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

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# President's Message Bobby Schmidt, MEd

Our nation's public health workforce is dwindling due to budget cuts, permanent elimination of positions, an aging workforce, and other factors. There are inadequate numbers of public health personnel and students in training even to respond to the current demand. Analysts now are projecting a nationwide shortage of almost 100,000 physicians, as many as one million nurses, and 250,000 public health professionals by 2020. Ultimately, if recruitment and retention rates of public health professions do not improve, vacancies resulting from retirement, turnover and other reasons will not be filled.

Finding public health workers as well as leaders is important in part because the field of public health is expanding to take on a greater role in many communities. Public health agencies now have more responsibility regarding emergency preparedness, community outreach, and issues related to an aging population. They need qualified people to fill those responsibilities. Fortunately, the number of students enrolled in schools of public health is increasing (from 16,414 in 2001 to 19,413 in 2005, according to the Association of Schools of Public Health). The increasing need for public health professionals added to the wave of coming retirements, however, means the number of trained workers entering the field of public health looks far from adequate. And when it comes to public health leaders, everyone expects to be scrambling to find qualified people.

One method of preparing qualified professionals entering the field of public health is through a mentorship program. Mentorship refers to a personal developmental relationship in which a more experienced or more knowledgeable person helps a less experienced or less knowledgeable person. Mentoring is a process that always involves communication and is relationship based, but its precise definition is elusive. There are two broad types of mentoring relationships: formal and informal. Informal relationships develop on their own between partners. Formal mentoring, on the other hand, refers to a structured process supported by the organization and addressed to target populations.

The Membership Committee of the Texas Public Health Association is introducing a more formal mentoring process. The process will be structured and supported by TPHA. This new form of mentoring by TPHA is called the Ambassador Program. The Program will be used to mentor new public health

professionals, as well as cultivating public health leaders. More information about the Ambassador Program will be released soon. This will be an innovative approach to



nurturing new health professionals and developing new leaders within the Texas public health system.

I invite you to join us in Arlington, Texas at the Arlington Sheraton Hotel, March  $21-23,\,2012$  for the Texas Public Health Association's - 88th Annual Education Conference.

For more information and to register for the 88th Annual Education Conference go to <u>www.texaspha.org</u>.

Editorial Note: Happy New Year TPH Journal readers! As you read through our winter 2012 issue, please be sure to check out page 14. The Editorial Board invites you to submit papers about public health research done using data available through the Texas Center for Health Statistics (<a href="http://www.dshs.state.tx.us/chs/">http://www.dshs.state.tx.us/chs/</a>). Please encourage your colleagues and students to submit. Accepted papers will be published in a focused issue due for release in spring 2012.

The Editorial Team also invites you to submit your comments about our journal to either tx-pha@aol.com or tphajournal@gmail.com. A recent poll conducted in each state affiliate by Affiliate Affairs at APHA, indicated that some members of TPHA felt our journal could be improved on. Please let us know what your suggestions are. Within our budget constraints and keeping true to our goals and mission, we will do our best to make our journal a publication our members can be proud of. For a recap of those goals please visit the journal page of our website at <a href="https://www.texaspha.org">www.texaspha.org</a>.

Thanks for reading and we hope to hear from you soon. The Editorial Team of the TPH Journal extends our best wishes for a healthy 2012.

#### Commissioner's Comments



## **Healthy Babies, Healthy Texas**

David L. Lakey, M.D.

Commissioner, Texas Department of State Health Services

When expectant parents are asked whether they want a boy or a girl, they often say they just want a healthy baby. It's what every parent hopes for, but unfortunately

it's a simple wish that sometimes does not come true.

As a physician I have taken care of very young children with complications due to prematurity – lung disease, intellectual disabilities, respiratory distress, cardiac issues – and babies who just weren't ready to survive outside the womb. I believe the public health system should come together to help improve birth outcomes. As president of the Association of State and Territorial Health Officials, I have made healthy babies a priority and am challenging other states to take on initiatives to improve health outcomes for infants.

About a year ago a handful of local health departments joined us in collaborating on a big issue that affects some of the smallest Texans: preterm births and infant mortality. We called on small, medium and large health departments from across the state as well as experts from hospitals, health associations, insurance companies, community organizations and other stakeholders to come together for the Healthy Texas Babies initiative.

Healthy Texas Babies focuses on preterm babies and babies who die during their first year of life. The Texas Legislature provided \$4.1 million for the initiative during the last legislative session. We will use the funds to chip away at the factors that play a role in unhealthy birth outcomes. These factors include lack of prenatal care, poor prepregnancy health, cigarette smoking and poor nutrition during pregnancy, and electing to induce delivery before 39 weeks. Our goal is to decrease preterm births by 8 percent over the next two years. This will not only improve the health of the next generation of Texans but also will help save about \$7.2 million in state and federal Medicaid costs. We want to have healthier Texas babies and a healthier Texas. As health commissioner, I have studied the data on prematurity and infant mortality, and it is not where we want it to be.

The infant mortality rate has remained relatively constant in the United States and in Texas. In the United States in 2008 there were 6.6 deaths per 1,000 live births. The rate was slightly better in Texas, with 6.1 deaths per 1,000 live births that year. The rates are higher among African-Americans, with 9.9 deaths per 1,000 live births in Texas.

There has been a slight increase in the number of babies born preterm in Texas, from a low of 12.6 percent in 2000 to 13.2 percent in 2008. The Texas rate is higher than the 2008 national rate of 12.3 percent. African-Americans also carry a disproportionate burden of preterm births, with 17.1 percent in 2008 in Texas. Babies born too early are often too small and underdeveloped to thrive or survive. Infants with low birth weights are at a greater risk for adverse heath outcomes, including death.

Our expert panel convened in early 2011 and had robust discussions about the factors that contribute to preterm deliveries and infant mortality and how best to help families experience healthy pregnancies and births. The commitment and motivation was there. We looked at the evidence. We put together recommendations. We were pleased

to have local health departments at the table. They know what's going on in their communities. They see the effects of healthy and unhealthy choices first-hand in things like teen pregnancy, immunization rates and sexually transmitted diseases, and they can respond quickly. We tapped them for the state effort because they give an on-the-ground perspective and help ensure efforts aren't redundant or misdirected.

