease school absences due to oral pathologies. PSS targets second graders from schools, where 50% or more of students are on the Free and Reduced Lunch program. Second graders (of age 7 to 8 years) have newly erupted permanent first molars, which are not fully calcified by then. PSS preventive strategy include, dental screening, application of dental sealants, varnishes and delivery of dental health education. This Spatial study was conducted to determine the impacts of PSS from 2008 to 2018.
Methods: Approximately, 60,000 students’ data were included in the study. The data was categorized into two-time periods i) 2008-2013; ii) 2013-2018 to show any difference in the findings between the first and last five years. Individual level data from the missions were aggregated to the zip code level. Using ArcGIS 10.3 software, maps were created to show caries occurrence (counts), number of sealants present at screening, number of sealants placed at PSS missions, and the association of caries counts and dental insurance.

Results: The highest number of caries experience for both time periods are in five zip codes within the, Aldine, Alief and parts of Houston Independent School Districts (ISDs). These five zip codes also received the highest number of sealants placement at PSS missions. Additionally, the zip codes with higher counts of no dental insurance also had higher counts of caries.

Conclusions: This study shows that PSS is an efficient and effective oral health strategy in reaching large numbers of at-risk school children, the target population, for primary preventive dental services. By serving the targeted population, the PSS is contributing to the reduction of dental health disparities. The PSS is sustained by its active partnerships with ISDs, academic dental institutions, other public health agencies, and community based organizations.

Cyclosporiasis Outbreak at Lackland Air Force Base, TX, 2018, Mary Pawlak, MD, MPH, Ryan Gottfredson, MD, MPH, Theresa Casey, DVM, Thomas Cropper, DVM, Michael Cuomo, MPH, Brian White, DO

Background: Acute gastrointestinal outbreaks cause disruption from work and negatively impact military readiness. While bacterial or viral pathogens are the usual sources, from June through July 2018, Lackland Air Force Base experienced a cyclosporiasis outbreak in two different clusters in the military training population. Cyclospora cayetanensis parasite has been associated with food-borne illness from contaminated fresh produce or water. No person-to-person transmission has been reported.

Methods: Two distinct clusters of cyclosporiasis cases were identified between June 12 and July 7, 2018 in the military training populations. These cases were identified through outpatient medical records and active case-finding through administered questionnaires. A confirmed case was defined as having diarrhea or vomiting and laboratory confirmation of the parasite through gastrointestinal pathogen polymerase chain reaction test. A suspected case was defined with the same symptom(s) without laboratory confirmation. Chi-square analysis was used to determine whether association existed between food exposure and illness.

Results: The first cluster consisted of 62 suspected and 7 confirmed cases among technical training students reported to medical care or during briefings between June 12 and 21, 2018. The second cluster consisted of 24 suspected and 15 confirmed cases among basic trainees who reported to medical care or during briefings between 29 June and 7 July, 2018. Investigation of these clusters did not reveal a conclusive source, but consumption of oranges, blueberries and blackberries were associated with confirmed ill cases. No known connection was observed with national outbreaks that were occurring related to Del Monte Fresh Produce vegetable trays and McDonald’s restaurant salad by Fresh Express.

Conclusions: Lessons learned during this outbreak included maintaining clinical suspicion for cyclosporiasis in persistent gastrointestinal illness and obtaining confirmatory laboratory testing for expedited treatment.

Law Enforcement and Public Health Collaboration to Prevent and Prepare for Workplace Violence and to meet Interprofessional Practice Competencies, Cara Pennel, DrPH, MPH, Leslie Stalnaker, Destin Sims, Rob Ruffner

Background: Gun violence is a public health problem. In the United States, gun-related violence kills more than 33,000 people, injures almost 85,000, and is estimated to cost $229 billion annually. While mass shootings at schools and workplaces make up a relatively small percentage of gun-related deaths and disabilities, preventing and preparing for these events is critical. The Council on Education for Public Health requires all accredited schools and programs of public health to meet foundational competencies, one of which is to perform effectively on interprofessional teams. This competency can be met by public health students working with non-public health students or professionals from non-public health disciplines. At the request of a community partner, Galveston County Mutual Assistance Partnership, Master of Public Health students at the University of Texas Medical Branch teamed up with the Galveston Police Department to fulfill this interprofessional practice competency, while helping nonprofit organizations prevent and prepare for active shooting events.

Methods: Public Health students attended an active shooter training, hosted and taught by Galveston Police Department, which was also attended by a variety of community-based organizations. After the training, students, a local...
police sergeant, and organizational representatives scheduled and performed a workplace walk-through assessment using a modified Workplace Violence Checklist developed at UC-Berkeley. Students worked on teams to develop reports with safety and security observations, challenges and risks, as well as specific recommendations for staff, clients, and/or students.

Results: The co-authors reviewed and assessed the reports prior to the students scheduling and presenting the findings. Debriefs with students and organizations were held to evaluate the process for improvement and whether the activity and recommendations facilitated any organizational responses. Project challenges included negotiating schedules of involved parties, lack of resources to make recommended changes, and the “extramural” nature of the project.

Conclusions: This project helped students gain interprofessional skills by working with local law enforcement, facilitated law enforcement partnerships with the community, and helped local nonprofit organizations, with few resources, prevent and prepare for potential workplace violence and active shooter events.

Confessions of an Undergraduate Public Health Student: Impact of an Interdisciplinary Service Learning Project, Giovani Pimentel-Galvan

Background: There is consensus in higher education that experiential learning is necessary for professional development of students. Service learning is a type of experiential learning that combines community service and reflection. Service learning can be an effective method for curriculum instruction and community engagement in undergraduate public health programs.

Methods: This presentation reflects the impact of service learning in an undergraduate public health class. The objective of the class was to provide students with both learning and community service experiences. The service learning project implemented a Community Health Fair (CHF) informed by a previously conducted community needs assessment. The class was divided into specialized committee groups tasked with planning and implementing a CHF in a nearby rural town. The performance and learning outcomes for the project were measured through student writing assignments and CHF evaluation feedback forms. Assignments included group papers outlining responsibilities related to the CHF, and a paper reflecting lessons learned during this project.

Results: Students implemented a 4-hour CHF to promote awareness of healthy living, with a focus on mental health. Measurable outcomes included: a $2,400 budget in sponsorships and monetary donation, recruiting 16 vendors representing various health and wellness organizations and individuals, provision of health screenings, vaccinations and health education. An intangible outcome was the reinforcement of community based participatory engagement benefits for the university and surrounding community.

Conclusions: Service learning is beneficial to student and community development; students are able to develop health promotion skills such as community engagement, program planning and evaluation. This hands on learning facilitates the translation of abstract and hard to understand theory into public health practice that meets actual needs of the community. Participation in this project reinforced the importance and impact interdisciplinary partnerships. The project adds consensus that service learning is an effective model for public health undergraduate instruction.

Advancing Environmental Health Literacy: Developing interactive, Hands-on Science Kits for Use with Community Audiences, John Prochaska, DrPH, MPH, Chantele Singleton, Sharon Croisant, MS, PhD

Over the past year, four University-based Community Engagement Cores were funded by the National Institute of Environmental Health Sciences (NIEHS) to develop eight interactive environmental health science kits for use with community audiences. These kits cover a range of topics, including lead poisoning prevention, drinking water quality from private well and municipal sources, healthy homes, skin cancer and UV radiation exposure, and pesticide use in the home. The development of these kits included integrating input from community engagement experts and community-based stakeholders. The purpose of these kits is to provide a resource for diverse community audiences to build environmental health literacy. These kits are essentially labs in bags that require no special preparation on behalf of a facilitator. No additional special equipment is needed beyond a table or other flat surface to work on. The goal for these kits is to make them as accessible and easy to use as possible. They are graphically rich, story-based, involve limited reading, and integrate hands-on activities in a setting that would take approximately 20 minutes. We will discuss the process of developing these kits, including gaining and integrating stakeholder feedback. Potential applications of these kits will be presented, and example kits will be on hand for interested participants to experience and evaluate. We will also present challenges to developing these kits, as well as best practices that were identified
Assessment of Food Deserts in El Paso County, TX, and Loudoun County, VA, Amit Raysoni, PhD, MPH, Stanley Mubako, PhD, Maria O. Duarte-Gardea, PhD, RD, LD, Gabriel Ibarra-Mejia, MD, PhD

**Background:** Consumption of processed foods high in sodium and fat can have a plethora of health complications, including, but not limited to hypertension, high cholesterol levels, obesity, diabetes, and cancer. Many studies have documented that lack of access to viable healthy eating options and grocery stores selling affordable fresh fruits and vegetables in any neighborhood or area can result in negative public health outcomes. These areas devoid of such grocery stores and healthy eating options can be classified as Food Deserts, as per one of the criteria adopted by the United States Department of Agriculture (USDA).

**Methods:** Using advanced geo-spatial techniques, this research work identifies and compares the census tracts that can be classified as a typical Food Desert in El Paso County, TX (81% Hispanic/Latino population, median income per household: $41,637) and Loudoun County, VA (richest county in US, median household income: $118,000). Census tracts for both the counties will be obtained from US Census 2017 TIGER/Line Shapefiles. Various demographic and Socio-Economic variables will be obtained from the US Census Bureau’s American Community Survey, 2015 ACS 5-year estimates. GIS spatial techniques such as Clusters Mapping, Cluster and Outlier Analysis, and Hot Spot Analysis will be employed to test the two hypotheses.

**Results:** This research work is premised on two hypotheses. First, census tracts in both the counties that are predominantly Hispanic/Latino would have a dearth of grocery stores in contrast to more affluent and mixed neighborhoods. Second, lack of public transportation facilities can hamper peoples’ access to grocery stores subsequently impacting their overall health status.

**Conclusions:** Findings from this research work would help understand the larger public health related issues that can emanate from lack of nutritious food habits. Also, findings would help policy makers draft healthy living guidelines in terms of situating healthy eating places and grocery stores.

The Community Advocates Program: Addressing Social Needs in Underserved Populations with a Trained, Volunteer, Student Workforce, Ashley Rodriguez

**Background:** The underserved population is a broad term that is used to describe groups of people that face social, economic, and cultural barriers to accessing health care and social services. Baylor Scott & White Health (BSWH) provides quality health care to medically underserved patients. BSWH uses Community Advocates, a trained, volunteer student workforce, to support patients by addressing their social needs through screening and connection to community and faith-based organizations as well as government agencies.

**Methods:** Community Advocates are recruited from local universities and trained to work under direct supervision of clinical staff. The advocates address high risk patients’ social needs, identify barriers to services and maintain a community resource directory to effectively navigate patients to community resources. Results are from two clinical sites: an emergency department (ED) and nurse led home visit program.

**Results:** From summer 2017 through spring 2018 a total of 405 patients were screened for social needs; 338 at the emergency department and 67 at the home visit program. Among the total patients screened at the ED, 74.8% (253) screened positive for at least one social need and 92.4% (234) of those requested assistance with their needs. At the home visit program, 100% (67) of patients screened positive for at least one social need and all requested assistance with their needs.

**Conclusions:** Our findings illustrate the critical role Community Advocates fulfill in enhancing the patient experience. This program has been tied to strategic initiatives for BSWH, along with several other tactics as a means of impacting all-cause readmission reduction. This program directly impacts this goal by effectively addressing social determinants of health, thus improving health outcomes for underserved patients across our health system.

Developing a Strategic Plan for an Evidence-Based Employee Wellness Program, Dayana Rodriguez, MPH/MBA (c), Andrew Gonzalez, M.Ed (c), Katherine Velasquez, PhD, RN

**Background:** Chronic diseases are a major burden on Texas businesses due to rising healthcare costs and lost employee productivity. Employee health promotion programs have the potential to change health behaviors and reduce
chronic diseases. An evidence-based strategic plan can guide employee wellness programs and ensure health behavior change. This presentation describes the process used to develop a strategic plan that will guide employee worksite wellness initiatives for State public health employees in Public Health Region 8.

**Methods**: Analysis of baseline data from three main sources helped determine the focus of the strategic plan: biennial employee wellness Needs Assessments, an employee Pre/Post survey, and the Center for Disease Control (CDC) worksite scorecard. These assessments covered biometric indicators, health promotion interventions currently available at the worksite, and employee health beliefs. Various health behavior change theories guided the development of the plan including The Trans Theoretical Stages of Change Model, The Health Belief Model, and the Ecological model. These models ensured that the plan was tailored to the stage of change employees were in, addressed the overall work environment, and targeted employee’s health beliefs. Employee feedback was solicited throughout the process to ensure their input was incorporated. Strategic plans from other employee wellness programs were researched and served as references.

**Results**: The strategic plan developed for DSHS covers programs, policies, and organizational/environmental supports. Each section addresses multiple health behaviors including a strategy and an outcome measurement for evaluation. The annual tasks required to achieve each goal are also outlined.

**Conclusions**: Developing a strategic plan to guide the employee wellness program ensures that initiatives are evidence-based and that the program is meeting its objectives. It also reinforces growth and continuity of the program by clearly outlining annual tasks.

**An Outbreak of Salmonella infantis in a Bexar County NICU, 2018**, Kerris Sease, MPH, Rita Espinoza, MPH, Christina Carmona, MPH, Anita Kurian, MBBS, MPH, DrPH, Deborah Gonzalez, MS, Cynthia Williams, MPH

**Background**: In February 2018, the City of San Antonio Metropolitan Health District received a call from a local hospital reporting a possible outbreak of Salmonella within a neonatal intensive care unit (NICU). Two neonates who had been in the NICU since birth tested positive for Salmonella by polymerase chain reaction (PCR). These findings triggered an investigation into the source, and transmission of Salmonella in the NICU.

**Methods**: Stool samples from each neonate in the NICU were collected and tested. A site visit was conducted to observe, and review NICU infection control policies, procedures, and dietary tasks. Staff members were interviewed and stool samples were requested from those who reported having diarrheal illness. Environmental samples were collected and tested. Stool samples were cultured and tested using pulsed-field gel electrophoresis (PFGE). Confirmed cases were defined as patients or staff members of the NICU with laboratory confirmed Salmonella infantis. Probable cases were defined as patients or staff members of the NICU who had diarrheal illness during the incubation period without a positive laboratory result for Salmonella infantis.

**Results**: Three of 12 (25%) neonates in the NICU tested positive for Salmonella infantis. No staff members tested positive for Salmonella. PFGE testing linked the neonates to a Texas statewide cluster. All of the environmental samples tested negative for Salmonella.

**Conclusions**: Though the source of Salmonella was unable to be identified in the NICU, it is likely that a staff member was the source of infection. This sheds light on the importance of proper hand hygiene, and implementation of policies that exclude all sick staff from work in the NICU.

**Breaking New Grounds to Build a Lead-Free Waco**, Vaidehi Shah, MPH, Kelly Craine, Sherry Williams, APRN, Margaret Cowart, BSN, RN, Marcus Davilla

**Background**: In 2016, nearly 13% percent children aged 1-5 years reported elevated blood lead levels in 76707 zip code in Waco, TX. This percentage is higher than the state average of 2.6 percent. Slow growth and development, learning and behavior problem, and hearing and speech problems are some of the long-term or permanent health problems caused by lead poisoning in children. Lead exposure may occur through water, imported products or through the paint in homes built before 1978. Census estimates show more than two-thirds of homes in the 76707 ZIP code were built before 1978. These statistics along with the determination to protect these children led to the initiation of a program to build a lead-free Waco.

**Methods**: Waco-McLennan County Public Health District (WMCPHD) developed MOUs with the Texas Department of State Health Services to receive data on children tested with elevated blood levels in Waco. The Lead workgroup brainstormed ideas to fund the program by applying for grants at the national and state level, building partnerships with
local organizations, and consulting with cities across the country with similar programs. WMCPHD also developed educational packets and online programs for health care and child care providers.

**Results:** The City of Waco Council is the final stages of passing a one-of-its-kind lead ordinance which would mandate remediation of houses with lead-based paint. Failure to comply with the ordinance would be Class C misdemeanor and may result in penalty or jail time. WMCPHD also applied for the Housing and Urban Development grant to manage the expenses of the program.

**Conclusions:** McLennan County has some of the highest blood lead levels in children in the state of Texas. The lead ordinance is the first step towards a building a safe environment for the children and works as a model for other cities nationwide. Waco is the first city in Texas to have a lead ordinance.

**A Story of Disseminated Tuberculosis and its Lessons,** Terry Simmons, RN; Casandra Jones, MPH

**Background:** To successfully treat tuberculosis, it is necessary to create treatment plans tailored to the patient, to monitor patients closely for the effects of such treatments and to coordinate care among healthcare providers. In order to effectively monitor patients, the CDC recommends performing monthly toxicity checks and to provide directly observed therapy (DOT). DOT has been found to have a 97.8% cure rate as opposed to 88.6% by self-administered therapy. Successful treatment outcomes are dependent on coordinating care as well as following the above recommendations.

**Methods:** In August 2017, the Public Health Region 8 (PHR 8) TB program identified a case of tuberculosis in a 70-year-old male. The patient was smear, culture and PCR positive. This case was complicated by a pleural effusion, pulmonary emboli, body-wide dissemination, brain tuberculomas, and symptoms of hepatotoxicity. From August to October PHR 8 coordinated multiple treatment strategies, including: drainage of the pleural effusion, use of blood thinners, traditional RIPE, DOT and medication to prevent nausea.

**Results:** Until the patient was admitted to TCID, no treatment improved the patient’s condition. DOT and monthly toxicity checks conducted by PHR 8 staff led to two hospital admissions where the pleural effusion and pulmonary emboli were identified. Upon identification of the pulmonary emboli the patient was immediately transferred to the inpatient care of TCID. PHR 8 and TCID staff worked together to get the patient on effective treatment, which included 18 months of RIPE with higher dosages of rifampin due to low drug serum levels.

**Conclusions:** Complicated TB cases like this one serve as a reminder of the importance of regular DOT, monthly toxicity checks, and coordinated care between health care providers. The patient has been released from TCID and will be closely monitored by PHR 8 for the duration of the patient’s treatment. Close monitoring ensures successful treatment outcomes.

**Leveraging Coalitions to Improve the Community Health Improvement Process,** Melissa Tung, MPH, Kelli Becerra, M.Ed

**Background:** Every three years, Williamson County and Cities Health District (WCCHD) partners with community organizations and hospital systems to develop a Community Health Assessment (CHA) and a Community Health Improvement Plan (CHIP). As of September 2018, WCCHD is in the second year of implementing the 2017-2019 CHIP and beginning the process of developing the 2019 CHA. Formed in 2009, the WilCo Wellness Alliance (WWA) is Williamson County’s health and wellness coalition. As of 2018, the WWA is comprised of over 800 community members and 130 organizations representing healthcare, school, government, business, non-profit, and faith-based agencies. Over the past three years, WCCHD has integrated the CHA/CHIP process into the WWA foundation and activities.

**Methods:** The CHA/CHIP process is a driver of all WWA activities. The WWA working groups are responsible for drafting and implementing action plans that form the 2017-2019 CHIP. At every working group meeting, there is a fixed agenda item for the CHA/CHIP. Working group initiatives and activities align to the CHIP. The CHA and CHIP are developed by utilizing existing relationships established within the WWA in order to reach stakeholders and the community members within the county.

**Results:** Relationships with the community already exist when working with community coalitions, which decreases time spent building connections. Including community organizations throughout the process increases buy-in to the CHA/CHIP, which increases the number of agencies working involved in CHA/CHIP initiatives. Utilizing diverse relationships increases access to local data and information, making the CHA/CHIP more accurate and representative of the population. Results highlight the mutually benefiting nature of the relationship between coalitions and public health when conducting CHAs and CHIPs.
**Conclusions**: The CHA/CHIP process is significantly improved when coalitions and public health work together. Three advantages exists by leveraging coalitions to improve the CHA/CHIP process: improved relationships, improved buy-in, and improved community reach.

**Identifying the Determinants of Exposure to Cooking Related Airborne Pollutants, Employee Comfort and Respiratory symptoms in Mobile Food Units,** Maximea Vigilant, DrPH, George L. Deleclos, MD, MPH, PhD, Lawrence Whitehead, PhD

**Background**: In Harris County, Texas, Mobile Food Units (MFUs) have become very popular due to a variety of economical, technological and cultural reasons. During the food preparation process, workers may be exposed to cooking-related airborne pollutants, which are potential health risks.

**Methods**: In this cross-sectional study of randomly selected, unrestricted, Harris County Public Health (HCPH) permitted, MFUs, we monitored air flow at the vent hood, short-term air concentration levels of carbon dioxide (CO2), carbon monoxide (CO), particulate matter (PM2.5) and ultrafine particles (UFP). All adult workers present on these units were invited to participate in an interviewer-administered survey that consisted of demographics, a brief work history, measurement of employee comfort (tolerance to heat, temperature extremes, humidity and physical exertion), and eye and both upper and lower respiratory symptoms.

**Results**: A total of 50 MFUs and 106 workers participated in the study. There were more trailers (n=28) than trucks (n=22). Air contaminant levels were most often below permissible levels, although there were a few instances (n=3) where high carbon monoxide levels were measured. High temperatures were associated with a nearly five-fold increase in CO levels, although not statistically significant (Odds Ratio, OR=4.78; 9% CI: 0.83-27.13). Using a griddle was associated with a nearly threefold increase in PM2.5 (OR=2.98; 95%CI: 0.51-17.41), but again not statistically significant. There was a high prevalence of self-reported discomfort in hot, humid environments and high physical demands. However, the main determinant of employee discomfort was increasing age. Approximately 40% of the population reported having experience one or more respiratory symptoms. The factor most strongly related to respiratory symptoms was smoking.

**Conclusions**: MFUs did not appear to have a major negative influence on cooking-related airborne contaminant concentrations, employee comfort or respiratory symptoms. Personal factors including age and smoking status had a greater impact on employee self-reported comfort and respiratory symptoms.

**Assessing the Organizational Health Literacy in Hospitals in North Texas,** Teresa Wagner, DrPH, MS, CPH, RD/LD, Carol Howe, PhD, RN, CDE

**Background**: Health literacy remains an enormous challenge for health care providers and patients alike, costing the U.S. health care system an estimated $106 billion to $238 billion per year (Vernon, 2007). Approximately one in three adults struggle with health literacy, lacking the skills to obtain, understand, and use health information to make health care decisions (Kutner, Greenberg, Jin, & Paulsen, 2006). Originally conceived as an individual patient’s skill or lack of skill, the focus was on health literacy screening (Wolf et al., 2007). More recently, health literacy experts have turned away from an individual patient focus, broadening the concept of health literacy to a function of the interaction between health care providers, the health system, and the patient (Koh, Brach, Harris, & Parchman, 2013). An Institute of Medicine Roundtable on Health Literacy established 10 aspirational attributes of the health literate organization that make it easier for patients to understand and use health information to take care of their health (Brach et al., 2012).

**Methods**: To answer the research questions, a descriptive mixed methods design will be used, including a 10-item survey and a semi-structured interview with key informants at each participating institution. The sampling frame will include up to 10 key informants from participating institutions. A key informant may be an administrator and/or health care provider who is involved in health literacy related activities either in direct or indirect patient care. Key informant characteristics will be recorded, including health professional licensure, role title, and years in service.

**Results**: At the individual organization level, mean HLHO score provides an indication of how health literate the organization is viewed by the key informants. Mean scores for each item will indicate the extent that an organization meets each attribute. Rank order of HLHO attributes from highest to lowest will inform opportunities for improvement. Scores across institutions will indicate the norms and standards of health literate policies and practices.

**Conclusions**: Thus, each organization can identify areas of opportunity within their own organization as well as ways to work symbiotically throughout the region to improve patient engagement and communication. This may help to
improve patient compliance, satisfaction scores and reduce healthcare utilization saving costs and time.

**STUDENT ORAL PRESENTATIONS**

**Maternal and Child Health Workforce Development in HRSA Region VI: Multimodal MCH Training Program for Underserved and Rural Areas**, Mollie Ewing, BSN, MPH (c), Stephanie Reynolds, MPH (c), Cristell A. Perez, MPH, Courtney E. Byrd-Williams, PhD

**Background**: The HRSA-funded Multimodal Maternal and Child Health (MCH) Training Program aims to strengthen the capacity of professionals serving MCH populations in isolated, underserved areas within HRSA Region VI (Texas, New Mexico, Oklahoma, Arkansas, and Louisiana). These racially/ethnically diverse areas face a growing MCH population suffering from health disparities. Our trainings are offered at no cost, both online and in person, and the majority are certified for continuing education credits for Texas Community Health Workers (CHWs) by the Texas Department of State Health Services. Training topics are developed through assessing workforce needs and collaborating with community-based partners to achieve their unique education needs.

**Methods**: The Addressing Infant Mortality: Preconception Health training was co-created with a health organization in Dallas/Fort Worth. Delivered in person in February and June of 2018, this training had the following objectives: 1) enhance knowledge of healthy time between pregnancies and behaviors to prevent birth defects, and 2) increase intention and self-efficacy to develop a life plan with clients. Participants completed a pre- and post-workshop survey evaluating intention, self-efficacy, and knowledge related to training content and demographics. Participant changes were evaluated using a paired t-test.

**Results**: Thirty-nine of the 52 participants completed a pre- and post-workshop survey. Of the 39, 90% identified as female, 41% as Hispanic White, and 44% as 45-54 years old. Paired t-tests of pre- and post-workshop survey results showed significant increases in trainees’ content knowledge (p<0.001) and intention and self-efficacy to complete a life plan with clients (p<0.01 and p<0.001 respectively).

**Conclusions**: These findings suggest that the in-person workshop effectively improved trainees’ intention and self-efficacy to complete a life plan with a client and enhanced their knowledge surrounding folic acid, birth defects, and time between pregnancies. Further research is needed to investigate the long-term impact of trainings on the health of geographically-isolated, vulnerable MCH populations served by the trainees.


**Background**: Peer-reviewed studies suggest that a hostile gestational environment is associated with delayed neurological development for the infant. Autism is estimated to affect 1 in 59 United States children, yet limited research has studied Hispanic children with autism. The Rio Grande Valley (RGV) is a medically underserved area with a 90% Hispanic population, making it an optimal location to conduct preliminary research of prenatal risk factors among Hispanic women and their children who have Autism Spectrum Disorder (ASD).

**Purpose**: The University of Texas RGV Hispanic Autism Research Center (HARC) studied Hispanic children with autism and their biological mothers to identify potential environmental exposures and prenatal risk factors that could impact the risk for autism.

**Methods**: This pilot study recruited 25 Hispanic mothers and their biological children with autism and 25 Hispanic control mothers and children. Participants completed a twelve-section survey that included specific prenatal risk factors, such as gestational diabetes, maternal age, and length of pregnancy. The goal was to evaluate if specific prenatal risk factors demonstrate a higher prevalence among Hispanic mothers of children with autism living on the US-Mexico border.

**Results**: STATA statistical analysis showed a significantly higher proportion of vaginal bleeding during gestation in Hispanic mothers of children with autism than control mothers (n=9/25, 36%, p=0.037). This finding supports peer-reviewed studies that have demonstrated a high prevalence of vaginal bleeding during the gestation of children diagnosed with ASD when compared to typically developed children.

**Conclusions**: This pilot study adds to the body of research suggesting an increased prevalence of vaginal bleeding in women with children diagnosed with ASD. More research is needed to establish if vaginal bleeding can serve as a symptom of maternal inflammation and whether that dysregulation to the gestational environment leads to delayed neurological development, specifically among Hispanic children.
Addressing Multicultural Patient Needs from Classroom to Practice: Cross-Cultural Education in Texas Schools of Medicine, Dirk Wristers, BS, Hariharan Athreya, MD, MPH, Jennifer Holcomb, MPH, Melissa Valerio, PhD, MPH, Nagla Elerian, MS, Lesley French, JD, Janette Ingram, MD, MBA, David Lakey, MD, Divya Patel, PhD

**Background:** Texas physicians are increasingly likely to encounter patients of diverse racial, ethnic, linguistic, and religious backgrounds. Failure to consider cultural factors influencing disease management and healthcare decision-making may lead to stereotyping and bias resulting in patient dissatisfaction, poor adherence to care and poorer health outcomes. Medical education is responding to changing population needs by developing cross-cultural education programs. The purpose of this study was to describe methods and content of cross-cultural education across Texas medical schools, to inform best practices for integrating cross-cultural training within the medical school setting.

**Methods:** In 2018, all nine Texas allopathic medical schools provided details of content and implementation of their cross-cultural training curricula. Semi-structured phone interviews were conducted with faculty and staff responsible for cross-cultural curricula.

**Results:** Notable variation in timing, sequence and delivery of cross-cultural curricula was found across Texas medical schools. All medical schools started cross-cultural training in the first year, and the duration of training ranged from 2-4 years across the nine schools. Most curricula focused on themes of sociology, ethics, racism, LGBTQ issues, and cultural customs of communities. Few schools specifically addressed issues of language (n=4), rural health (n=1), and access to care (n=2). Commonly reported challenges to implementation included inadequately trained faculty and poor evaluation tools for effectiveness of curricula over time.

**Conclusions:** There is a range of cross-cultural education strategies which has resulted in varied training of culturally competent care to Texas medical students. Cross-cultural education was important across all schools, but each offered unique components or approaches, pointing to an opportunity to collaboratively enhance cross-cultural education. Programs integrating longitudinal, interdisciplinary teaching methods that provide students opportunities to engage with their communities may offer greater opportunity for longterm practice. Ongoing evaluation and modification of cross-cultural education for future and current physicians can help ensure optimal care and improve equity across Texas.

**POSTER PRESENTATIONS**

**The Impact of Depression in College Students on Past Year Preventive Oral Health Service Utilization,** Azadeh Abdollahi, DDS, Timothy J. Grigsby, PhD

**Background:** Oral health is an important component of overall health. Poor oral hygiene conditions lead to tooth loss, discomfort, pain, as well as difficulty speaking, chewing and swallowing thereby decreasing quality of life. Neglecting oral health can contribute to diseases including cardiovascular disease, diabetes, and stroke. Conversely, experiencing other health problems, like depression, may influence oral health self-care and service utilization. We hypothesized that depression would be associated with preventive oral health service utilization regardless of health insurance status.

**Methods:** College students (n=867) at a large, urban public university completed the National College Health Assessment (NCHA) of which 693 completed items assessing past 12-month dental exam and cleaning, lifetime history of depression diagnosis, and current health insurance status. A layered chi-square test of independence test was used to examine the relationship between health insurance status and past 12-month dental exam by self-reported lifetime depression diagnosis status. The analytic sample was 55.9% female, 51.2% Hispanic/Latinx, with an average age of 22 years (SD=4.6).

**Results:** For individuals without diagnosed depression, having insurance was associated with past year dental exam and cleaning (X² = 23.022, p < 0.001), but students with diagnosed depression were no more or less likely to report past year dental exam and cleaning if they had medical insurance or not (X² = 1.007, p=0.0316). College students with a lifetime diagnosis of depression are no more likely to receive a dental screening and cleaning if they have medical insurance - a trend that is not observed in non-depressed peers.

**Conclusions:** Depressed individuals are especially in need of care as recent evidence suggests depression might lead to lower levels of self-care and the use of certain anti-depressant medications might modify conditions in the mouth leading to increased risk for oral pathology. Research is needed to increase preventive oral health service utilization among depressed young adults.
¡Por Vida! & ¡Viva Health! Community Nutrition for San Antonio, Haley Amick, MPH, Kathleen Shields, CHES

**Background:** The San Antonio Metropolitan Health District’s (Metro Health) Community Nutrition initiatives focus on chronic disease prevention through healthy eating. ¡Por Vida! encourages food service establishments to offer healthy menu items for the community, making it easy to find healthy dining choices. ¡Viva Health! is a campaign to simplify and unite nutrition education across agencies with an emphasis on local culture and health disparities. Increasing access to and cultural relevance of nutrition resources empowers individuals to make healthy decisions.