Through research and recommendations, our expert panel has helped provide a foundation for the Healthy Texas Babies initiative. We are in the early stages but have a clear plan to use legislative funding to help local coalitions encourage worksite breastfeeding, smoking cessation, parenting skills and other positive changes. Coalitions can provide prenatal and breastfeeding education to expectant parents and information about SIDS and safe sleep practices. They may provide screening and treatment for pregnant women and new mothers who are at risk for depression, education and fatherhood support for new dads, and home visits and nurse consultations for high-risk pregnant women and their infants. Only groups with local health department representation will be eligible for coalition funding. We also will launch a public awareness campaign about the factors that lead to infant mortality and preterm births in Texas.

The public health efforts you carry out every day – flu vaccinations, obesity prevention, smoking cessation, pregnancy and sexually transmitted disease testing – all play a role in improving health outcomes for babies. Some local health departments have even partnered with us to promote Text4Baby, a service that sends free text messages to promote maternal and child health.

Improving birth outcomes is an effort we can all get behind. Public health professionals across Texas can be a visible resource to members of their communities and are well positioned to make a real difference in the health of Texas babies.



## The Evaluation of a Car Seat Installation Education Program: Results of a Pilot Study

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#### ABSTRACT

**Objective:** The use of child safety restraint systems has been shown to reduce the number of childhood fatalities from motor vehicle collisions by up to 70%. The purpose of this study is to determine the most effective teaching method for parents to properly install child restraint seats.

**Methods**: Participating parents were assigned to a "hands-off," "hands-on," or "hands-off & hands-on" condition. Participants completed the initial installation and a brief questionnaire, then returned two weeks later for an unsupervised reinstallation of the car seat and a second questionnaire.

**Results:** Statistically there were no significant differences between condition groups for gender, education, ethnicity, or number of children. Statistical differences were also not present between treatment groups for installation and safety confidence ratings at both Time 1 and 2, but there is a high statistically significant correlation between installation confidence and the number of times the car seat has been installed.

Conclusions: This study is similar to previous research in terms of low percentage of follow-up visits which may point to parents feeling confident enough in their ability to install safety restraint seats not to need a return visit. This lack of follow up points to a need for more effective methods to improve participant retention or the potential need for a one-time education and evaluation project focusing on high repetition and practice installing car seats. Hands-on instruction has been shown to be the most effective treatment in car seat installation studies, but parents are not properly installing safety restraint systems even after receiving this instruction. More research is required to determine the most effective method before a standardized teaching is implemented.

#### INTRODUCTION

Since the 1960's, motor vehicle fatalities have been a significant public health problem, leading to the passing of the National Traffic and Motor Vehicle Safety Act and the Highway Safety Act by President Lyndon Johnson<sup>1</sup>, and the nation's first child restraint law in Tennessee in 1978.<sup>2</sup> Motor vehicle collisions (MVCs) pose an even greater risk to children, where unintentional injuries in MVCs have consistently been among the top 10 causes of morbidity and mortality for infants and children. <sup>1,3-6</sup> In the United States, approximately 100 infants and a total of 1,347 children under the age of 14 were killed in MVCs in 2008, and another 193,000 children under the age of 14 were injured in MVCs during that same year.<sup>3</sup>

The use of child safety restraint systems has been shown to reduce the number of childhood fatalities from MVCs by up to 70% for all crash types. However, research finds that while many parents/caregivers believe that they have installed child safety restraint systems correctly, as many as 85% of the child safety restraint systems have been installed incorrectly by child caregivers. Possible 1.

To educate parents/caregivers about the proper way to install child safety restraint systems, the National Child Passenger Safety Certification Training Program advocates a "Learn, Practice, Explain" teaching modality. <sup>10</sup> In this teaching modality, the car seat technician initially installs the car seat while the parent learns how. The technician then uninstalls the car seat so that the parent/caregiver can practice installing the seat appropriately. Subsequently, the technician discusses any observed deficiencies in the parent/caregiver's installation. Research has demonstrated that this hands-on/hands-off approach to car seat installation is an effective teaching method. <sup>4,11</sup>

Notably, research using other teaching modalities, including the "hands-on/hands-off" approach, has shown low efficacy.<sup>4, 12</sup>

Evidence-based research on the efficacy of different teaching modalities on child safety restraint systems is limited. The purpose of this pilot study was to broaden our knowledge by assessing retention rates on three different teaching modalities for car seat installations so that we could better determine the most effective method for teaching parents how to properly install child restraint seats.

#### **METHODS**

Children's Medical Center Dallas operates weekly car seat inspection stations at three area hospitals. Potential customers are reached through fliers distributed to area physician offices, community events, and pharmacies. Customers must call the car seat line on the flier to schedule an appointment. A certified Child Passenger Safety Technician (CPST) installs the car seats and provides safety education for the parents.

After receiving Institutional Review Board approval, participants were approached during a routine car seat check at the Car Seat Fitting Stations at the Dallas and Legacy campuses of Children's Medical Center. After agreeing to participate, participants were randomly assigned to one of three experimental conditions: **Condition A**, which was a "Hands-off" approach where the parent watched the (CPST) install a car seat, **Condition B**, a "Hands-on" approach where the CPST instructed parents verbally while parents installed the car seat, and **Condition C**, a hybrid "Hands-off & Hands-on" approach where the parents watched the CPST install the car seat, then the CPST instructed parents verbally while the parent installed the car seat. Participants were then asked to respond to a series of questions that included demographic information and several car seat related items.

Each participant was scheduled to return to the fitting station two weeks after the initial installation, and completed an unsupervised reinstallation of their car seat. All participants who returned for the follow-up visit received a monetary incentive. The parent/guardian then completed a final brief questionnaire. Qualified study staff members then reviewed all corrections with the parent/guardian. Any parent who was assigned to Condition 'A' received additional "hands on" instruction on proper car seat installation.

Participants were included in this study if they were 18 years or older at Time 1, were able to return for Time 2 procedures, spoke English or Spanish, could return with the child who was being fitted for the car seat at Time 1, and if the parent/guardian was physically capable of installing the car seat in the vehicle. Participants were excluded from participation if they were unable to meet the inclusion criteria. Data was collected using a self-reported questionnaire collecting data on previous car seat experience, demographic background, education level, gender, marital status, and confidence in installation ability, ability to secure the child safely, and in their ability to determine an appropriate time to change the child's car seat. The primary outcome measure was the parents' level of confidence at installing car seats. This was measured on a 10-point Likert Scale with 10 representing a high degree of confidence.