**Methods:** ¡Por Vida! utilizes a Registered Dietitian to work with dining facilities to find/develop recipes based on nutrition criteria. The ¡Viva Health! campaign extends ¡Por Vida! into homes by providing simple tips for creating healthy plates in your own kitchen. ¡Viva Health! tools can be used with clients, patients, and participants by incorporating the imagery/messages into other nutrition education materials.

**Results:** ¡Por Vida! is implemented in 39 local restaurants, hospitals, universities, and worksites in 150 San Antonio locations, offering 734 menu options. ¡Por Vida! now includes more communities in Texas, a network called ¡Por Vida! Across Texas. Through implementation in internal/external organizations and marketing campaigns, the ¡Viva Health! messages have reached almost 2,000,000 individuals. In 2017, Viva Health curriculum reached 900 children and in 2018, 700 community members participated in a Viva Health Drink Water campaign.

**Conclusions:** Metro Health will expand participation in ¡Por Vida!, focusing in 2019 on increasing the number of partners offering healthy children’s menu options. Metro Health and partnering organizations will continue to reinforce ¡Viva Health’s messages through multiple channels, amplifying culturally appropriate nutrition education. In 2019, the campaign will focus on messages to empower caregivers to make healthy choices for their children. ¡Viva Health! and ¡Por Vida! have previously been promoted separately but strategies are being developed to promote the two programs together as Metro Health’s Community Nutrition resources.

Preparation of Master’s Level Counselors to Work in Integrated Behavioral Health Settings, Nancy Amodei, PhD, Heather Trepal, PhD, LPC-S, Jessica Lloyd-Hazlett, PhD, LPC, NCCC, Stacy Ogbeide, PhD

**Background:** Individuals with behavioral health concerns are more likely to seek assistance in primary care than traditional mental health settings. However, there is a shortage of adequately trained behavioral health professionals to serve such patients. In an effort to address this shortage, the Department of Counseling at the University of Texas at San Antonio developed a specialty track to prepare up to 48 Master’s level Counseling students over a 4-year period to serve in integrated behavioral health (IBH) settings. Findings regarding students’ core knowledge of IBH concepts and strategies as well as self-perceived competencies and preparedness to function in IBH settings will be presented.

**Methods:** To date, 24 students have been selected to take part in the IBH specialty track. The training track consists of two IBH courses, two internship rotations in IBH settings, and an IBH-related supervision class. Students are asked to complete knowledge and self-perceived IBH competency assessments at the beginning and end of each course. At the beginning and end of the overall training program they are also asked to assess their preparedness to work in an IBH setting.

**Results:** Preliminary data from the first cohort of 12 students indicate that there was a significant increase in knowledge following each course (t=2.54, df=11, p<.05 and t=4.53, df =11, p<.01 respectively). There were statistically significant increases in competency ratings at the end of the training relative to baseline. However, compared to the pre-test findings, self-perceived preparedness to practice in IBH settings remained unchanged at the end of their program participation.

**Conclusions:** The IBH track appears to equip emerging behavioral health professionals with the core knowledge and self-reported competence to work in IBH settings. At present, the small sample size may account for the failure to find a perceived increase in preparedness to serve in an integrated care setting.

Diabetes Education for the Desert: Regional Disparity Between Diabetes Prevalence and Diabetes Education Programs in Texas, Juha Baek, MPSA, Sayah Lee, MPH, Ohbet Cheon, PhD, MPA

**Background:** Studies have shown that diabetes education programs not only improve patients’ self-management skills and clinical outcomes, but also increase public awareness on diabetes prevention. However, little is known about the importance of geographical proximity of diabetes education centers to reduce diabetes prevalence in the community. This study aims to identify regional distribution of diabetes education programs in Texas, and examine whether there
is a regional disparity between diabetes prevalence and diabetes education programs at the county level.  

**Methods:** We included a total of 254 counties and 204 diabetes education programs recognized by the American Diabetes Association (ADA) and the Centers for Disease Control and Prevention (CDC) in Texas. The recent data (2013) for diabetes prevalence was collected from the CDC. The geographic information system (GIS) program (ArcMap 10.3.1, ESRI) was used to visually evaluate regional disparity of diabetes education programs at the county level in Texas.  

**Results:** We found that diabetes education programs were located in the limited number of counties, especially concentrated in large cities in Texas, indicating a large spatial variation across counties. Of the total 254 counties, only 53 (20.8%) had at least one diabetes education program, and 48 out of 204 programs (23.5%) were converged in one single county, Harris County. The findings also indicated that there were marginalized areas for diabetes education. Geographical visualization demonstrated regional disparity of education programs in diabetes prevalence.  

**Conclusions:** The findings of this study highlight regions with high demands for diabetes education programs in Texas. The prevalence of diabetic patients and 50 miles buffer zones of existing education programs indicate the imminent need for further diabetes education programs in at least three regions in Texas.

**Zika Prevention Knowledge Among Women of Child Bearing Age in Rural Southeast Texas,** Kim Beam, MPH, Brandii Mayes, MPH  

**Background:** This project sought to assess the knowledge of women in seven rural Southeast Texas counties regarding Zika and subsequent use of recommended preventative measures.  

**Methods:** The Department of State Health Services, Community Health Program, in partnership with Matagorda Episcopal Health Outreach Program, Palacios Community Hub, and Methodist Health Ministries distributed Zika Prevention Kits to women of child bearing age. Zika Prevention Kits contained: EPA-registered insect repellent for skin, Permethrin spray repellent for treating clothing and shoes, standing water tablets for killing mosquito larva, condoms to prevent sexual transmission of Zika, and educational materials in appropriate languages. 475 Kits were distributed, free of charge, to participants who completed a short 14 question survey that collected relevant data for analysis.  

**Results:** The questionnaire results indicated that Hispanic respondents were significantly less likely to know the risk of premature birth as a result of Zika infection. Respondents that indicated they lived in an apartment were significantly less likely to use mosquito repellent, while those in single/multi-family homes were significantly more likely to report use. African American respondents were significantly less likely than all other racial demographics to use mosquito repellents.  

**Conclusions:** Results from the questionnaire show significant lack of knowledge in Hispanics and African Americans regarding the known risks of premature birth and microcephaly associated with Zika. This information will be essential in further education and outreach programs to address the knowledge gap in high-risk populations.

**A Collaborative Effort to Assess Disparities Associated with Behavioral Health in The North Texas Region,** Rachel Blaydes, DO/MPH, Alex Fernandez, Sushma Sharma  

**Background:** This study aimed to provide an assessment of 16 North Texas Counties’ behavioral health access disparities and provide details of the percentage of hospital patient visits from each county diagnosed with mental health and drug issues. The gender, age, race-ethnicity and insurance status of each patient, the zip codes where they live and patient migration between different providers were also detailed. Furthermore, the number of psychiatric beds for each county is listed.  

**Methods:** This study utilized the DFWHCF Data Warehouse which contains comprehensive hospital visit data from 96 partner hospitals, to understand the clinical trends of mental health and substance misuse. Data from other sources like state health department and non-profit organizations were also used to for this study.  

**Results:** In 2016 behavioral health visits in the 16 North Texas Counties were comprised of 53 percent (620,324 visits) for mental health, substance abuse 36 percent (420,456 visits) and 11 percent (134,999 visits) were for both reasons. Of note, almost all counties have behavioral health provider capacity below national and state averages. Seven North Texas Counties have no psychiatric care beds and the number of behavioral care providers throughout the region is below national and state levels.  

**Conclusions:** This study identifies behavioral health characteristics of 16 North Texas counties. The study also dem-
Integrating Mental Health and Primary Care: Preliminary Results of a Telehealth Collaborative Care Effort, Marina Brandman, MPH

**Background:** There is an abundance of research supporting a relationship between chronic disease and mental illness. Texas A&M Physicians (TAMP) and Telehealth Counseling Clinic (TCC) have partnered to offer free mental health counseling services by TCC to TAMP patients. The goal of this collaboration is to improve patient outcomes and access to mental health services by taking a comprehensive approach to care that addresses both the patients’ physical and mental health needs, with emphasis on patients diagnosed with chronic diseases such as diabetes.

**Methods:** The poster will overview demographic variables and describe the comorbid presentations of patients utilizing services. The poster will present descriptive statistics of counseling service utilization including number of attended sessions, number of no-shows, and modalities for treatment.

**Results:** The results of this effort are in progress. By the end of this presentation, participants will be aware of disparities in access to mental health care in designated health professional shortage areas and understand how telehealth can improve access to care.

**Conclusions:** Improved access to care is a notable outcome in itself to demonstrate feasibility and acceptability of new models of care. The poster will also present key challenges and lessons learned from implementing telehealth services within a primary care setting via telehealth.

Establishing Partnerships to Create a Car Seat Education and Distribution Program for Border Residents, Karina Cienega, BS, Rosy De Los Santos, BS, BA, Elvia Ledezma, MPH

**Background:** The Maverick County Child Fatality Review Team (CFRT) investigates child deaths and determines the need for intervention. In 2014, the CFRT reviewed cases and found that one child died in a motor vehicle accident after being ejected from the vehicle. The child was not restrained in a booster seat which may have prevented this death. Upon further review, it was found that there were no certified Child Passenger Safety Technicians in Maverick County. Child fatalities due to the lack or improper use of a car seat are preventable, and so the TX Dept. of State Health Services (DSHS)-Office of Border Public Health (OBPH) partnered with DSHS Safe Riders and other local agencies to establish a child seat distribution center in an effort to educate parents on the importance of child passenger safety.

**Methods:** In order to provide education to residents, staff first became certified Child Passenger Safety Technicians (CPST). Upon completion of the CPST course, DSHS OBPH submitted an application to the DSHS Safe Riders Program for a car seat distribution center. Through the center, CPSTs offer car seat education to parents and provide seats to needy families. A referral process was established with local agencies such as WIC, United Medical Centers, the Eagle Pass Police Department, and local head start programs to identify families in need of car seats. Families were then invited to a safety class to learn how to secure a car seat in a vehicle, correct type of seat for a child’s age and size, how to properly secure a child in a car seat, common misuse practices, as well as safety in and around a vehicle.

**Results:** A total of 60 seats were provided to families through the DSHS Car Seat Distribution Program. Data collected from 2016 and 2017 shows that 93% of the families that participate in the Distribution Center Program did not have their child restrained in a car seat. Research on the effectiveness of child safety seats has found them to reduce fatal injuries by 71% for infants (younger than 1 yr old) and by 54 percent for toddlers (1 to 4 yrs old) in passenger cars (National Highway Traffic Safety Administration, 2011). Furthermore, according to the CDC, Hispanic children (46%) are not buckled up compared with white (26%) children (2009-2010).

**Conclusions:** Establishing partnerships to identify families in need of car seats and providing vital education on correct car seat use in essential to the success of a car seat distribution program.

Evaluating and Overcoming Barriers to Condom Access Through Program Distribution Efforts, Justo Cisneros, BS

**Background:** Texas Wears Condoms is a state funded condom distribution program which promotes safe sex practices while addressing the three main barriers for why people can not obtain condoms such as; contraceptives being too expensive, the potential embarrassment of purchasing them and the lack of accurate information in order to choose the
right condoms. Texas Wears Condoms addresses these barriers by proactively providing distribution services through creative and innovative initiatives.

**Methods:** A total of 19,368 surveys were collected solely from Texas residents in 2017 who requested free condoms online through the official program website. Each order is confirmed and followed by an email survey addressing each person’s knowledge on safe sex, STIs, and their own personal barriers to obtaining condoms. The program serves as a beneficial resource to individuals by obtaining free condoms while receiving supplemental information on the items provided with specific features. The program automatically addresses and provides a solution to each of the three barriers which in turn encourages the individual to take a proactive stance with their sexual health.

**Results:** In 2017 the three main barriers that were addressed are as followed; 58.5% of the sampled survey indicates that people think that condoms are too expensive, 36.2% could not purchase condoms in fear of personal embarrassment and 23.4% were not sure what kinds to purchase. However, Texas Wears Condoms identified these barriers by providing a potential solution to these issues which has allowed people to order discreetly, obtain condoms free of charge while being provided accurate supplemental information on all items.

**Conclusions:** Findings suggest that Texas Wears Condoms addresses peoples concerns in terms of condom access by providing Texas residents with an online platform with the resources needed to overcome barriers to obtaining condoms. Research and data collection is currently ongoing with this implementation study.

**Obesity and Socioeconomic Factors in Texas,** Noah Collaco, Ying Guo, MD MS

**Background:** The adult obesity rate in Texas skyrocketed from 21.7 in 2000 to 33.7 % in 2016. Although the risk factors for obesity are multifactorial, socioeconomic status (SES) could be a contributor. This study assesses two factors in SES, income and educational attainment (EA), and their relationship with obesity rates in Texas.

**Methods:** The publicly available databases from the USDA were analyzed for counties in Texas. Educational attainment and median household income measured in dollars were used as measures for SES. We defined high EA counties as those with higher than average percentage of bachelors degree in Texas. Statistical analysis of the data was done through a general linear model using Rstudio. Correlations were examined using the Pearson correlation coefficient (SAS software).

**Results:** There were 254 counties in Texas, 24 counties defined as high EA counties, and 230 counties as low EA ones. Of all counties, the mean obesity rate was 28.35%; the median income was $46,222, median percentage of bachelor degree was 28.4%. The table below displays the results of the general linear model. Significantly higher obesity rates were found in counties classified as low EA (p=.0295). This model explains approximately 10.7% of the variation in obesity rate between counties in Texas. High EA negatively correlated (r=-0.59 moderately) with obesity rate in the high EA counties (p=.002).

**Conclusions:** Low EA counties had significantly higher obesity rate compared to high EA counties. Within the high EA counties, the increased the percentage of bachelor degree holders significantly correlated with lower obesity rate. SES factors can have significant impacts on health. Future study is needed to assess causes and effects of educational attainment on reducing obesity rates.

**Texas Public Health Priorities: A Process for Health Priority Selection,** Maria Cooper, PhD, Christian Vazquez, MSW, Madison Wisdom, David Marsden, MM, Linda Gaul, PhD, MPH, Stephen Pont, MD, MPH, , Sabrina Blackledge, PhD

**Background:** Texas Public Health Priorities, a collaborative initiative currently being developed by The Texas Department of State Health Services (DSHS) and its partners, aims to identify and improve health outcomes in three to five areas that represent significant health and/or economic burdens to the state.

**Methods:** Multi-pronged approaches are being implemented to select the public health priorities (Phase I, ongoing). DSHS developed a framework to collect input from key stakeholders in the state (local health departments, professional associations, non-profit organizations, academia, and others). Stakeholder engagement sessions are being convened (to date, 8 sessions held). After each session, a brief open-ended survey is sent to gather stakeholder input to 1) identify critical health issues in the state and 2) to gauge capacity and willingness to partner with DSHS to address those health issues. A second stage of engagement will include webinar presentations and a quantitative stakeholder survey to prioritize and rank order a list of public health threats. In addition, a data prioritization matrix was developed to summarize health conditions across mortality, morbidity, health care costs, and quality of life measures. Texas-
specific survey and vital statistics data from Behavioral Risk Factor Surveillance System (BRFSS) and the Institute of Health Metrics and Evaluation (IHME) as well as cost data from Texas Health Care Information Collection (THCIC) and Healthcare Cost and Utilization Project (HCUP) are being populated in the data prioritization matrix.

**Results:** Stakeholder feedback is currently being collected and analyzed. The data prioritization matrix is being populated with state-level data to summarize and rank public health priority areas.