#### **RESULTS**

Fifty-one participants completed the study at both Time 1 and Time 2 and constitute the focus of this analysis. Approximately 16 percent of

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the participants were male (n = 8), and 84 percent were female (n = 43). Almost eight percent of the participant population had received a high school diploma (n = 4), almost two percent received a GED (n = 1), approximately six percent received technical or vocational schooling (n = 3), almost twenty percent received some college (n = 10), thirty-seven percent finished college (n = 19), and almost twenty-eight percent received graduate or professional degrees (n = 14). The study population was largely white (69%, n = 35), and Hispanic (18%, n = 9), with both Asian and African American representing 3.9 % (n = 2). Almost six percent of the study population reported "other" for their ethnic background (n = 3). Demographic information is found in Table 1.

Almost thirty-two percent of the participants were assigned to both the "hands-off" and the "hands-on" groups (for each group n=16), and almost thirty-eight percent were assigned to the "hands-off/hands-on" group (n=19). Statistically, there were no significant differences between the condition groups for gender, education, ethnicity, or number of children.

Statistical differences were also not present between treatment groups for car seat experience, installation confidence at Time 1 or Time 2, or safety confidence at Time 1 or Time 2. However, the average satisfaction score drastically improved between Time 1 and Time 2 for each of the three condition groups. Install confidence improved by an average of 2.4 points, 2.0 points, and 3.2 points for Groups A, B, and C, respectively. Notably, Group A received the hands-off training, but had a greater improvement than those who received hands-on training. Safety Confidence improved by 3.4, 3.9, and 5.1 points for Groups A, B, and C, respectively. The changes in average installation confidence scores can be found in Figure 1 and safety confidence in Figure 2.

Eighteen people moved the car seat between Time 1, and Time 2, averaging almost one move per week. There was no correlation between the number of times the car seat was moved or the install confidence at Time 1 for the entire sample, but there is a correlation between installation confidence and the number of times the car seat had been moved at Time 2 (p < 0.01). This likely points to familiarity with installation/re-installation and becoming more confident with repetition.

#### DISCUSSION

The results of this study are similar to other studies evaluating the efficacy of child restraint teaching modalities in that the study population was predominately female, 4.13 highly educated, 4.11.14 and white. 11.14 While this is not reflective of the demographic makeup of the Dallas area as a whole, or the patient population in which Children's Medical Center serves, it may show a bias toward more affluent families who have access to cars and car seats. Research has consistently shown that certain ethnicities are at a higher risk for incorrect use of child safety restraints 15 and both education level and household income are negatively correlated with proper safety restraint use. 13 Clearly, more efforts need to be directed toward identifying and addressing these problems in less affluent, ethnically diverse communities.

This study is also similar to previous research studies in terms of low percentage of follow-up visits, with return rates in the literature as low as 26%.<sup>14</sup> This lack of follow up may point to parents feeling confident enough in their ability to install safety restraint seats so that they do not feel a need to a return for a second visit. Although more research is needed to assess factors associated with low return rates, there appears to be a need for more effective educational methods to improve participant retention, or the need for a one-time education and evaluation project.

**Table 1. Demographic Information** 

| Condition            | Hands-Off | Hands-On | Hands On & Off | <u>Total</u> |
|----------------------|-----------|----------|----------------|--------------|
| N                    | 16        | 16       | 19             | 51           |
| Gender (M:F)         | 1:15      | 4:12     | 3:16           | 8:43         |
| Education            |           |          |                |              |
| GED                  | 1         | 0        | 0              | 1            |
| High School          | 1         | 1        | 2              | 4            |
| Technical/Vocational | 1         | 1        | 1              | 3            |
| Some College         | 2         | 2        | 6              | 10           |
| Completed College    | 7         | 6        | 6              | 19           |
| Graduate/Post Gradua | 4         | 6        | 4              | 14           |
| Ethnicity            |           |          |                |              |
| African American     | 0         | 1        | 1              | 2            |
| Asian                | 1         | 1        | 0              | 2            |
| Hispanic             | 3         | 1        | 5              | 9            |
| Other                | 0         | 2        | 1              | 3            |
| White                | 12        | 11       | 12             | 35           |

Data represents whole numbers.

Figure 1. Average Install Confidence between Time 1 and Time 2

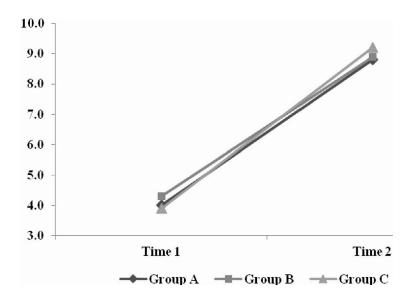
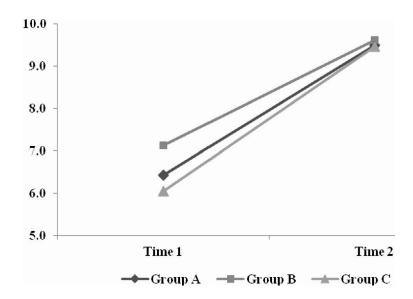


Figure 2. Average Safety Confidence between Time 1 and Time 2



This study failed to address the retention or the efficacy of an educational method on increasing a parent's ability to properly install a child restraint system, but the theory of returning after a specific time period to demonstrate retention is a relatively new educational approach within car seat installation research. The gap between Time 1 and Time 2 contributed to a low volume of participants who completed both sessions, and resulted in a study that is not adequately powered to show statistical differences between these groups. While the use of a pre-test/post-test design requiring parents to return to the car seat fitting station is optimal for determine learning retention over time, many participants did not show up for both visits. A one-time pre-test/post-test assessment on the same day as the installation may have been a more effective evaluation method to test proficiency.

The use of child safety restraint systems is vital to the safety of child

passengers, but the misuse of these restraints or the improper installation of them can result in head, facial, abdominal, shoulder, and even spinal injuries in MVCs.  $^{9.11}$  This is particularly relevant in Texas which has consistently ranked among the top states for childhood traffic fatalities for children under the age of  $14.^3$  In 2008, Texas was tied with California and Georgia with the highest number of traffic fatalities for children under 1 year old (n = 8), first for children aged 1-3 (n = 43), first for ages 4-7 (n = 36), and second (n = 67) only to California (n = 76) in children ages 8-14 years.3 Texas also ranks the highest in the overall number of childhood traffic fatalities (n = 154) with California (n = 142) and Florida (n = 73) following.  $^3$ 

This study has several additional limitations, namely in the research design. While the study had three randomized treatment arms, the technicians felt it was unethical and inappropriate to assign a par-

ent to a "hands-off" treatment group. As a Level I trauma center, the Injury Prevention program is required to conduct community outreach and education. The assignment to a "hands-off" arm was counterproductive to the hospital's efforts in teaching and preventing injuries. Because a "hands-off" approach may have actually been harmful to the community, the technicians provided car seat installation education to parents when needed (and regardless of the research protocol) since this educational intervention had the potential to save lives. Accordingly, ethical concerns trumped the research protocol, which in turn, may have yielded data that was more favorable to the hands-off group. This may have accounted for the bigger increase in installation confidence found in the hands-off group compared to the hands-on group.

Lastly, we did not test whether the parents could effectively install a car seat to pass inspection. We only tested the level of confidence to install it correctly. While confidence levels improved from Time 1 to Time 2, we do not know how effective our education program was in actually teaching proper techniques.

In conclusion, although hands-on instruction has been shown to be the most effective educational approach in car seat installation studies, parents are, by in large, not properly installing safety restraint system even after receiving hands-on instruction. Educating parents on the proper installation of car seats and booster seats is a vital component to effective injury prevention initiatives, and efforts should be made to adequately ensure parents are both learning proper techniques, and can demonstrate installation procedures adequately. The relationship between confidence and the number of times a seat was moved illustrates that teaching efforts should be geared toward a hands-on/hands-off method with repetition. At the same time, education efforts should not stop at the initial car seat, but should be provided for each of the car seats utilized as children grow.

Several studies show efficacy of public awareness campaigns in improving the use of child safety restraints. 16,17 However, the overwhelming theme within the literature points to an increase in the use of restraints, but an alarmingly high rate of incorrect installation exists within the literature. 48,9,12 We know that parents need to understand and have the ability to properly install car seats for the protection of their children. We also understand that teaching methods geared toward a "hands-on/hands-off" approach are more effective teaching modalities, and education programs geared toward this teaching method are needed. More research is required to determine the best and most effective method before a standardized teaching is implemented.

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This challenge is supported by the Skoll Global Threats Fund and offers up to \$150,000 in prizes.

For more information and to register, visit www.APHAFluChallenge.org

# The Assocation Between Anti-Energy Drinks and Illicit Drug Use Among Fifth Ward Houstonian Youth

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#### **ABSTRACT**

This study offers secondary analysis of cross-sectional data collected between November 2009 and December 2009 from 141 male middle and high school students participating in the Fifth Ward Enrichment Program (FWEP) in Houston, Texas, regarding their use of anti-energy drinks, that is, concoctions containing ingredients such as melatonin or valerian root which create a relaxing feeling among users. Anti-energy drink users were significantly more likely to drink alcohol (43.9% vs. 13.1%; p=0.00), smoke marijuana (48.8% vs 9.6%, p=0.00), and abuse codeine promethazine cough syrup (61.1% vs. 7.9%; p=0.00), crystal methamphetamine (54.5% vs. 15.8%; p=.00) and Viagra (57.1% vs. 17.2%, p=.00) compared to their counterparts who did not drink anti-energy drinks in the past 30 days. Logistic regression analyses indicated that anti-energy drink use was significantly associated with current alcohol (Adjusted odds ratio (AOR) =3.68, CI= 1.22-11.09, p=.02) and codeine promethazine cough syrup use (AOR=9.76, CI= 2.89-32.87, p=.00), after controlling for concomitant drug use. The over-the-counter sedatives in anti-energy drinks such as valerian root and/or melatonin are referred to as "downer" drinks, a term which may reflect their similarities to opiates (codeine promethazine) and depressants (alcohol). Therefore, the authors believe that anti-energy drinks are being used to achieve similar euphoric effects.

#### INTRODUCTION

Codeine, a naturally occurring narcotic, is generally used for pain control and as an antitussive agent in prescribed cough syrups.<sup>1</sup> Promethazine hydrochloride is a phenothiazine derivative used in cough syrups for its antihistaminic, antiemetic, and sedative effects.2 The combined abuse of these two drugs in prescribed cough syrup taken along with alcohol prolongs and intensifies each drug's sedative effects and is responsible for an increase in life-threatening events.<sup>3,4</sup> The drug of choice for many teens and young adults living in the southern United States is cough syrup containing codeine and promethazine hydrochloride, known on the streets as "lean," "barre," "oil", "purple stuff," and "drank". There is a paucity of research conducted about the misuse of codeine and promethazine hydrochloride containing cough syrup. Some of the earliest work on the "misuse of opioid cough syrup in Houston" was conducted by Elwood who published ethnographic data from interviews with 25 adults, African American and Anglo men and women from 18 to 50 years, who were abusers of the drug.6 The research also described how nightclub goers mixed codeine cough syrup with cocktails or soft drinks while persons who used multiple drugs, especially crack cocaine, drank their codeine cough syrup undiluted and publicly in a Styrofoam cup.6 It was also reported that the popularity of the drug's illicit use caused a dramatic increase in its street price. The qualitative nature of Elwood's work limited its generalizability; however, the study did show that, at that time, the emerging codeine cough syrup problem crossed sociodemographic groups and Houston neighborhoods<sup>6</sup>. A Texas Commission on Alcohol and Drug Abuse study showed that among the 17 percent of prison inmates reporting use of opiates other than heroin in 1998, the most popular opiate used was codeine cough syrup (38%). The report also cited the popularity of dipping marijuana cigarettes in codeine cough syrup.<sup>7</sup>

A later study conducted by Peters et al. 8 reported that 25% of at-risk Houstonian youth self-reported lifetime codeine syrup use, while 10% reported having used codeine cough syrup within the 30 days preceding the interview. High social approval for this drug combination has been cited in research conducted among southern teenagers and youth adults. 9-12

In recent years, several corporations have trademarked the popularity of the street-terms for codeine promethazine and manufactured antienergy drinks with names such as "Drank<sup>TM</sup>", "Sippin' Syrup<sup>TM</sup>," "Purple stuff<sup>TM</sup>", and "Lean<sup>TM</sup>", all off which contain the active ingredients valerian root and/or melatonin which have historically been used as non-prescription and over-the-counter sedatives for insomnia. 13,14 These anti-energy drinks are touted on their outer labels and bottles as having the ability to "slow your roll", cause one to "lean with it", produce "euphoric thoughts", and as a "slow motion potion" imitating the euphoric effects as well as street names known to Southern youth for codeine promethazine cough syrup.9 These anti-energy drinks are made and marketed to mimic illicit codeine cough syrup concoctions that may be mixtures of codeine cough syrup and cocktails or soft drinks. They are available in locations accessible to the general population, including youth, such as convenience stores, gas stations, etc.