**Conclusions:** A multi-step process integrating various data sources and broad engagement of stakeholder groups is underway to inform the selection of public health priorities, which will be identified in December 2018. Phase II (implementation and evaluation) of Texas Public Health Priorities will occur 2019-2023.

**Building Equity in Health through Data Collection,** Rosy De Los Santos, BS, Elvia Ledezma, MPH, Karina Cienega

**Background:** Given the limited resources and burden of disease in communities along the Texas-Mexico border, the Texas Department of State Health Services (DSHS) Office of Border Public Health (OBPH) has partnered with Community Health Workers (CHWs) to bridge the gap in disease knowledge and access to care. CHWs are vital in delivering key health messages and collecting data about disease prevalence and attitudes towards health care and disease management.

**Methods:** The TX DSHS-OBPH, has recruited and trained CHWs on strategies for the prevention of infectious diseases, such as Zika and Tuberculosis. Using a grassroots approach, CHWs have conducted educational sessions using educational flipbooks they helped develop, as well as surveys and home assessments that have been finalized using their input. CHWs utilized these tools to initiate a Border Zika Response Initiative in response to the public health threat of Zika in Texas.

**Results:** Developing culturally appropriate assessment tools such as surveys and questionnaires is essential to collecting epidemiological data from residents. CHWs have extensive rapport within the community and are subject matter experts in delivering health information to residents. For this reason, their input is critical in developing the tools that are used to assess and educate the community. During the Border Zika Response Initiative, CHWs had a success rate of 83% in providing Zika education to border residents, with a 98% satisfaction rate from the residents they surveyed.

**Conclusions:** CHWs are valuable assets when evaluating communities and educating residents on how to implement preventative strategies in low resource communities.

**Antimicrobial Resistant Genes of Extended Spectrum β-Lactamase and Carbapenem Resistant Enterobacteria in the Environment,** Maria Fuentes, MD, MPH, Delfina Dominguez, PhD, MT, Maria Alvarez, PhD

**Background:** One of the biggest public health challenges of our times is antibiotic resistance (AR). The development of super bugs such as Methicillin Resistant Staphylococcus aureus (MRSA), Extended Spectrum beta-Lactamases (ESBL) and Carbapenem Resistant Enterobacteria (CRE) leave clinicians ill-equipped to treat patients with life-threatening infections. The Rio Grande River provides a major source of potable and agricultural water for the population of the Texas/Mexico border region. Antibiotics, presumably released into the environment by discharges originating from waste-water treatment plants, septic disposal systems, animal feeding operations and urban runoff have a definite impact on the ecosystem and may contribute to an increase in antibiotic resistance. To manage the emergence of AR, it is important to understand the extent of AR bacterial populations in the environment. Purpose: The purpose this research study was to determine the presence of ESBL genes and CRE Enterobacteria in a 26 km segment of the Rio Grande River between El Paso Texas and Cd. Juarez, Mexico.

**Methods:** Water samples were obtained from the Rio Grande River. Genes encoding most commonly found ESBL were examined by DNA technology (PCR). Fecal contamination was assessed by IDEXX Colilert. Isolated bacteria from water was identified and antibiotic profiles were determined by MicroscanTM. Screening for CRE bacteria was done by culture on CHROMagar Chromogenic Media.

**Results:** 310 bacteria were isolated from these 142 were identified. 64% (91) were resistant to at least 2 or more combinations of antibiotics and 74% (105) were multi-resistant to more than 4 different antibiotics. 78.6% (22) were ESBL and 39.3% (11) were CRE positive. Fecal sample analysis did not meet state regulations.

**Conclusions:** These findings illustrate the importance of monitoring the environment to develop interventions to prevent the spread of AR and potential policies to protect our state natural resources.
Disparities in Incidence and Mortality rates of Breast Cancer in North Texas Countries, Mackenzie Greer

**Background:** Breast cancer is the most commonly diagnosed cancer and second leading cause of death among women in Texas. While the age-adjusted breast cancer rates of incidence and mortality in Texas seem to be lower than that of the US population, the burden of breast cancer is not evenly distributed in the North Texas Counties. This study was conducted to identify breast cancer disparities in these counties.

**Methods:** We utilized various secondary data sources from governmental and non-governmental agencies to compare the breast cancer incidence and mortality rates among North Texas Counties (Collin, Cooke, Dallas, Denton, Ellis, Erath, Grayson, Hood, Hunt, Johnson, Kaufman, Navarro, Parker, Rockwall, Somervell, Tarrant, and Wise). County profile data was used to identify possible risk factors influencing these rates.

**Results:** We discovered that Erath County had the highest age-adjusted incidence rate of breast cancer compared to other North Texas Counties for 2011-2014. Other counties that exceeded the Texas incidence rates were Navarro, Hood, Dallas, Ellis, Tarrant, Collin, Denton, Kaufman, Rockwall, and Parker. On the contrary, for 2011-2014, Parker County had the highest age-adjusted breast cancer mortality rate of 26.3 per 100,000. In addition to Parker County, other counties exceeding the breast cancer state mortality rate of 20.4 per 100,000 were Kaufman, Dallas, Johnson, Rockwall, and Hunt.

**Conclusions:** We found that Erath County had the highest age-adjusted incidence rate of breast cancer whereas Parker County had the highest age-adjusted mortality rate for the same cancer. The increase in breast cancer incidence and mortality rates could be due to lack of early education, mammography referrals, and poor health care access.

Tobacco 21 in San Antonio – Passing and Implementing the Policy, Cara Hausler, MPH, Jennifer Cofer, Boyd Baxter, Jennifer Herriott, MPH, Mario Martinez, MBA, Colleen M. Bridger, MPH, PhD

**Background:** Tobacco use is the leading cause of preventable disease, disability, and death in the U.S., according to the CDC. 95 percent of adult smokers began smoking before age 21. Many smokers move from experimental smoking to daily use between ages 18 – 21. People who have not used tobacco by age 21 are not likely to start. Raising the minimum legal sale age of tobacco to 21 will help prevent young people from starting to smoke and reduce tobacco-related deaths, disease and health care costs.

**Methods:** To assess the local opinion on this policy, an online and paper survey was conducted with 5,447 responses yielding 77.5% support. A steering committee was formed to provide guidance and support the San Antonio Metropolitan Health District (MH) throughout this effort. Over 70 people and 30 organizations helped form a coalition. Public awareness included radio and television interviews and print and social media. 1600 tobacco retailers received invitations to a town hall; over 85 people attended with 53% supportive and 41% opposed. Multiple workgroups were formed to prepare for implementation: education of retailers and community, outreach to other municipalities, evaluation, and diversification of products. Community and retailer input was obtained.

**Results:** January 11, 2018 the San Antonio City Council voted 9 – 2 to enact a Tobacco21 ordinance with an implementation date of October 1, 2018. The community and retailers were provided information and toolkits to prepare for implementation.

**Conclusions:** Health departments and city officials must join efforts with the advocacy community on this policy endeavor. Consistent communication amongst these parties ensures challenges are handled efficiently and effectively. Reducing or eliminating youth penalties in Tobacco21 policies is vital. Implementation plans should be vetted with enforcing bodies; retailers and community members should be engaged in the process; creating workgroups to prepare for implementation was essential.

Healthy Start San Antonio Breastfeeding Survey of Attitudes and Practices, Anne Heine, RD, LD, ScM, DrPH, Kori Eberle, MS, John Duah, MA, MPH, Jonathan Meyer, PhD, LMSW, Amanda Murray, MS, CHES, James Counts, MS

**Background:** Healthy Start San Antonio (SAHS) began in 2001 and is one of 100 such programs nationwide. SAHS strives to strengthen families, empower neighborhoods, and improve health and community services so that all babies have an equal chance to live and thrive. Program participants include pregnant and interconceptional women and children up to age two who reside within areas in San Antonio where infant mortality rates are greater than one and a half times the national average of 6 deaths per 1,000 live births. Program services include pre/postnatal health education, individualized case management, extensive community/neighborhood outreach, fatherhood engagement,
review of fetal, infant and maternal mortality by community experts, quality improvement initiatives, and a coalition of community partners. Promotion of breastfeeding is a program focus. For 2017, 164 of 241 (68.05%) infants were breastfed for any duration and 59 of 169 (34.91%) infants were breastfed at six months. Healthy Start aims to achieve the American Academy of Pediatrics recommendation of exclusive breastfeeding for the first six months and continued breastfeeding as long is mutually desired by mother and child.

Methods: As a first step in the development of breastfeeding promotion strategies, a 22-item survey was devised to assess attitudes and practices. This survey will be administered in Fall 2018 to all pregnant and postpartum SAHS participants. An administration protocol and consent form were also developed.

Results: The survey instruments and the results from approximately 250 participants will be presented. These findings will be used to determine direction of breastfeeding education, services, outreach and collaboration for Healthy Start participants and the community.

Conclusions: It is hoped that this survey will be used as a prototype for organizations seeking to investigate breastfeeding attitudes and practices, and with the findings, will facilitate the development of effective promotion strategies nationwide.

Online SBIRT Training for MSW Students: Confidence and Utilization at 12-months Post-Graduation, Marissa Henderson, MS, Maureen Cuevas, PhD, Rebecca Gomez, PhD, Nancy Amodei, PhD

Background: Screening, Brief Intervention, and Referral to Treatment (SBIRT) is a public health approach to identifying at-risk substance use behavior in order to deliver early intervention and treatment. Our Lady of the Lake University’s (OLLU-SBIRT) SAMHSA-funded SBIRT Competency and Dissemination Project sought to train students of social work in evidence-based SBIRT practices. Findings regarding the trainees’ confidence to implement the various components of SBIRT across time, as well as utilization data post-graduation, will be presented. By the end of this presentation, attendees will be able to define SBIRT and describe its impact on the confidence of social work students to use this intervention in practice.

Methods: Twenty-two students, enrolled in an MSW program at OLLU, were recruited to participate from an online class, Social Work Practice with Hispanic Families. One month prior to the SBIRT training, all students completed a pre-test containing SBIRT knowledge-specific questions and assessing confidence in ability to implement SBIRT in practice. The SBIRT training and curricula, incorporated into an online learning module, was then completed to fulfill a course requirement. Students were e-mailed a link to complete a follow-up survey, equivalent to that administered as pre-test, 30 days following training, and again 12-months following graduation from the MSW program.

Results: Comparing total confidence scores collected at all three time points, a one-way repeated measures ANOVA revealed significant improvements from pre-test to 30-day and pre-test to 12-month, F(1, 21) = 5.29, p<.01, partial η² = 0.20. Observing utilization rates, it was noted that ten of the twenty-two students were using SBIRT at 12-month follow-up. Nine of these students rated this approach either very effective or effective.

Conclusions: The online SBIRT curricula is effectively designed and administered to equip emerging health professionals with the confidence to identify risks for, prevent, and assist in the treatment of substance use disorders.

The Period of PrEP: A Local Effort to Address the Barriers of Accessibility of Preventative Care, Roxanne Hickman, MPH, Yen Le, BS, Kevin Penrod, MA, Sian Elmore, BS, Anita Kurian, MBBS, DrPH

Background: The City of San Antonio Metropolitan Health District (SAMHD) STD/HIV Clinic opened a PrEP Clinic on May 1, 2017 to address the need for additional preventive services in south Texas. 15 months out, the SAMHD Clinic is currently servicing 167 clients through the PrEP program. This presentation will explore the various barriers, and successes, that have been encountered while implementing a PrEP clinic in a public health organization and its implications on reducing HIV incidence in the community.

Methods: The SAMHD PrEP clinic is available to clients of all socio-economic statuses regardless of insurance eligibility, documentation, and/or other factors that may hinder access to care. 96% of the client population are men who have sex with men (MSM), 73% are Hispanic and 51% are uninsured. This presentation will explore the various needs of at-risk clients and the factors that may impede access to PrEP. The barriers encountered by PrEP providers will also be discussed.

Results: Transportation, communication, and education have been the primary barriers for clients of the San Antonio community and the 18 surrounding counties that are currently being serviced by the SAMHD PrEP Clinic. These bar-
riers have also proven to be obstacles for the clinic staff in cultivating relationships with the at-risk communities. **Conclusions:** While implementing a clinic to provide accessible and affordable PrEP to at-risk communities, SAMHD addressed and overcame multiple barriers. SAMHD plans to continue expanding the PrEP Clinic and support other public health organizations that have an interest in starting a PrEP Clinic in their community. PrEP is vital in the fight to end the HIV epidemic.

**Transforming a Health Messaging Campaign through Youth Engagement,** Meredith Howe, BS, CHES

Background: DreamSA originally launched in 2014 as teen pregnancy prevention campaign within the San Antonio Health Department (Metro Health). One Year later, an evaluation of the campaign found that teens liked the message promoting teen pregnancy prevention, however, they wanted to hear more about health, higher education, career and volunteer opportunities as it relates to reaching their goals and dreams. As a result of these findings, Metro Health’s Project Worth program conducted a follow up assessment to help guide the reorganization and rebranding of DreamSA. **Methods:** Qualitative data was collected through a series of student feedback sessions facilitated by Project Worth staff. A total of 281 local students participated and provided feedback regarding their likes, dislikes, and suggestions for the overall look and design of DreamSA, as well as feedback on best ways to communicate and connect with teens. A subset of students also shared what success meant to them, what obstacles they faced, and what resources they were aware of. Data was combined, summarized, and analyzed for reoccurring themes. **Results:** The assessment revealed that students wanted online and face-to-face engagement (i.e. peer to peer), and a DreamSA design that was bright, bold, and represented San Antonio. Both internal and external barriers to success were identified (drugs, stress, pregnancy, money, etc.), as well as common platforms used to find resources (Google, social media, etc.). **Conclusions:** Project Worth re-branded and re-launched DreamSA in the spring of 2017 as an initiative that focuses on educating, connecting, and empowering youth in San Antonio to reach their dreams. Using a mobile friendly website (www.idreamsa.com) and social media, DreamSA connects San Antonio teens to resources in higher education, careers, volunteering, health and well-being, and arts. Other components include face to face DreamSA Empowerment sessions and a Teen Ambassador group to help engage peers.

**As If You Need Another Reason Not to Eat Raw Beef,** Elise Huebner, MS, CPH, CIC

**Background:** Taeniasis is a tapeworm infection, in which transmission occurs by ingesting raw or undercooked meat. In Texas, Taenia was not reportable until 2007. Since 2007, only 13 cases have been reported in Texas. Taenia saginata specifically infects cattle and potentially humans if ingested. Because symptoms may be mild, those infected may not realize the extent of the illness. In December 2017, the Williamson County and Cities Health District (WCCHD) received a positive lab report for a case with Taenia species, with a rule-out of cysticercosis. This case was the first reported in Williamson County since 2012. **Methods:** Because of the opportunity for education and public health intervention, WCCHD responded quickly by requesting medical records and subsequently interviewing the patient. This case experienced symptoms for over six months before seeking medical care, unaware of the severity of the illness or what could be causing her gastrointestinal issues. **Results:** The case stated that, while she does not consume raw pork, she frequently eats raw beef at home and at a friend’s house. She recalled the beef may have had spots on it at the time. She previously had been treated with de-worming drugs several years prior. WCCHD investigator and the case discussed the importance of cooking raw beef and checking all foods for signs of pathogens, if visible. Taenia saginata infections does not cause cysticercosis in humans. Treatment of Taenia was praziquantel tablets. **Conclusions:** The case admitted to eating raw beef frequently, which is most likely the source of the infection. Because she was likely infected at least six months prior to the diagnosis, public health intervention was limited to education to the case.

**Serving the Underserved: Retaining Physicians Who Completed a Visa Waiver Program,** Amanda Ingram, MPH

**Background:** Foreign medical graduates who come to the U.S. for training under the J-1 Exchange Visitor visa must generally return home for two years after completing their education. Each year, the State of Texas may make up to 30 recommendations for waiver of this requirement under the Conrad 30 J-1 Visa Waiver Program. This program requires
waiver physicians to serve full-time in health professional shortage areas (HPSAs) or medically underserved areas (MUAs) for three years.