The use of anti-energy drinks has been meagerly investigated and, to date, we are unaware of studies that have investigated the relationship between anti-energy drinks and other substances of abuse. In the present cross-sectional study, a survey was conducted with Houstonian inner-city middle school and high school level boys only to investigate if a relationship exists among concurrent use of anti-energy drinks and other drugs of abuse.

#### RESEARCH METHODS

#### Study Sample

This study offers secondary analysis of data collected through the Fifth Ward Enrichment Program (FWEP) in Houston, Texas, between November 2009 and December 2009. The FWEP is a local, private non-profit agency located in the northeast section of Houston, Texas, called Fifth Ward. This area consists of nearly 20,000 residents. The target population for FWEP is low-income predominately African American and Latino male youth ages 9 to 19 years old. According to the U.S. Census Bureau, 15 Fifth Ward residents have lower high school graduation rates (37.4%) compared to the total United States population (80.4%). In addition, approximately 50% of

Fifth Ward households have an annual household income of less than \$20,000. Data were collected via a cross-sectional survey from 141 male students between 7th and 12th grades attending 2 middle and 2 high schools located in Fifth Ward.

#### Instrumentation

The FWEP Independent Review Board and the Houston Independent School District's research department approved the student survey and the use of active consent. A letter explaining the purpose and content of the survey signed by the school principal was sent to parents prior to its administration. Parents were asked to return the signed letter to the school if they agreed or did not agree for their child to participate. Research staff received instructions for administering the surveys in a standardized manner. The importance of the study and the procedures to assure confidentiality were explained to students. Students who did not want to participate or whose parent(s) denied consent by returning the signed letter were provided optional activities while the survey was being administered. Trained data collectors administered surveys to students after school. The survey took approximately 35-50 minutes to complete. To obtain the maximum number of student responses, reasonable efforts (at least two attempts within a two-week period of the original study date) were made to locate and survey students who were absent during the scheduled survey administration days.

#### Measures

Male youth were asked, "In the last 30 days have you use any antienergy drinks such as "Drank", "Sippin Syrup," "Purple stuff", and "Lean" (dependent variables). For the purposes of this study, classifications of anti-energy drink use were defined dichotomously by a "yes" or "no" response. In addition, male youth were asked to self-report 30-day usage (independent variables) of a myriad of trendy drugs used by youth: alcohol, marijuana, codeine cough syrup, crystal methamphetamine, and Viagra, the generic form of which is sildenafil and which has recently been identified as a prescription drug of abuse among teenage boys. 16,17

Both univariate and multivariate analyses were conducted in order to describe the study population. Both Fisher's exact and Chi-square tests were conducted in order to examine the association between anti-energy drinks and drug use; alpha was maintained at 0.05 in all cases. Drugs which were found to have a significant bivariate association with anti-energy drinks in the past 30 days (alcohol, marijuana, codeine promethazine cough syrup, crystal methamphetamine, and Viagra) were then entered simultaneously into regression models predicting past 30-day anti-energy drink use.

#### **RESULTS**

#### **Descriptive Statistics**

As shown in Table 1, the majority of males self reported being African American and most were 13 to 18 years old. Approximately 22% self-reported using anti-energy drinks in the past 30 days. In addition, there were self reports of other drugs of abuse: codeine promethazine, alcohol, marijuana, crystal methamphetamine, and Viagra. As shown in Table 2, anti-energy drink users were significantly more likely to use alcohol, marijuana, codeine promethazine cough syrup, crystal methamphetamine, and Viagra than their counterparts who did not drink anti-energy drinks in the past 30 days.

Table 1. Demographic and Descriptive Sample Statistics of Fifth Ward Houstonian Youth (n = 141)

|                         | n   | Percent |  |
|-------------------------|-----|---------|--|
| Race/Ethnicity          |     |         |  |
| African American        | 100 | 70.9%   |  |
| Hispanic American       | 18  | 12.8%   |  |
| White American          | 6   | 4.3%    |  |
| Other                   | 17  | 12.0%   |  |
| Age                     |     |         |  |
| 11                      | 2   | 1.5%    |  |
| 12                      | 8   | 6.0%    |  |
| 13                      | 18  | 13.4%   |  |
| 14                      | 11  | 8.2%    |  |
| 15                      | 15  | 11.2%   |  |
| 16                      | 22  | 16.4%   |  |
| 17                      | 21  | 15.7%   |  |
| 18                      | 28  | 20.9%   |  |
| 19                      | 8   | 6.0%    |  |
| 20                      | 1   | 0.7%    |  |
| Substance Use           |     |         |  |
| (Last 30 days)          |     |         |  |
| Codeine promethazine    | 36  | 25.9%   |  |
| Anti-energy drinks      | 30  | 21.9%   |  |
| Alcohol                 | 38  | 27.3%   |  |
| Marijuana               | 44  | 31.7%   |  |
| Crystal methamphetamine | 23  | 16.7%   |  |
| Viagra                  | 15  | 10.9%   |  |

Table 2. Prevalence of past 30-day anti-energy drink use by drug use in past 30 days

| Drug Use   | Anti Energy Drii | nk Use     | P<br>Value |
|--|------------------|------------|------------|
|  | Yes<br>N %       | No<br>N %  | Value      |
| Alcohol<br>Past 30 Days                                | 17 (45.9%)       | 13 (13.1%) | P=0.00     |
| Marijuana<br>Past 30 Days                              | 21 (48.8%)       | 9 (9.6%)   | P=0.00     |
| Codeine<br>Promethazine<br>Cough Syrup<br>Past 30 Days | 22 (61.1%)       | 8 (7.9%)   | P=0.00     |
| Crystal<br>Methamphetamine<br>Past 30 Days             | 12 (54.5%)       | 18 (15.8%) | P=0.00     |
| Viagra<br>Past 30 Days                                 | 8 (57.1%)        | 21 (17.2%) | P=0.00     |

Table 3. Logistic Regression on Reported Past 30-day Anti-Energy Drink Use and Past 30 Drug Use among Fifth Ward Houstonian Youth

|                                     | AOR* | 95% CI <sup>+</sup> | P    |
|-------------------------------------|------|---------------------|------|
| Alcohol                             | 3.68 | (1.22-11.09)        | 0.02 |
| Marijuana                           | 2.10 | (0.73-7.99)         | 0.14 |
| Codeine Promethazine<br>Cough Syrup | 9.76 | (2.89-32.87)        | 0.00 |
| Viagra                              | 0.83 | (0.17-4.04)         | 0.82 |
| Crystal<br>Methamphetamine          | 1.14 | (2.8-4.61)          | 0.85 |

<sup>\*-</sup>AOR is defined as adjusted odds ratio

#### Logistic Regression

After controlling for other drug use, logistic regression analyses indicated that anti-energy drink use was significantly associated with current alcohol and codeine promethazine cough syrup use (Table 3).