**Methods:** This project links several years of physician licensure data and the Texas waiver program data to calculate local, regional, and state retention rates of physicians who completed their three-year service obligation in Texas. Additionally, this project will describe and graphically display the distribution and migration of those physicians over time by using cohort and geospatial analyses.

**Results:** This project will indicate whether physicians who complete their service obligations under the program continue to practice in HPSAs or MUAs, as well as highlight any trends in the distribution and migration of these physicians. Historically, a majority of these physicians have continued to practice in the city or county of their service obligation after completing the obligation.

**Conclusions:** These results can be used to evaluate how effectively the visa waiver program addresses the needs of HPSAs and MUAs, as well as inform any changes to the program regarding the eligibility of and priority given to certain physicians and practice locations.

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**Notifying Private Water Well Users about Nearby Groundwater Contamination: The Texas Commission on Environmental Quality’s (TCEQ’s) Role**, Allison Jenkins, MPH, Theresa Hauser, MPH, Darrell McCant, MPH

**Background:** It is estimated that up to 30 percent of US households depend on private wells for drinking water. In Texas, as across the United States, the government does not routinely test private well water to make sure it is safe to drink; private well owners themselves have the primary responsibility. In 2003, the Texas Legislature passed Section 26.408 of the Texas Water Code (TWC). It requires that state agencies notify the Texas Commission on Environmental Quality (TCEQ) if a case of groundwater contamination may affect a drinking water well. In turn, the TCEQ notifies owners of private drinking water wells that may be affected by nearby groundwater contamination within 30 days.

**Methods:** TWC Section 26.408 notices are prepared by the TCEQ Toxicology Division. The notices over the last 10 years (Jan 2007-Dec 2017) were evaluated to determine the total number of mailed notices, most common contaminants, possible sources of contamination, and the location of contamination. Results: Over 4,900 notices were mailed to well owners and well users between January 1, 2007, and December 31, 2017. The most common cases of groundwater contamination triggering notification are those from the TCEQ Remediation Division, including petroleum storage tank and dry-cleaning sites. Contaminants commonly affecting groundwater at those sites include benzene, toluene, ethylbenzene, and xylenes, commonly referred to as BTEX. Notices were more frequently mailed to well owners and users in Harris County.

**Conclusions:** Safe water is critical to public health. The TWC Section 26.408 notification rule is important to educate private drinking water owners and users that there is nearby confirmed groundwater contamination. By providing information on groundwater quality, well owners and users have information they can use to have their water analyzed for contaminants.

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**Exposure to Specific Adverse Childhood Experiences and Use of Protective Behavioral Strategies Among College Student Alcohol Users**, Krupa Jiva, BS (c); Timothy J. Grigsby, PhD

**Background:** Excessive alcohol use at parties has become a normative experience among college students. While several studies have demonstrated a robust relationship between adverse childhood experiences (ACE) and a variety of substance-related behaviors, no studies have examined the relationship of ACE to protective behavioral strategies (PBS)-strategies to reduce harm from alcohol use.

**Methods:** We investigated the relationship between ACE exposure and PBS in college alcohol users. College alcohol users (n=469) at a large, urban public university completed the National College Health Assessment (NCHA) and supplementary items assessing six ACE such as physical/verbal abuse and household member alcohol or illicit drug use. Separate multivariate logistic regression models were used to examine the relationship between exposure to individual ACE and use of 11 PBS at parties involving alcohol use within the past 12 months. Results: The sample was 60.3% female, 52.6% Hispanic/Latinx, and was, on average, 21.9 years old (SD=4.4). Controlling for age and gender, living with someone who used illegal drugs or abused prescription drugs during childhood was associated with a greater odds of alternating between alcoholic and non-alcoholic drinks (OR=1.75, 95% CI=1.01-3.04), eating before and/or during drinking (OR=2.26, 95% CI=1.15-4.45), sticking with only one kind of alcohol (OR=2.49, 95% CI=1.33-4.67) and using a designated driver (OR=1.91, 95% CI=1.02-3.60). Males who, as children, lived with someone who drank too much alcohol were nearly 70% less likely to use a designated driver (OR=0.34, 95% CI=0.12-0.99) or eating before
and/or during drinking (OR=0.31, 95% CI=0.10-0.93) compared to females.

**Conclusions:** These results suggest that living with a family member who misused alcohol or drugs as a child is associated with alcohol related behaviors in young adulthood though findings. Future research should integrate PBS into trauma informed care approaches for young adults who have experienced ACE to reduce harm from normative alcohol use behaviors in college.


**Background:** Rabies is a viral disease of mammals that affects the central nervous system. The virus is most often transmitted through saliva via the bite of an infectious animal. Proper management of exposed individuals includes assessing the risk of infection, determining the proper disposition of the biting animal, and deciding whether rabies post exposure prophylaxis (PEP) is indicated. This assessment is based on the nature of the exposure, the species and risk category of the biting animal, and the availability of the animal for quarantine or testing. This presentation will describe an exposure scenario to two bobcat kittens and the considerations in risk assessment and management for mammals that fall into non-traditional categories.

**Methods:** The presenter will describe rabies risk assessments and the decision-making processes for both patients and public health professionals. The methods in the case investigation process include 1) Receiving/Sending notification of potential rabies exposures; 2) Identifying the risk category of a biting animal; 3) Consultation with the Local Rabies Control Authority to determine proper disposition of the biting animal; 4) Management of quarantine scenarios for non-traditional animals; 5) Follow-up and response to unexpected outcomes.

**Results:** The two bobcat kittens in this scenario were transferred to a wildlife rehabilitation center for 30-day quarantine. After 3 weeks of quarantine, the kittens died suddenly overnight, raising concerns that the kittens may have had rabies and exposed several humans. Testing results ultimately revealed the kittens were negative for rabies. This scenario posed several challenges in balancing the management of non-traditional animal exposures and the influences of social media and public perception.

**Conclusions:** Proper management of rabies cases requires consultation between multiple entities, including public health specialists, animal control authorities, and veterinary healthcare professionals. Rabies prevention strategies and risk assessment guidelines should be emphasized to ensure prompt intervention and judicious use of resources.

**Barriers to Receiving Services Among Families Affected by Birth Defects in Texas, 2017,** Mimi Le, BSA, Jessica Palacios, MPH, Myeshia Roach, MPH, Mark Canfield, PhD

**Background:** Health services for children born with birth defects vary widely within health care systems. Organizational infrastructure and socioeconomic barriers play a role in the access to and outcome of services. Birth defects can be severe, lifelong, challenging, and life changing, often resulting in a substantial loss in quality of life for the children and their families. The Texas Birth Defects Registry (TBDR) collaborates with service coordination teams to identify barriers and needs, and provides the evidence base for evaluating the barriers to services and improve service coordination outcomes.

**Methods:** Two hundred fifty-eight cases of spina bifida, encephalocele, cleft lip, and cleft palate were reported and abstracted from the TBDR. This pilot included children with a 2017 date of birth and appropriate International Classification of Diseases-10 (ICD-10) codes from the database. Department of State Health Services (DSHS) licensed social workers contacted the children’s family by phone or attempted home visits to evaluate their needs, identify barriers, insurance type, and services these families are currently receiving. Subsequently, services were offered and provided as needed. Families who could not be contacted or who have relocated were also identified. Data collected were analyzed by the TBDR.

**Results:** On average, social workers receive cases around the child’s first year of age. Of the 258 cases, 179 (69.4%) families were successfully contacted. The majority of these families (65.9%) reported having at least one barrier to receiving services with financial barriers being the most common (18.6%). Upon contact, social workers were able to refer 77.7% of families to additional services. Case management (62.2%), developmental (43.4%), and family support (38.5%) were the services most frequently referred.

**Conclusions:** We identified services most frequently needed and barriers encountered by families affected by birth defects. This pilot exemplifies how population-based surveillance systems can be helpful for family outreach activities.
Addressing Repeat Teen Pregnancy in Bexar County: Development of an Action Plan, Rhoda Leos, MPH

**Background:** The San Antonio Teen Pregnancy Prevention Collaborative (SATPPC) has been leading efforts to reduce teen pregnancy in San Antonio since 2012. These efforts have included expanding evidence-based programs and strengthening parent-child communication. As a result of this work, the teen birth rates in San Antonio declined 41% between 2010 and 2016. While this was a significant accomplishment, the need to address repeat pregnancies became more prominent as the percent of repeat teen births remained unchanged. In efforts to address this issue, the Project Worth program within the health department (Metro Health) led the SATPPC in a process to develop a community strategy/action plan.

**Methods:** The process to develop an action plan was completed through a series of phases/steps that incorporated multiple community feedback sessions. These steps included conducting a root cause analysis using the social ecological model of health, the identification of themes/clusters of risk/protective factors, the identification of leverage points, and the establishment of a strategy with supporting actions. Qualitative data was collected and summarized for each phase. Participants included SATPPC organizations, community parents, and teen parents.

**Results:** The SATPPC established a strategy around two significant leverage points identified by the community: mental health and long acting reversible contraception (LARCs). In addition to the strategy, SATPPC organizations developed supporting actions and established a target: reduce the percent of repeat teen births to 19% by September 30, 2020.

**Conclusions:** Upon completion of the process and action plan, Metro Health began the work for the established strategy: to provide no-cost long acting reversible contraception and no-cost mental health counseling to teens/teen parents. This involved contracting with University Health System to provide teens with LARCs and behavioral health counseling, as well as contracting with Communities in Schools to provide parenting teens with behavioral health counseling within four school districts.

The Relationship Between Amitriptyline Prescribing and Change in Body Weight in a Free Clinic, Sherry Lin, PhD, MPH, Robert W. Hutchison, Jr. PharmD

**Background:** Obesity is an increasing concern worldwide. Between 1975 and 2014 the global prevalence of obesity increased from 3.2% to 10.8% for men and from 6.4% to 14.9% for women. The United States and the United Kingdom have among the highest rates of obesity in the world: 69% of US adults are overweight or obese, and 36% are obese. Weight gain and obesity are important public health problems, being associated with increased risk of chronic disease and mortality. Once obesity is established, it is difficult to achieve substantial and sustained weight loss. Amitriptyline is approved for the treatment of depression and has many off-label uses including chronic pain management; diabetic neuropathy; fibromyalgia syndrome; insomnia; interstitial cystitis (bladder pain syndrome); irritable bowel syndrome; migraine prophylaxis; post-herpetic neuralgia; and post-traumatic stress disorder. The medication is also very inexpensive.

**Methods:** Using linear regression, we modeled the relationship between the antidepressant, amitriptyline, dosage received by the patient (n=28) and the change in BMI in 3 months after the initial visit.

**Results:** Patients who were prescribed with a higher dosage of Amitriptyline had a significantly lower change in BMI at the 3 months follow up. For every unit increase in dosage, the change in BMI decreases by 0.05 unit. Patients who experienced anxiety symptoms and those who are alcoholic (high alcohol consumer) also have a significantly lower change in BMI at 3-month follow-up compared to those with no anxiety symptoms and those who are not alcoholic.

**Conclusions:** Amitriptyline when prescribed for one of the many indications, may be helpful in concomitant weight stabilization or slight reduction.

Use of IGRA Testing to Identify and Treat Latent Tuberculosis Infection in Binational Contacts Binational Program Esperanza y Amistad, Glenda Lopez, BS

**Background:** Esperanza y Amistad (Hope and Friendship), is the 4th binational tuberculosis prevention and care program in Texas. In 2011, a cooperative agreement between the Department of State Health Services, Public Health Region 8, and the Secretariat of Health in Coahuila, Mexico, was signed and the program began its work.

**Methods:** Interferon Gamma Release Assay (IGRA) tests, specifically the QuantiFeron (QFT) Gold Test, are used
to evaluate all contacts identified during contact investigations for cases enrolled in the program. Once results are received and they are positive, the contact will receive an order for a chest x-ray. Given that the chest x-ray result is normal, the contact will start on latent tuberculosis infection treatment (LTBI). The contact will be evaluated monthly for the duration of the treatment.

**Results:** Program Esperanza y Amistad began testing contacts using QFTs in June of 2016. From June 2016 through September 2018, 543 contacts have been evaluated, of those, 223 (41%) have had positive results. Out of 223 contacts with positive results, 172 (77%) started LTBI treatment with a completion rate of 77% thus far. Latent tuberculosis infection treatment consists of taking 6 months of Isoniazid (INH) 300mg daily. As of April 2018, it was agreed to start offering preventative treatment using Rifampin and 3HP (Rifapentine and Isoniazid).

**Conclusions:** With the implementation of the use of IGRA testing for contacts to binational cases, Program Esperanza y Amistad is contributing to reach the goal of reducing the burden of Tuberculosis disease and infection in the border region of Texas by early detection and treatment of latent TB infection.

**Child's Pose, Carrots, and Canyons: Yoga, Nutrition, and Nature in Community Health,** Anna Macnak, RDN, CDE, Lissette Garcia Rubio

**Background:** Healthy Neighborhoods is a program of the City of San Antonio Metropolitan Health District that is a community-based chronic disease prevention program. The program used community health workers, or promotor(a)s, as educators and community organizers to provide culturally-appropriate resources to the neighborhoods they serve. In March of 2018 the community health worker in the Camelot neighborhood organized a yoga and nutrition class based on the interest expressed by the community members to reach their health goals.

**Methods:** For six months, a group of between 10-20 participants met twice a week to engage in physical activity. One day a week was dedicated to 30 minutes of yoga practice and 30 minutes of nutrition class and one day was dedicated to a hike on a local trail. A pre and posttest was performed to assess the participants’ knowledge, skills, and attitudes toward nutrition and physical activity.

**Results:** At the end of the six month course, participants (n=16) reported positive changes to their nutrition and exercise habits: 100% said they tried making at least one new healthy recipe at home; 25% tried three or more. 100% said they were adding at least a little more vegetables to their diet; 70% said they were adding a lot more. 100% of people who went on the hike said they enjoy hiking (13 of 16 people went). 100% of people who went on the hike said they either probably or definitely will go hiking again. 88% reported improved measurements (weight, A1C levels, cholesterol); 13% reported no change

**Conclusions:** Community-based fitness interventions offered by community health workers can improve individual health outcomes. By being accountable to each other through signed pledges, the participants create a culture of support which will benefit their health and their communities.

**Factors Associated with Attrition and High Adherence in a Cluster Randomized Diabetes Prevention Program in African American Women,** Abdullah Mamun, MS, Leilani Dodgen, MPH, CHES, Heather Kitzman, PhD

**Background:** There are many factors that contribute to successfully achieving weight loss in health programs. Maintaining adherence and low attrition rates are essential for measuring program impact. The objectives of this study were to identify factors associated with attrition and adherence in a diabetes prevention program among African American women in churches.

**Methods:** A total of 221 African-American adult, non-diabetic women were enrolled in a church-based cluster randomized diabetes prevention intervention. Participants received a weekly lifestyle enhancement intervention focused on diabetes prevention for 16 weeks. Attrition was measured at 4-month and program adherence was measured using attendance to the weekly sessions. Decision tree and log-Binomial regression were used to identify factors associated with attrition and adherence after adjusting for demographic, biometric, and psychosocial variables.

**Results:** The average number of classes attended was 11 out of 16. The optimum number of classes to attend for achieving a significant weight loss (about 4% of initial body weight) was estimated at 15 or more classes. Factors associated with optimum attendance levels were high blood pressure (relative risk (RR)=4.2, p<0.05), lower level of spiritual health locus of control (RR=2.9, p<0.05), higher level of stress (RR=1.8, p=0.13), and higher level of body appreciation (RR=1.78, p<0.02). The overall attrition rate was 17% at 4 months. Factors associated with attrition were smoking (RR=2.5, p<0.05), being less than 50 years old (RR=2.0, p=0.10), and low blood pressure (RR=1.9, p=0.10).
Conclusions: This study shows that those who attended more program sessions were able to achieve greater weight loss. Both physiological and psychological factors can be used to predict drop-out, and can assist in developing strategies to increase adherence in individuals at risk for drop-out. Increasing adherence in evidence-based diabetes prevention programs can lead to greater weight loss and chronic disease prevention.