#### DISCUSSION

Male students who self-reported drinking anti-energy drinks in the past 30 days were more likely to have used alcohol, smoked marijuana, and abused codeine promethazine cough syrup, crystal methamphetamine, and Viagra compared to their counterparts who did not drink anti-energy drinks in the past 30 days. Logistic regression analyses indicated that 30-day anti-energy drink usage was significantly associated with current alcohol and codeine promethazine cough syrup use.

Because melatonin is not approved as a food additive, its use in antienergy drinks may be challenged by the Food and Drug Administration (FDA). The makers of the relaxation drink Drank<sup>TM</sup> were warned by the FDA about its use of melatonin, leading the manufacturer to label it as a dietary supplement rather than a beverage. <sup>18</sup> Further, the marketing of these products with names that are similar to or like their street names and their availability to children may increase their social acceptability and later illicit use of codeine cough syrup, as has been demonstrated with candy cigarette use in which a history of their use is associated with an increased risk of ever and current smoking among adults. <sup>19</sup>

The research on anti-energy drinks is extremely limited. It is an area of research that merits closer attention. The literature indicates that

<sup>+-</sup>CI is defined as confidence interval

how messages are communicated to the target audience makes an enormous difference in whether they will be attended to and the extent to which they will make an impact. <sup>20,21</sup> Corporate anti-energy drink messages framed with "credible" street names and slogans associated with codeine promethazine (e.g., "slow your roll", "lean with it", "euphoric thoughts", and "slow motion potion") can have an enormous effect on youths' perceptions and decision making to use these substances. <sup>22-24</sup>

Anti-energy drink use was highly associated with other illicit drug use. After controlling for concomitant drug use, anti-energy drink users had significantly greater odds of using alcohol and codeine promethazine cough syrup. Interestingly, anti-energy drinks have been touted in the media as "downer" drinks, perhaps giving reference to the similarity that exists with their ingredients and opiates (codeine promethazine) and depressants (alcohol).<sup>25</sup> Therefore, the authors believe it is possible that they may be used to achieve similar euphoric effects.

There are several limitations to the following study. Given that the data were collected using a cross-sectional study design, it is difficult to evaluate the directionality of effect. Consequently, this paper highlights the need for larger cohort studies among urban populations to examine the precise nature of the causal relationship. Secondly, participants in this study were recruited from 2 middle and 2 high schools located in Fifth Ward, Texas. The results are not generalizable to similar populations in other areas in Texas or in the United States, where regional differences exist. Larger studies will have more accurate estimates of the prevalence and effects of anti-energy drug use on other drug use.

Nonetheless, the information gleaned from this and future research will provide strategic guidance in understanding the effects of antienergy drinks on youth. We hope that the findings will be used when developing and implementing culturally and linguistically appropriate prevention and cessation campaigns for adolescent consumers.

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## Smallpox inoculation and the Ottoman contribution: A Brief Historiography

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#### INTRODUCTION

Smallpox was a highly contagious and virulent disease with such clear and characteristic clinical signs that its appearance in a community caused widespread terror. Over millennia it caused disastrous epidemics that took more lives than all of the twentieth-century carnage in wars. By the early 19th century it was accepted that while the disease had no known cure, it was preventable. In 1806, President Thomas Jefferson wrote to Edward Jenner, the developer of the smallpox vaccination, "Future generations will know by history that the loathsome smallpox existed."

Smallpox (*Variola major*) was probably one of the first human zoonotic infections. Molecular analysis indicates that its closest relatives are the gerbilpox and camelpox viruses, suggesting that all three recently arose from a common ancestor. Crawford (2007) argues from this evidence that it could only become a human pathogen where populations were large enough to sustain transmission, probably in the large river valleys (including the Euphrates, Tigris and Nile) of early civilizations. She suggests that the most likely scenario is that an ancient rodent virus jumped to humans and camels some 5,000-10,000 years ago. <sup>18</sup>

In its most virulent form smallpox is fatal to upwards of 25% of its victims. It was rivaled only by plague as a source of terror in medieval and ancient times. For over three millennia, smallpox in fact caused more fatalities than the plague. Some of the famous historical figures who presumably contracted smallpox include Ramses V of Egypt, Abbasid Caliph Abu al-Abbas al-Saffah (An Abbasid Ruler of Egypt and the Levantine), Peter II of Russia, U.S. Presidents George Washington, Andrew Jackson, and Abraham Lincoln, and Soviet leader Josef Stalin.

Smallpox first appeared around 10,000 BC in farming settlements in northeastern Africa and spread to India via Egyptian merchants in the last millennium BC. Skin lesions resembling that of smallpox have been found on the faces of mummies buried between 1570 and 1085 BC. Ramses V, who died as a young man in 1157 BC, is a suspected smallpox victim. An epidemic thought to be smallpox was introduced to the Roman Empire in 165 A.D by Roman legions returning from campaigns in Mesopotamia and the Near East. The Greek physician Aelius Galenus lived through the scourge and remarked in his treatise Methodus Medendi about its symptoms which included fever and pustules. For almost two decades, the Plague of Antonius – as the disease was called – swept through Rome's imperial domains claiming three to seven million victims, including the Roman Emperor Marcus Aurelius. Evidence of smallpox was also found in the Athenian historian Thucydides' description of the mysterious "Plague of Athens" as recounted in his History of the Peloponnesian War. He described the coming of an epidemic disease that originated from Abyssinia,3

"And then descended into Egypt and Libya and spread over the greater part of the King's territory. Then it suddenly fell upon the city of Athens, and attacked first the inhabitants of the Peiraeus, so that the people there even said that the Peloponnesians had put poison into their cisterns; for their were as yet no fountains there. But afterwards it reached the upper city also, and from that time the mortality became much greater." <sup>4</sup>

Thucydides noted that those who survived the illness later appeared to be immune to it. He continued, "...I shall describe its actual course, explaining the symptoms, from the study of which a person should be best able...to recognize it if it should ever break out again. For I had the disease myself and saw others sick of it."