An Examination of Chlorhexidine Resistance Mechanism in Enterococcus faecalis, Prasida Mandapati, BDS, Gordan McLean, DDS, Ransome Van der Hoeven, MSc, PhD

Background: Enterococcus faecalis, a gram-positive facultative anaerobe is an opportunistic pathogen that causes nosocomial infections in hospitals and secondary endodontic infections. Chlorhexidine (CHX) is a commonly used antimicrobial agent that helps reduce bacterial loads. The LiaFSR system in Streptococcus mutans has shown to confer resistance to CHX. Furthermore, in E. faecalis the LiaFSR system promotes resistance to the antibiotic daptomycin. The Incorporation of exogenous lipids such oleic and linoleic acids into the membrane is another mechanism by which E. faecalis confers resistance to daptomycin. Based on these observations we hypothesize the LiaFSR system and the incorporation of exogenous lipids in the membrane of E. faecalis will confer resistance to CHX.

Methods: To determine if LiaR confers CHX resistance in E. faecalis, a Kirby Baur disc diffusion assay was used to compare the zones of inhibition between the wild-type (WT), liaR mutant and the complement strain liaR:: liaR in the presence of CHX and daptomycin. In addition, CHX resistance due to the incorporation of exogenous lipids was determined by a membrane challenge assay using the WT strain of E. faecalis pretreated with oleic acid.

Results: No significant difference in the zones of inhibition was observed between the three strains of E. faecalis in the presence of CHX as opposed to daptomycin. Further, we observed significantly more resistance to CHX in cells pretreated with oleic acids.

Conclusions: The LiaFSR system is not required for CHX resistance, while the incorporation of oleic acids confers resistance in E. faecalis.

Time to Flea: The Distribution of Typhus in Health Service Region 8 From 2014 to 2018, Trevor Maness, MPH, Amanda Kieffer, DVM, MPH, DACVPM, Jaime Ocampozapata, MPH

Background: Murine typhus is a vector-borne disease spread by fleas and caused by the bacteria Rickettsia typhi. Individuals who contract typhus often experience fever and other flu-like symptoms anywhere from 6 to 14 days after exposure to an infected flea. In these individuals, roughly half develop a rash that spreads from the trunk to the limbs. In Texas, typhus is a year-round condition, but occurs primarily in summer and mostly in southern Texas. Public Health Region 8 generally sees few yearly cases of typhus, but in recent years has seen the number of cases doubling year over year and tripling in 2018 (25 cases).

Methods: Confirmed and probable cases of murine typhus were identified using the Texas Department of State Health Services National Electronic Disease Surveillance System for the years of 2014 to 2018. Population estimates from the Texas Centers for Health Statistics were then used to determine the incidence rates of typhus each year. Finally, incidence rate ratios and their corresponding 95% confidence intervals were used to determine differences between each year.

Results: Between 2015 and 2016, Public Health Region 8 doubled its incidence rate from 2.0 cases per million persons to 4.0 cases per million persons. In 2017, the incidence rate nearly doubled again to 7.8 cases per million persons. 2018 saw the largest increase in cases, increasing to 23.9 cases per million persons, a statistically significant increase of just over three times 2017 incidence rate.

Conclusions: Public Health Region 8 is seeing an increase in its cases of typhus and it is unclear what is causing this increase. Factors such as rainfall or temperature may be contributing to this increase, but there are likely other factors that need to be considered. In order to better understand typhus in Region 8, case investigations should collect more information on illness and exposures.

Using a Data-Driven Approach to Target At-Risk Adults for Diabetes Programming, Amanda Manzello, MS, Gabriel Aguilar, BA, Brea Moore, BSPH, Sandra Hermosa, LMSW

Background: One in seven Bexar County residents currently live with diabetes (14%) much higher than the state (11%) and national levels (9%). Additionally, one in eight adults has been diagnosed with pre-diabetes. Health dispari-
ties contribute most to the onset of diabetes, i.e. having Medicaid, age, low income, being uninsured. Using a community mapping tool for San Antonio, Metro Health’s Diabetes Prevention and Control Program could help identify populations with the highest risk for developing diabetes.

**Methods:** Data regarding three socioeconomic indicators: poverty rate, use of public health coverage, and lack of health insurance were retrieved from the 2016 American Community Survey to illustrate areas of highest diabetes risk in San Antonio, Texas by ZIP code. These variables were selected due to the positive correlation between lower socioeconomic status and higher diabetes morbidity and mortality. Variables were entered into a database for analysis and combined to create a risk score for each ZIP code. These scores were used to illustrate relative risk in percentile groups.

**Results:** The program held 66 diabetes prevention and control workshops from October 2017 through September 2018. Out of the 66 workshops, 63 (95%) were implemented within the five highest diabetes risk percentile groups. The majority of the workshops (20) were held in the highest risk, 90th percentile areas. Twelve, five, eighteen, and eight workshops were held in the 80th, 70th, 60th, and 50th percentile high risk areas, respectively.

**Conclusions:** Metro Health staff will continue use of the community mapping tool and all available resources to guide outreach efforts and effectively target populations of high risk due to related health disparities. This data driven approach will increase the probability that those most vulnerable to diabetes and other chronic diseases have access to the resources necessary for successful prevention and management of diabetes.

**Pediatric Invasive Streptococcus Pneumoniae Death in 10 Year Old,** Adriana Massone, MPH, RN, BSN

**Background:** The pneumococcal conjugate vaccine (PCV) is more than 90% effective against invasive disease caused by vaccine serotypes in the pediatric population. Even with this high efficacy, it is estimated that around 200 children die every year from invasive pneumococcal disease. In 2018, a 10-year-old boy died after suffering from meningitis caused by Streptococcus pneumoniae.

**Clinical Case:** The 10-year-old was up to date on his PCV13 vaccines and had a previous history of asthma and a speech delay. He initially presented with symptoms of acute otitis media caused by Streptococcus pneumoniae. The infection eventually spread to the mastoid and into the meninges, causing meningoencephalitis and increased intracranial pressure. The child suffered severe brain injury and was ultimately taken off life support. An isolate obtained from the boy’s cerebrospinal fluid was sent to the Minnesota Public Health Laboratory for serotyping. The isolate resulted positive for serotype 3, a component of the PCV13 vaccine.

**Conclusions:** The PCV13 vaccine helps protect against invasive pneumococcal disease but it does not prevent all cases. The case presented was up to date with his vaccines and did not have any major underlying health issue. This case highlights the need for continued awareness and research on the mechanisms involved in complications of invasive pneumococcal disease.

**Women’s Willingness to Pay for HPV Self-Sampling: Opportunities for Cervical Cancer Prevention,** Sarah Matthes, BA, Morgan O’Neal, BS, Erika Thompson, PhD, MPH, CPH

**Background:** Cervical cancer is largely preventable through screening, including Pap testing and human papillomavirus (HPV) testing. Yet, most women who get cervical cancer are under-screened. Self-sampling for HPV, the causal virus for virtually all cervical cancers, offers a potential opportunity to reach more women. Users may need to pay when this service becomes available. Therefore, research is needed to inform strategies to promote uptake of HPV self-sampling among under-screened women. This study assessed factors associated with willingness to pay for HPV self-sampling.

**Methods:** Women completed an online survey in June 2018 (n=812). The sample included women, 30-65 years old who have never had a hysterectomy. The survey assessed predictors of willingness to pay for HPV self-sampling (Yes/No), including sociodemographic characteristics, perceived benefits, perceived risks, and trusting a healthcare provider. Descriptive statistics were assessed, and logistic regression modeled predictors of willingness to pay for self-sampling using SAS 9.4.

**Results:** Approximately one-third (36.0%) of participants were willing to pay for self-sampling. Women reported being willing to pay an average of $35.12 for testing. Significant predictors of willingness to pay for HPV self-sampling were age, salary, four of six perceived benefits (e.g. ease of use, comfort, autonomy, and not embarrassing), two of four perceived risks (e.g. pain and uncertainty test performed correctly), and trusting information from a healthcare provider. The perceived benefit, ease of use, was the strongest predictor for willingness to pay for HPV self-sampling (OR=3.91, CI 1.80-8.59).
Conclusions: Perceived risks and benefits were predictors of willingness to pay for HPV self-sampling among women. Understanding the perspectives of potential end-users can inform future efforts to utilize innovative approaches for HPV testing, especially among under-screened women.

Benzene Ambient Air Levels: An Index for Air Quality in Texas, Darrell McCant, MPH, Theresa Hauser, MPH, Allison Jenkins, MPH

Background: The Texas Commission on Environmental Quality (TCEQ) has an extensive monitoring network to monitor for many air toxics. Air toxics, also called hazardous air pollutants, are pollutants that are known or suspected to cause cancer or other health effects. Benzene is an example of an important air toxic as it can cause damage to blood cells and is considered a human carcinogen. TCEQ toxicologists use benzene as an index of air quality, evaluating measured concentrations from across Texas. Benzene and over 130 other air toxics data are available publicly for viewing and downloading via the Texas Air Monitoring Information System (TAMIS). The evaluation of measured concentrations of benzene can identify areas that have potential levels of concern and helps the TCEQ to focus resources.

Methods: To assess the potential for measured concentrations of air toxics to affect health and cause odors, monitored concentrations, available in TAMIS, are routinely compared to short-term and long-term screening levels, called Air Monitoring Comparison Values or AMCVs. Screening levels are developed by TCEQ toxicologists via a systematic process. Air monitoring data for benzene concentrations across the state of Texas from 2012-2017 were obtained from the TCEQ’s publicly available TAMIS database and compared to its long-term AMCV.

Results: The average benzene level across the state from the TCEQ’s monitoring network will be presented showing trends in levels in major metropolitan areas. Overall, benzene levels have declined in most areas of Texas. There are no areas in Texas where benzene is consistently above its AMCV.

Conclusions: Air monitoring data, including benzene concentrations, can be used by the TCEQ to assess air quality in the state. TAMIS is a valuable resource for obtaining air quality data, thus, protecting public health and the environment.

Impact and Utility of Whole Genome Sequencing on a Tuberculosis Cluster Investigation in Northeast Texas
Erica Mendoza, Charlotte Gray, Alison Sterken, Mary Pomeroy, Lauren Rosenbluth, Raiza Ruiz

Background: The Texas Tuberculosis (TB) Program was notified of a Large Outbreak of TB in the US (LOTUS) cluster in 2016. G00617 was associated with cases with characteristics associated with poor treatment outcomes or recent transmission, including: homelessness, substance abuse, and cases under five-years-old. The investigation was limited by cases outside the jurisdiction and poor historians. Whole Genome Sequencing (WGS) results were explored to refute or confirm links to this outbreak.

Methods: Between 2014 and 2017, 15 genotyped cases were identified. A call was held to collect epidemiological data on cases. Data, including infectious periods and known epi-links, were analyzed. After identifying commonalities, cases were re-interviewed to establish missing epi-links and assess for transmission sites. Jurisdictions with clustered cases were contacted for data. WGS results for G00617 were provided to the state program and shared with the regional jurisdiction to determine where to focus investigative resources.

Results: Before WGS, the regional jurisdiction confirmed epi-links for 14 of 21 cases. Two additional epi-links were suspected. Of the remaining cases, homelessness and substance abuse were identified as risk factors. Two of these indicated family ties in the outbreak jurisdiction. After WGS, links were confirmed for 20 of 21 cases, an increase of 43 percent. Suspected links were confirmed. Four unknown cases were nearly identical to other outbreak cases. The last unknown case, who indicated family in the northeast Texas area, was not closely related genetically. The regional health department characterized this outbreak as epidemiologically linked household and family transmission. Continued monitoring was recommended.

Conclusions: The discriminatory power of WGS in TB control is far greater than traditional methods. As evidenced by G00617, there is potential to focus investigations within a genotyped cluster to save limited resources, especially when dealing with large, cross-jurisdictional outbreaks.

Factors Associated with Improved Self-Efficacy in mManaging Chronic Diseases, Bhargav Muppaneni, MD, Keya Sen, MS, ChenchChen Yang, MS, Wendy Mincer, MS, Adeyele Adarelegbo, K. Whisnant Turner, PhD
Background: Chronic disease is listed as an important determinant in the utilization of community health resources. In a five-year research project, the original Chronic Disease Self-Management Program was evaluated in a randomized study involving more than 1000 subjects. This study found that people who took the program, when compared to people who did not take the program, improved their healthful behaviors (exercise, cognitive symptom management, coping, and communications with physicians), improved their health status (self-reported health, fatigue, disability, social/role activities, and health distress), and decreased their days in the hospital. Studies by others had similar results.

Methods: The recently initiated North Central Texas chronic disease self-management program is ongoing with over 120 participants who have received the community-based Chronic Disease Self-Management Workshop interventions in such places as senior centers, libraries, senior apartment complexes, and residential care homes. Some of the workshop presenters were lay volunteers from the community, others were volunteers students from a university health science center.

Results: Preliminary indications are that the program is having some positive impact on ability to cope with chronic disease symptoms, improved self-advocacy with physicians regarding their health care needs and mild improvements in commitment to exercising for participants in North Central Texas.

Conclusions: Attendance at Chronic Disease Self-Management workshops run by volunteer lay is achieving some success in interventions specific to chronic disease impacts for populations at risk in North Central Texas.

Awareness and Perception of Child Lead Poisoning in Bakaano Community, a Historic District in the Cape Coast Metropolis of Ghana, West Africa, Alexander Obeng, BSc, MPH (c)

Background: Lead has had devastating consequences on the health of millions of children worldwide. At both high levels of acute exposure and low levels of chronic exposure, lead attacks the brain and central nervous system to cause memory and learning problems, convulsions, behavioral problems and even death. Although many countries have initiated programs to lower the level of lead in the environment, human exposure to lead remains of concern to the health care providers and public health officials in Ghana and the rest of the world. This study aimed at assessing the level of knowledge and perception of childhood lead poisoning among the inhabitants of Bakaano community, a historic district in the Cape Coast Metropolis of Ghana, West Africa.

Methods: A structured questionnaire was used to conduct a house to house survey. A systematic random sampling approach was adopted in selecting the households to participate in the study.

Results: 50 inhabitants participated in this study. 80% of the participants had never heard of lead poisoning. Out of the remaining 20% that had heard of lead poisoning, only 10% had ever tested any of his children for lead poisoning. Also 86% and 84% of the respondents had seen their children eat or put soil and toys in their mouths respectively.

Conclusions: The results of the study clearly indicate that the inhabitants of the Bakaano community lack knowledge regarding childhood lead exposure and subsequent poisoning. Also certain social behaviors of the children in the community puts them at a high risk of been exposed to lead.

Bi-National Coordination Treatment in a Patient Infected with Chronic Chagas Disease, Jaime Ocampo, MPH, Trevor Maness MPH, Amanda Kieffer, DVM, MPH, DACVPM

Background: Chagas disease is caused by a single-celled parasite, Trypanosoma cruzi. It is transmitted to animals and humans by blood feeding insects commonly called triatomine bugs. The disease was once believed to affect only people from Central and South America, especially people living in poor housing conditions. Sampling of Triatomine bugs in Texas indicates that 55% carry Trypanosoma cruzi. Approximately 30% of those infected with T. cruzi and left untreated will progress to the more serious chronic Chagas disease. Estimates of human cases of Chagas disease in the US range from 300,000 to over 1 million, with particular concern for those living in the US/Mexico border regions. From 2013 to 2016, 8 cases were locally acquired in Region 8 out of 20 cases in Texas; 5 cases were imported or unknown out of 91 cases in Texas.