#### Smallpox and the Middle East

One of the earliest written texts on smallpox was in the late ninth or early tenth-century CE. The Persian physician Abu Bakr Muhammad ibn Zakariya al-Razi, better known in the medieval West as 'Rhazes,' wrote a medical treatise titled *Kitab al-gudari wa'l-hasbah* [The Book of Smallpox and Measles]. It represented the most advanced state of medicine at that time with regard to smallpox. The work analyzes the causes and prevention of smallpox epidemics. It also mentions the general evolution of the disease and divulges the therapy of smallpox that included diet. Among the ancients, diseases were defined in terms of symptoms. By differentiating between smallpox and measles, Rhazes provided a paradigmatic case for thinking in terms of specific disease entities. His explanation of why survivors of this disease did not succumb to the disease a second time was the first theory of acquired immunity. <sup>5</sup>

Possibly the first recorded smallpox epidemic occurred in 1350 BC during the war between the Hittite Empire and Egypt. Many of the Egyptian prisoners carried this disease that would inevitably ravage the Hittite heartland and lead to the death of Hittite King Suppiluliuma I and his successor, Arnuwanda II. <sup>6</sup>

Smallpox also played a major factor in decimating the Ethiopian invaders of Mecca in Arabia during the so-called Elephant War in 568 AD. The Ethiopian soldiers were afflicted by a harsh illness that was characterized by a rash that destroyed the invading army and halted Ethiopian rule in Arabia.<sup>7</sup>

#### Smallpox and the Ottoman Empire

Vaccination with smallpox was recorded in 1,000 BC in China and India, where healthy subjects were inoculated with scabs or pus from previous victims that produced a milder form of the disease than the naturally occurring version.7 In China, powdered scabs of smallpox pustules were blown into the nostrils of healthy persons through a tube. From China, nomad merchants passed on the practice to Circassians in Georgia, who transmitted it into Persia, the Levant, Arabia, Egypt and Anatolia. Circassians caused an irritation on the skin and applied a thread soaked with variolic pus to the affected area. The most common form of variolation in India was the application of scabs or pus from a person with the disease to a healthy individual's scarified skin. Interestingly, the concept of variolation via cutaneous inoculation was introduced into Egypt by the Mameluks in the thirteenth century. At the time of the French expedition in Egypt, Napoleon's surgeon-general, Dominique Larrey, reported that inoculation with smallpox was known and practiced up to the sources of the Nile. He described the procedure as follows, "Midwives take a small band of cotton, apply it to suppurating smallpox pustules, then place it on the arm of the child they wish to inoculate." 15

Perhaps the first recorded example of oral vaccination was conduct-

ed in China, almost a century prior to the advent of Edward Jenner, when healthy subjects took pills made from the fleas of cows to prevent the disease. <sup>7</sup>

For centuries, smallpox had devastated the Near East. Until Edward Jenner's vaccine was developed in Gloucestershire, England, people in Asia Minor and other parts of the Near East relied on the East Asian practice of variolation to prevent smallpox. Women from the Caucasus who served in the Turkish Sultan's harem were inoculated in childhood and presumably brought variolation to the court of the Ottoman Porte. <sup>7</sup>

According to some Ottoman sources, the method of variolation was introduced by the Seljuk Turks who were in close contact with Persia and the Near East. Inoculators practiced variolation as they traveled around Asia Minor. The technique involved collecting a small piece of infected skin and transferring it to a recipient. <sup>8,9</sup>

In the eighteenth century, Ottoman doctors introduced this method to Europe. The Royal Society of London received reports in 1714-1716 from Dr. Emanuele Timonius and Jacob Pylarini that described Turkish methods of cutaneous inoculation. Despite the rate that smallpox was sweeping England at that time, these reports did not alter the views shared among conservative English physicians. The first Latin-based publication written by Dr. Timonius titled *Historia variolarum quae per instionem excitantur* was printed in *Acta Eruditorum*. He served as the official translator for the Ottoman grand-vizier Gazi Huseyin Pasha during the Treaty of Karlowitz in 1699. <sup>10</sup>

The British Embassy where he worked as a translator hosted an English aristocrat, Lady Mary Wortley Montagu, who was in Istanbul with her husband, Lord Wortley Montagu, who was appointed British attaché to the Ottoman Porte in 1716. Through a series of letters to her friends in Europe, Lady Montagu explained what she called "ingrafting" and how the Turks employed variolation. It is in these accounts that Lady Montagu gave an account of the process of inoculation for smallpox which she later introduced to England. <sup>11</sup>

In a prophetic letter from Adrianople, dated April 1717, Lady Montagu wrote to her friend Sarah Chiswell,

"... I am going to tell you a thing that I am sure will make you wish yourself here. The small-pox, so fat, and so general amongst us, is here entirely harmless by the invention of ingrafting, which is the term they give it. There is a set of old women who make it their business to perform the operation...the old women come with a nut-shell full of the matter of the best sort of small-pox, and asks what veins you please to have opened. She immediately rips open that you offer to her with a large needle (which gives you no more pain than a common scratch), and puts into the vein as much venom as can lie upon the head of her needle...the children and young patients play together all the rest of the day, and are in perfect health...then the fever begins to seize them...and in eight days' they are as well as before their illness..." 12

The Ottoman method of inoculation so astonished Lady Montagu, herself a survivor of smallpox, that she ordered the embassy surgeon, Charles Maitland, to inoculate her son on March 1718 with the help of the 'old woman.' Her daughter was later inoculated in April 1721 on her return to London. <sup>11</sup>

By May 1805, Muhammad Ali Pasha rose to power in Egypt and brought important reformation to Ottoman Egypt that signified the beginning of a new era. The nineteenth century brought wide scale medical reforms including institutionalization of medical education, regulation of medical practice and entry into the medical profession,

as well as the introduction of quarantine and compulsory vaccination schemes.  $^{13}$ 

Smallpox was a major problem in Ottoman Egypt and was ahead in the Ottoman Empire's smallpox vaccination efforts. Muhammad Ali, Viceroy of Egypt, pioneered efforts aimed at eradicating smallpox in Egyptian countryside. He was convinced of the benefits of vaccination as early as 1819. In 1821, the Egyptian army began to inoculate Sudanese conscripts. It was not until the 1840s, however, that the Ottoman Empire made any effort to implement large-scale vaccination of its population. <sup>14</sup>

Commissioned by Muhammad Ali, a corps of French physicians led vaccination missions in 1824 in the Egyptian countryside. Their target was to vaccinate children and teach local barber-surgeons vaccination techniques. The mission ended abruptly with the deaths of many inoculated children. Despite noble efforts, peasants generally remained suspicious of Muhammad Ali's vaccination programs and even associated vaccination with being 'marked' for conscription. Eventually, the system set up by Muhammad Ali proved ultimately successful and village barbers continued administering smallpox vaccines in Egypt well into the twentieth century. <sup>15</sup>