Methods: The Zoonosis Control Program in Public Health Region 8 carries out investigations of persons testing positive for Chagas. In March of 2018, a blood donor lab reported a positive screening for Chagas of a donor. Region 8 made contact with the suspected Chagas disease patient. Serology tests approved by the CDC were performed to confirm the disease.

Results: After testing was performed, the patient was diagnosed with the Chronic Indeterminate phase of Chagas. Unfortunately, the patient did not have health insurance to get the treatment and evaluation of the disease. Through an
established and ongoing partnership, PHR 8 and the Department of Health from Mexico coordinated treatment and medical evaluation for the patient in Mexico.

**Conclusions:** Chagas Disease is a neglected disease in Latin American and US, as a result, the lack of screening before the disease evolves to health complications, can have negative consequences for the health system. Multi-jurisdictional collaboration between health departments can help prevent these consequences and spread awareness.

**The Oral Health Project, Phase 2: Service Learning and Interprofessional Education,** Sherdeana Owens, DDS, MPA, Christina Murphey, PhD, MSN

**Background:** This is a continuing service learning and interprofessional education program, conducted in Corpus Christi. Phase 1 of the program provided oral health education to preschool children in local Head Start Centers using TAMUCC student volunteers. In Phase 2, Nursing and Dental Hygiene students were included in the project to apply fluoride varnish to the children’s teeth. Preschool students are provided with oral health education resources, hygiene supplies, and a Medicaid/CHIPS dental referral list. This important service is free of charge for the preschool children. The program sees over 500 preschoolers per school year.

**Methods:** Interprofessional teams of Health Science, Biomedical Science, and Nursing students, along with Del Mar College Dental Hygiene students now provide both oral health education and fluoride varnish application in Head Start Centers. Administrative students act as project managers and health educators. Nursing and Dental Hygiene students apply fluoride varnish. All students complete the Smiles for Life curriculum and participate in hands-on training exercises. Data collection: number of visual oral exams completed, number of children needing non-routine dental treatment, number of children receiving fluoride varnish application. Parents are notified of exam results and appropriate referrals are made.

**Results:** The goal of this program is to provide a much needed community dental health service, provide a service learning experience for students, and expand the involvement of all health care professionals in oral health care, furthering the goal of incorporating oral health care into overall care. The number of students receiving exams, requiring dental treatment and receiving varnish is tabulated during each semester. The number of children requiring non-routine dental care varies between 15 and 21 percent.

**Conclusions:** Presenting this work will encourage other organizations to utilize students as community resources and view them as an important part of a collaborative team. This model is easily replicated and an effective tool for integrating students into community programming and activities.

**Community Response to HIV Clusters in San Antonio, Texas, 2017-2018,** Andrew Pack, BS, Yvonne Venegas, LCSW, Jesus Ortega, LCSW, Barbara Taylor, MD, MS, Amanda Miller PA-C, Junda Woo, MD, MPH

**Background:** In 2017, San Antonio learned it was home to the nation’s largest HIV cluster, characterized by rapid and ongoing transmission among young Latino MSM (82% under age 30), missed opportunities to diagnose, and a median linkage to care time of 32 days. This presentation addresses our community response in South Central Texas among HIV/AIDS organizations, stakeholders and their community.

**Methods:** The End Stigma End HIV Alliance (ESEHA) coalesced in September 2017 in response to the HIV clusters, joined by every community AIDS service organization, advocates living with HIV, the Ryan White Administrative Agency and Planning Council, academics, clinicians, the local public health department and mental health and substance treatment organizations. ESEHA’s structure is non-hierarchical, and meetings are public. Cohesion and trust increased with transparent communication, third-party facilitation, and agreed-upon goals of health equity, ending HIV-related stigma, and achievement of the Fast-Track Cities Initiative 90-90-90 metrics. Novel elements included a listening tour of 23 community organizations and 198 individuals, primarily youth; formation of a youth planning council to address health disparities, including in mental health; a health equity stipend for ESEHA members unaffiliated with any organization; and engagement by local politicians, including the mayor, county judge and entire City Council in an HIV testing drive called #IKnowMyStatusSA. ESEHA members also acted as ambassadors to create systems changes within their institutions.

**Results:** Our community’s 90-90-90 metrics were 86-72-85 as of December 2016, with an update expected in fall 2018. Sites offering PrEP grew from 4 to 17 since 2016. The county safety-net hospital will start opt-out HIV testing in August 2018. We achieved our goal of 7 days from diagnosis to medical care in the first quarter of 2018, more than 1 year ahead of schedule.
Conclusions: The #IKnowMyStatusSA campaign resulted in 4,000 HIV tests in April 2018, quadruple the usual number, and positivity rates in different geographic areas will help refocus communitywide testing.

Engaging Youth in the Fight Against HIV: The End Stigma End HIV Alliance of San Antonio, Andrew Pack, BS

Background: In 2016, nation’s largest cluster of rapid HIV transmission was in San Antonio, Texas. This network of new HIV diagnoses was dominated by young Latino MSM, 82% under 30 years of age. Youth impacted by the HIV epidemic face stigma and discrimination. They are also rarely included in the design HIV prevention and care interventions, despite data that suggest their inclusion increases impact. To achieve health equity for youth of color, the End Stigma End HIV Alliance (ESEHA) adopted a community-based approach to generating a youth-led intervention plan to improve sexual health and reduce HIV risk in San Antonio.

Methods: We describe grass roots youth engagement efforts to end the HIV epidemic in San Antonio. These began with a Youth Listening Tour in April and May of 2018, where structured small group meetings with 23 youth groups (198 individuals) were used to assess needs, values, priorities, and level of engagement regarding sexual health. Groups were selected to achieve socioeconomic, racial/ethnic, and geographic diversity within the youth of San Antonio. Two members of ESEHA trained in facilitation led the session, one of whom was a person living with HIV for most sessions. The structure of the sessions included a 20-minute non-health focused brainstorming session to identify youth goals, facilitators and barriers to reaching those goals, and who they counted on for support. This was followed by a transition to the topic of sexual health and HIV specifically, led by the ESEHA member living with HIV sharing their story and answering questions. The final 20 minutes of the session were a second exercise where youth shared thoughts about ways to end the HIV epidemic in San Antonio.

Results/Conclusions: Themes that emerged from the general discussion of youth issues included: mental health and stress, particularly surrounding school and work; ambitions regarding college education; and family/friend network support. Innovative suggestions for HIV prevention and treatment in San Antonio were collected and will be fed back to the community at large. Following the Youth Listening Tour, thirteen youth who expressed particular interest in health equity and sexual health presented their viewpoints at a National Association of City and County Health Officials-led facilitation to direct community response to the cluster data. Lastly, a youth health equity council of 19 diverse youth has generated youth-led health interventions.

The Role of the Physical Environment and Private Rooms for Preventing MRSA, Sae-Hwan Park, PhD (c)

Background: Private patient rooms (PPRs) have long been hypothesized to lower the risk of Methicillin-resistant Staphylococcus aureus (MRSA). Moreover, there has been an increasing interest in evidence-based design and how structural elements influence health outcomes. However, evidences have been weak from a policy perspective. Extant literature consists either expert opinions or case studies based on a single hospital. Addressing this gap, we examined the effect of PPRs on the prevention of MRSA infections by analyzing Texas inpatient discharges.

Methods: Data sources included the Texas inpatient data (obtained from Texas Department of State Health Service), American Hospital Association survey, and Hospital Compare database during 2016. Our sample contains 343 hospitals with 2.7 million patients. The dependent variable was the count of hospital-acquired MRSA infections. The explanatory variable was the percentage of PPRs in a hospital. Other model variables included patient mix, hospital characteristics, nurse staffing, occupancy rates, physical space, procedure classes, and average clinical burden. Negative binomial model was fitted for prediction.

Results: Hospitals were grouped into three categories, based on their PPRs. Hospitals with the most PPRs had the lowest MRSA incidence (251 vs 341/536 per 100,000; p<0.0001). Multivariate analysis indicated more PPRs in a hospital were associated with fewer cases of MRSA (Adjusted OR=0.982; p<0.0001). Predictive margin analysis revealed the non-linear, diminishing marginal effects and estimated 87% of reduction of MRSA if a hospital implemented all-PPR facility compared to no-PPR.

Conclusions: Our study found that PPRs were linked to MRSA-safety. Despite costlier nature, the results suggest all-private-room facility is a worthy consideration potentially due to improved safety (fewer adverse events and/or deaths) and financial offsets (lower treatment cost and/or reimbursement penalty). Moreover, this study hints PPRs serve as a good healthcare-safety predictor. Policy makers can consider publicly disclosing hospitals’ private-room percentages for patients to better decide a place to receive care.
Does Cumulative Exposure to Adverse Childhood Experiences Impact Current Substance Use Behaviors in College Students?, Gabriela Paz, BS (c), Timothy J. Grigsby, PhD

**Background**: College students are especially vulnerable to substance use and misuse. To date, only one study has evaluated the relationship between adverse childhood experiences (ACE) and substance use in college students. ACE are traumatic and stressful experiences that occur in childhood (before age 18) that are interrelated and tend to be cumulative. We explored the relationship between cumulative ACE exposure and substance use in a diverse sample of college students in Texas.

**Methods**: College students (n=498) at a large, urban public university in South Central Texas completed the National College Health Assessment (NCHA) and supplementary items assessing six ACE (such as physical/verbal abuse or witnessing parental violence). Separate multivariate logistic regression models were used to examine the relationship between cumulative ACE exposure with past 30-day tobacco, e-cigarette, alcohol, marijuana, hard drug use and past 12-month non-medical prescription drug use (NMPDU).

**Results**: The sample was 60.3% female, 52.6% Hispanic/Latinx, with an average age of 21.9 years (SD=4.4). Cumulative ACE was defined as exposure to 1 ACE, 2-3 ACE or 4 or more ACE. Controlling for age and gender, cumulative ACE increased the odds of past 30-day e-cigarette use (OR=2.07, 95% CI=1.20-3.61) and past year NMPDU (OR=1.43, 95% CI=1.01-2.01), but was not associated with past 30-day tobacco, alcohol, marijuana, or hard drug use. Ethnicity (Hispanic vs. non-Hispanic) did not moderate any of the observed relationships.

**Conclusions**: Our results partially confirm previous findings suggesting that ACE exposed individuals may be more likely to engage in some substance use behaviors. It also appears these relationships may not be specific to specific racial/ethnic groups.

Parental Use of Social Media for Parenting and Infant Health: A Review of the Literature, Kelly Pretorius, MPH, MSN, PNP, RN, Karen Johnson, PhD, RN, FSAHM

**Background**: Sudden Infant Death Syndrome (SIDS) and Sudden Unexpected Infant Death (SUID) is a top cause of infant mortality in the U.S. An increase in unintentional sleep-related deaths highlights the need to disseminate evidence-based information to parents about safe sleeping behavior for infants. Social media is a place where parents/caregivers can share information about safe sleeping behavior and other parenting practices, but little is known about how they are using social media for parenting and infant health. The purpose of this review is to identify the existing literature regarding how parents/caregivers use social media to obtain parenting and infant health information.

**Methods**: We conducted a systematic literature review to identify qualitative and quantitative research studies published between 2004-2018 that pertained to parental utilization of social media for parenting and/or infant health. Findings: Findings from 13 identified studies indicate there is still much needed research in this area. Significant variation in utilization of social media based on ethnicity was identified. Social media use, particularly Facebook is widespread among parents/caregivers and provides support and information. Finally, parents/caregivers are open to being targeted with health information via social media.

**Conclusions**: Given the widespread use of social media among the American public, social media is a tool that can effectively be used to reach parents/caregivers with accurate, evidence-based information about safe parenting practices. More research is needed to understand how social media can be used to address safe sleeping behaviors and specifically how to effectively reach the American Indian/Alaska Native and black communities, who are disproportionately impacted by SIDS. The information gained from this review can be utilized by public health agencies to improve public health messaging, with the goal of positively impacting health outcomes.

THRIVE: The Hunger Reduction in Vulnerable Environments Project in South Carolina, Amber Rahman, Rachael Trudon

**Background**: According to the United States Department of Agriculture (USDA), food insecurity is defined as “A household-level economic and social condition of limited or uncertain access to adequate food.” Nationally, 12% of households are estimated to be food insecure while the rate in South Carolina is higher at 18%. Food insecurity also affects two-and four-year college students as research shows 25% and 20%, respectively, report hunger.

**Methods**: In order to examine perceptions about food insecurity and rates, an online and paper-pencil survey was de-
Utilization of Digital Methods in Managing Public Health Projects, Jorge Reyes, MBA

**Background:** Public health organizations work diligently to use limited resources in the most efficient manner possible and to empower staff to make the greatest impact for their constituencies. Challenges to these objectives include day to day administrative requirements such as maintaining documentation and effective communications among program staff. Many staff hours are spent filling out forms, maintaining and cataloging paper filing systems, and gathering data for analysis. Additionally, physical space limits the number of records that can be kept on-site. The Texas Department of State Health Services Public Health Region 8 (DSHS PHR-8) has begun a process improvement initiative to optimize file management efficiency and information sharing by utilizing available software and technology.

**Methods:** A document scanning process for secure electronic records packaging was developed and implemented. A small-scale database was developed using Microsoft Access and shared among staff to provide a simple, centralized form for record tracking, status updates as well as several reports for cursory data analysis. Existing server assets were used for document storage and record retention.

**Results:** Electronic file scanning and .pdf format file storage allow staff to access documents in both office and remote locations through internal networks or secure virtual private network connections. These pdf files compile patient histories, labs, and investigation notes into a single file that can be easily retrieved, reviewed, edited and perhaps most importantly, collaborated on between staff. Moreover, space previously used for storage of physical paper forms is now available for more productive use.

**Conclusions:** The DSHS PHR-8 initiative has opened new avenues for communicating information and has created a wide range of population groups. Further outreach via educational efforts, policy changes, and awareness are needed to find solutions to prevent hunger.

Assessing Hepatitis B Immunity in HIV Infection, Kathleen Ramirez, ADN, Najma Parvez, MD, Cassidy Dzenowski, PharmD, Andrew Himsel, PharmD, David A. Jacob, PharmD, Joel Massey, MD

**Background:** Persons living with human immunodeficiency virus (HIV) infection are at higher risk for hepatitis B virus (HBV) infection, and have a decreased immune response to the hepatitis B vaccine (HepB), than the general population. Clinical guidelines recommend HBV immunity determination among HIV-infected patients and vaccination of HBV-susceptible patients with HepB. A protocol is needed to determine HBV susceptibility among this high-risk population and identify patients who require additional prevention measures against HBV infection.

**Methods:** We identified patients with confirmed HIV infection at the Central Texas Veterans Health Care System (CTVHCS) during August 10, 2017, through December 15, 2017. We reviewed vaccination history and HBV serology records. We defined HBV immunization as hepatitis B surface immunoglobulin (anti-HBs) level 10 IU/L or evidence of past or current HBV infection. We identified anamnestic immunity among HBV-susceptible patients by using an antigenic stimulus HepB dose followed by post-dose anti-HBs.

**Results:** Of 289 HIV-infected patients, 85 (29%) were HBV-susceptible. Of 40 patients who completed post-stimulus serology, 19 (48%) demonstrated immunity, decreasing the total number of HBV-susceptible patients from 85 to 64 (25% absolute decrease). HBV-susceptible patients with documented HepB vaccination history had 4.3-fold greater odds of anti-HBs conversion compared to unvaccinated patients (95% confidence interval 1.2, 16.6).

**Conclusions:** We developed a protocol to screen for HBV immunity among the CTVHCS population of HIV-infected patients and we decreased the absolute number of HBV-susceptible patients by 25%. Review of HBV immunity among HIV-infected patients identified a susceptible sub-population in need of additional HBV infection prevention measures.
flexibility in conducting business for DSHS PHR-8. Ongoing assessment of the process will further identify areas of improvement and modifications will be made to fit the program’s needs.

Zika Virus Prevention Strategies: A Comparison of Two Community-Based Health Education Models, Monica Ruiz, MD, MPH, Jason Rosenfeld, DrPH, MPH, Juana Escareno, Cristine Leal, MS, Armando Lopez, BS, MPH

**Background:** Reports of locally acquired Zika virus, endemic status of the Aedes mosquito, and lack of treatment and immunization for Zika, constitutes a need for Zika prevention in South Texas. This novel study will be the first ever to compare the effectiveness of utilizing promotoras within two community-based education models, train-the-trainer (TtT) vs. community health clubs (CHC), at increasing knowledge and stimulating behavioral changes to prevent Zika transmission and other mosquito borne diseases.

**Methods:** The study involves in a quasi-experimental design where by promotoras are assigned to CHC or TtT groups in a non-randomized manner (10 in each group). Overall outcome comparison involves 3 study arms: control group (no intervention) vs. CHC vs. TtT. Evaluation involves a demographic survey, pre- and post-intervention knowledge survey, and a CHC focus group. Analysis included basic frequencies and t-tests for continuous variables using STATA.

**Results:** When compared to the control group, the intervention groups had a lower level of education and reported less ZIKV awareness. Overall pre-intervention knowledge on virus identification and prevention was highest in control group (73% of questions answered correctly) and was equivocal across intervention groups (42% and 36% of questions answered correctly in CHC vs. TtT, respectively). CHC focus group assessment identified challenges and solutions to the domestic implementation of CHCs. Furthermore, promotoras cited learning about advocacy, identifying needs and skills within their own community. Post-intervention ZIKV knowledge data analysis is currently in progress.

**Conclusions:** When implementing a domestic CHC provide promotoras a platform for discussion, appoint two promotoras to lead CHCs, provide financial and educational compensation, and do not implement interventions around holidays. Based on preliminary data and direct observation, the CHC is a sustainable community-based education model which can more efficiently utilize promotoras and improve overall community health.

**Objective:** which model is more effective at facilitating behavioral changes to prevent the transmission of mosquito born illnesses in participating households, verified by a pre-post intervention observational survey.

Using Syndromic Surveillance Data to Supplement Flu Reporting, Elise Rush, MPH

**Background:** Public health flu surveillance helps to identify flu outbreaks and characterize the burden of flu. Public Health Region 8 recruits facilities throughout the 28 county jurisdiction to voluntarily report aggregate flu activity data each week; however, participation fluctuates throughout the year. The Texas Syndromic Surveillance (TxS2) system automatically pulls emergency department electronic medical record data elements from participating facilities. This reliable data source can supplement the flu surveillance data already collected from voluntary reporters. This analysis demonstrates that using TxS2 data to supplement voluntary flu surveillance in Region 8 increases the percentage of counties reporting flu activity data year-round. Methods: All 2017 voluntary flu reports were categorized by the month received and the county of the reporting facility. Facilities submitting data to TxS2 at the time of analysis were categorized by county. TxS2 facilities were counted as reporting flu surveillance data each month. The percentages of counties with at least one reporting facility was calculated using only voluntary flu reports and using both voluntary flu reports and TxS2 facilities. The percent change in county coverage due to the addition of TxS2 facilities was also calculated. All analyses were performed using Microsoft Excel 2016. Results: Voluntary flu activity reporting fluctuated throughout 2017, ranging from 29% coverage in July to 86% coverage in November. Including TxS2 data resulted in a range of 46-93% coverage of Region 8 counties. On average, including TxS2 data in flu surveillance lead to a 21% increase in county coverage each month.

**Conclusions:** This analysis demonstrates that TxS2 data will be a valuable source of information for Region 8 when conducting flu surveillance throughout the year, but particularly during months of low participation in voluntary flu surveillance. Additionally, this analysis shows the importance of recruiting additional facilities to submit data to TxS2.

Target: BP - An American Heart Association (AHA) and American Medical Association (AMA) Joint Clinical Care-Centered Program to Improve Blood Pressure Control, A Public Health Challenge, in Texas, Eduardo Sanchez, MD, MPH, Michael Rakotz, MD

**Background:** Based on 2017 guidelines, 45% of adults in Texas (9.4 million Texas adults) have hypertension. The
The prevalence of controlled blood pressure (BP) in persons diagnosed with hypertension may be as low as 50%. In Texas, 13,000 admissions each year are considered avoidable admissions for hypertension. Target: BP is a national joint initiative of the AHA and the AMA that uses the MAP framework, which has been used in South Carolina to improve BP control rates, and practice facilitation to improve BP control in clinical care settings and recognizes excellence in BP control. Healthcare Organizations (HCOs) self-select to participate in Target: BP.

**Methods:** Target: BP launched in 2016. HCOs were recruited by AHA and AMA staff in Texas and other states. Interested practices submitted information regarding total number of adult patients, number of adult patients with hypertension (defined as BP 140/90), and number of patients with hypertension whose BP is controlled (defined as blood pressure < 140/90).

**Results:** 38 HCOs in Texas submitted data. The total number of patients is 2,175,379 (10% of the Texas adult population). The number of patients with hypertension is 574,482. The overall prevalence of hypertension is 26.4%. The mean BP control rate for Texas HCOs is 62%. Nineteen of the 38 organizations reported control rates 70%.

**Conclusions:** Target: BP is a process improvement, quality improvement, and recognition program that has successfully engaged 38 HCOs in Texas serving 10% of Texas adults. The HCOs could benefit from having assessed their BP control rates to adopt MAP to improve from their baseline. Target BP has the potential to reach more HCOs. Target: BP is a program that can meaningfully improve blood pressure control in Texas and reduce avoidable admissions for hypertension and preventable cases of myocardial infarctions, strokes, heart failure, and chronic kidney diseases.

The Relationship Between Eating Episode Frequency and Consistency and Binge Frequency, Caloric Intake, and Body Mass Index in Binge Eating Women

**Background:** Nonpurge binge eating, eating episodes perceived as out of control with a large amount consumed, is associated with obesity as well as other chronic diseases. Although experts dispute how nonpurge binge eating should be treated, some research indicates that establishing a regular eating pattern with a consistent number of eating episodes and limiting the number of eating episodes may be beneficial. Further research is needed to determine effective treatment options for nonpurge binge eating which could improve weight management and reduce chronic disease risk.

**Methods:** A secondary analysis of 14-day food journals was performed to determine the relationship between both the number and consistency of eating episodes compared to binge frequency, caloric intake, and body mass index (BMI). A sample of 69 nonpurge binge eating women kept 14-day food journals. Demographic data as well as the daily number of binge episodes, the total number of eating episodes, and the total caloric intake were recorded for each journal.

**Results:** A significant relationship was found between the number of eating episodes and both binge frequency (r=0.49; p<0.001) and daily caloric intake (r=0.31; p=0.010), but not BMI (r=0.22; p=0.068). Based on an independent t-test, participants with the higher consistency in number of eating episodes had significantly fewer binge episodes as compared to those with the lower consistency in number of eating episodes.

**Conclusions:** These findings indicate that decreasing the frequency of eating episodes may help decrease caloric intake. These findings also indicate that decreasing the frequency of eating episodes as well as increasing the consistency of eating episodes may help individuals struggling to decrease binge episode frequency.

Self-Determination among Transition Age Youth: A Cross-Sectional Investigation

**Background:** Youth with special health care needs are at increased risk of morbidity and mortality due to gaps in care as they transition from pediatric to adult healthcare providers. Theory-driven, evidence-based methods to promote successful transition from pediatric to adult-based care are needed. This study evaluated the utility of using Self-Determination Theory (SDT) to predict transition readiness among transition age youth (TAY) recruited into an intervention to promote successful transition to adult care.

**Methods:** Baseline assessments were administered to 109 patients ages 17-22 years recruited from Texas Children Hospital’s renal (n=34), gastroenterology (GI) (n=41), and rheumatology (n=34) clinical services. Baseline surveys measured transition readiness (Transition Readiness Assessment Questionnaire [TRAQ]) as well as SDT constructs, including competence (Patient Activation Measure [PAM]); relatedness regarding healthcare providers and caretakers/parents (Health Care Climate Questionnaire [HCCQ]); healthcare-related autonomy (Treatment Self-Regulation Questionnaire [TSRQ]); and quality of life (QoL) (CDC’s Health Related Quality of Life [Hr-QoL]). The independent
relationships between SDT constructs and transition readiness were evaluated using linear regression while controlling for potential confounders.

**Results**: Rheumatology as compared to renal and GI patients were more likely to be female (87% vs. 52% and 46%, respectively; p<0.001) and have higher mean transition readiness scores (2.91±0.56 vs. 2.52±0.65 and 2.54±0.68, p=0.30). Age correlated with transition readiness (r=0.465, p<0.001). After controlling for age, gender and clinical service (step 1), competence (p=0.058) as well as healthcare provider (p=0.008) and caretaker (p=0.016) support for healthcare autonomy (relatedness) successfully predicted transition readiness (step 2, R²= 0.473; F change; p<0.001).

**Conclusions**: Findings support the utility of SDT constructs in promoting transition readiness among TAY and underscore the importance of caretaker and provider support (e.g. engaging stakeholders) during this medically and developmentally critical period.

### Public Health 101 Course, A Workforce Training Initiative, Texas Public Health Practice Network

**Background**: In August 2018, the Texas Department of State Health Services established the Texas Public Health Practice Network. Network members include: Texas A&M University Health Science Center; Texas Department of State Health Services; Texas Tech University Health Science Center; University of North Texas Health Science Center; University of Texas Health Science Center at Houston; University of Texas Health Science Center at Tyler; and University of Texas Medical Branch at Galveston. The workgroup was formed in response to a recommendation from the Public Health Funding and Policy Committee that academic and practice partners collaborating to address the public health workforce education and training needs across the state. Goal: The first goal of the TPHPN is to design and execute a Public Health 101 Course. This course will provide the basics of public health using didactic teaching methods, interactive sessions, and discussion-based lessons. The six slated modules are 1) Public Health Principles, 2) Epidemiology, 3) Public Health Law, Policy, and Ethics, 4) Public Health System in Texas, 5) Population Health and Health Equity, and 6) Public Health Interventions.

**Program Implementation**: Modules will be packaged as “toolkits” and taught by academic faculty or doctoral students in-person at the local health departments. Methods of delivery can be customized based on the needs of the instructor and audience. For example, trainings sites could choose an all-day workshop covering all modules or a one hour “lunch and learn” sessions with 1-2 modules each session spanning multiple days. We are currently in the module development phase and would like to start piloting some of the modules in early summer.

### Projecting Texas’ Shortage of Health Care Providers, Matthew Turner, PhD, MPH, Cate Campbell, MPH, Pam Lauer, MPH, PMP

**Background**: The availability and use of ambulatory care services is associated with better health outcomes and lower costs. Yet nationally and statewide, shortages of primary care physicians, psychiatrists, and nurses, prevent consumers from accessing routine care. Such shortages are particularly acute in rural and border areas where there are fewer total providers serving proportionally higher numbers of patients.

**Methods**: Health workforce simulation models, licensed to DSHS by a private contractor, were used to produce supply and demand projections for primary care physicians, psychiatrists, and nurses. These projections utilize Texas license data, population demographics, health outcomes, and behavioral risk factors, and federal health care utilization data, to estimate current county-level supply of and demand for health care providers. The projections run through 2030.

**Results**: Texas is currently facing a shortage of primary care physicians, nurses, and psychiatrists and these shortages are expected to worsen. By 2030, Texas will have enough providers to meet just 88% of patient demand for primary care physicians, 68% of demand for psychiatrists, and 80% percent of demand for registered nurses. The percent of unmet demand is consistently higher across professions for areas of West Texas, East Texas, and the Rio Grande Valley, which could exacerbate health challenges already afflicting these populations.

**Conclusions**: The results are stark and the implications clear: Texas has and will continue to have a shortage of primary care physicians, psychiatrists, and nurses. The state and federal governments support several existing programs exist to incentivize practice in underserved areas, but these programs are insufficient in scope to address the shortage. Scenario-based projections indicate that a combination of efforts aimed at reducing patient demand for health services, including population health approaches, and increasing the educational pipeline of providers will be necessary to mitigate the projected shortage.
Perinatal Hepatitis B Completion Rates for Infants Born in Bexar County in 2015-2017, Andrea Valadez, BA, Rita Espinoza, MPH, Christina M. Carmona, MPH, CIC, CHES, Anita K. Kurian, MBBS, MPH, DrPH, Tom Gonzalez, MLT

**Background:** Hepatitis B is an infection spread by blood or bodily fluids. Infants born to Hepatitis B Surface Antigen (HBsAg) positive women face up to a 90% chance of becoming chronically infected with hepatitis B if appropriate post exposure prophylaxis (PEP) is not provided. The Centers for Disease Control and Prevention (CDC) created the Perinatal Hepatitis B Prevention Program (PHBPP) in order to eliminate the perinatal transmission of hepatitis B. The PHBPP under the San Antonio Metropolitan Health District (SAMHD) case manages infants residing in Bexar County.

**Methods:** HBsAg-positive women are identified during prenatal care, or at delivery, and recruited into the PHBPP for case management of their infants to ensure appropriate PEP measures to include administration of HBIG and completion of the HepB vaccine series. The vaccination guidelines set by the CDC are as follows: a dose within 12 hours of birth, at 1-2 months, and at 6 months of age.

**Results:** A total of 95 infants born to HBsAg-positive women during 2015-2017 were case managed by SAMHD PHBPP. Of these infants, 100% (N=95/95) received the birth dose of HepB and HBIG within 1 day of birth. The percentage of infants who received the second dose of HepB by 2 months of age was 94.73% (N=90/95). The rate of infants who received the third dose of HepB by 6 months of age was 71.58% (N=68/95). Overall, 84.21% (N=80/95) of PHBPP-case managed infants completed the HepB vaccine series by 9 months of age. Of those infants who completed the HepB vaccine series, 76% (N=61/80) completed PVST by 12-months of age.

**Conclusions:** Further work needs to be done to increase compliance rates for timeliness and overall completion of the HepB vaccine series, specifically for infants receiving their third HepB vaccine and completing PVST.

Women Involved in Sex Work at Texas Truck Stops or Women Dating at Texas Truck Stops, Laura Witte, MPH, J. Michael Wilkerson, PhD, MPH, Vanessa R. Schick, PhD

**Background:** Most research with sex workers has focused on human immunodeficiency virus (HIV) and sexually transmitted infections (STIs). Much remains to be learned about the lived experiences and other health outcomes of women involved in transactional sex in truck stops, which they often refer to as dating.

**Methods:** Interviewers conducted semi-structured interviews with 17 women engaged in transactional sex at truck stops in Harris County and Dallas County, Texas in 2017. Women provided pseudonyms. The interviews were recorded and transcribed. Transcribed interviews were coded and charted into an analytical framework matrix to interpret themes. This presentation focuses on elements of the theme Barriers to Improving Life and Health.

**Results:** Homelessness and Housing Insecurity Most of the women interviewed were experiencing homelessness or housing insecurity, which made it difficult to pursue other work, even when they desired to stop dating. It also exposes them to other adverse aspects of homelessness: increased risk of violence, increased risk of infectious diseases, and barriers to accessing healthcare. Unavailability of Employment Some women were ready to quit dating immediately but felt they had no viable economic alternative. Some pursued other forms of employment but dated to supplement low income. Having a felony record seriously limits many of the women’s employment opportunities. Inaccessibility of Healthcare and Social Services Not one woman interviewed had health insurance, and almost all lacked transportation to reach healthcare services. Most shared that they received some services, like STI testing, only while incarcerated. The majority needed but struggled to obtain any form of identification, which is required to access almost all social services.

**Conclusions:** Understanding the context of the women’s work and lives makes evident the need for public health practitioners to meet the women where they are and work collaboratively to meet the needs of the women as they see them.
NOTES

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