The pattern of popular resistance and eventual acceptance of small-pox vaccination efforts seen in Egypt was not an isolated instance. The British undertook similar vaccination projects in nineteenth-century India that were met with suspicion and skepticism. The British recruited native practitioners called tikadars to conduct mass vaccinations. Some Hindus were appalled with the idea that the vaccine was derived from cows. Others were suspicious because vaccinations were compulsory only for Indians and not for British citizens. Muhammad Ali's centralization program and his projection of state control over the autonomous countryside bore similarities to British colonial rule. <sup>16</sup>

A prominent European medical advisor, French physician, Antoine Barthelemy Clot, had earned the Ottoman title of Bey for his loyal service to Muhammad Ali. Clot Bey believed that employing women health officers to treat women and children would help overcome the resistance of village peasants to vaccination. These women health officers would later contribute in the broad campaign to eradicate smallpox and build a healthier populace and hence a healthier army.<sup>14</sup>

Ottoman Egypt's campaign for wide-scale smallpox immunization proved successful for two reasons. Firstly, vaccination helped to demonstrate that prevention was less costly and more effective than attempted cures. Secondly, vaccination programs accustomed people to the idea of government intervention in the matters of public health as a service of manifest benefit. <sup>15</sup>

The Ottoman state promoted smallpox vaccination throughout the nineteenth century and after Jennings findings were published. The Imperial Ottoman College of Medicine was placed in charge of smallpox vaccination in 1839 and by the following year a law was decreed that smallpox vaccine should be made readily available free of charge. The Ottomans continued to import the vaccine from Europe after futile attempts to produce the vaccine locally. Following a smallpox outbreak in 1845 in Istanbul they developed vaccination stations throughout the city and spearheaded a program to bring students from several provinces to the Imperial College of Medicine for vaccination training techniques.<sup>17</sup>

#### **DISCUSSION**

The prophetic words of Thomas Jefferson were finally fulfilled in 1979 when the World Health Organization certified global smallpox

eradication. While eradication is considered a major triumph of public health, concerns linger about the remaining stocks of smallpox virus held in the United States and the Russian Confederation for research purposes. Of even more concern is the possibility that unaccounted stocks might fall into the possession of terrorists. Smallpox disease played a major role in history, and we can only hope that it remains a part of our history, rather than of our future.

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## **CALL FOR PAPERS**

Focused Issue of the Texas Public Health Journal - Spring 2012

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#### **Winter 2012 Poison Control Information**

Mathias B. Forrester

Texas Department of State Health Services, Austin, Texas

#### Valentine's Day is Not Just for Chocolate Anymore

An investigation by Wolters Kluwer Pharma Solutions found that in 2010 more prescriptions for Viagra (sildenafil) were written the week of February 5 (the week before Valentine's Day) than any other week of the year. This was 26% higher than the lowest week of the year, November 26 (Thanksgiving week). The week before Valentine's Day also was among the top weeks of the year for prescriptions of all erectile dysfunction drugs; the demand for Cialis (tadalafil) and Levitra (vardenafil) also were high before February 14, although this was not the highest week of the year for these drugs. The potential reason given for the high number of erectile dysfunction drug prescriptions prior to Valentine's Day was that intimacy and romance are emphasized during this holiday.

This holiday increase in erectile dysfunction drug prescriptions is important because these drugs have been associated with such adverse effects as headache, flushing, dyspepsia, rhinitis, back pain, myalgia, nasal congestion, prolonged erection and priapism, serious cardio- and cerebrovascular events, abnormal vision, and sudden decrease or loss of hearing.<sup>2-4</sup>

United States poison centers assist in the management of potentially adverse exposures to a variety of substances such as medications, recreational drugs, chemicals, animals, and plants.<sup>5</sup> Some of these exposures have demonstrated associations with respect to particular holidays. For example, exposures to glow sticks and other chemoluminescent products demonstrate a surge around Halloween.<sup>6,7</sup> Erectile dysfunction drugs are among the substances reported to poison centers.<sup>8-10</sup>

During 1998-2011, 694 erectile dysfunction drug (sildenafil, tadalafil, vardenafil) exposures were reported to Texas poison centers. If the exposures reported on the same dates in different years are combined and the dates are grouped into five-day periods, the mean number of exposures during a five-day period was 9.5 (range 2-21). Fig-

ure 1 shows the number of exposures for each five-day period. The five-day period with the highest number of exposures (21) was February 15-19, the five-day period immediately after Valentine's Day. According to the study of prescriptions for these drugs, the number of prescriptions was higher immediately before Valentine's Day. A possible explanation for this slight difference is that the prescriptions are an indication of people making preparations to use the drugs on or around Valentine's Day while calls are made to the poison centers after the drugs have been obtained and used, on or after Valentine's day. The five-day period with the lowest number of exposures (two) was November 17-21, around the time when Thanksgiving Day occurs in the United States. This is consistent with the prescription data.

Table 1 compares the exposures reported during February 15-19 to those reported on all other dates. For both time periods, the majority of patients were male and adults and the exposures occurred for unintentional reasons and at the patient's own residence, were managed on site, did not result in serious medical outcomes, and did not involve other substances. Thus, although the number of erectile dysfunction drug exposures tended to be higher in the five-day period right after Valentine's Day, the type of exposures tended to be similar to those reported during the rest of the year. This would suggest that the guidelines for management of erectile dysfunction drug exposures right after Valentine's Day do not need to differ from those guidelines used the rest of the year.

Thus, poison centers might expect to see an increase in erectile dysfunction drug exposures immediately after Valentine's Day. Prior to the holiday, poison centers and other healthcare providers might want to warn the public to be careful to avoid adverse erectile dysfunction drug exposures. If adverse erectile dysfunction drug exposures do occur right after Valentine's Day, they will probably be similar to those reported at other times of the year and can be managed like all other exposures.

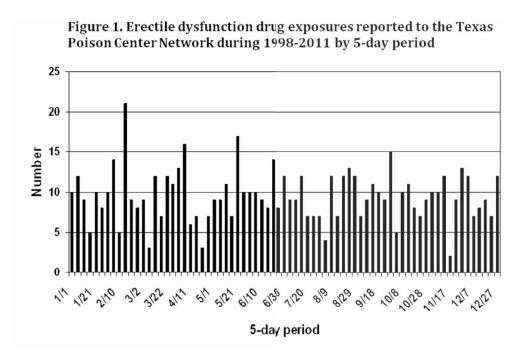


Table 1. Erectile dysfunction drug exposures reported to the Texas Poison Center Network during 1998-2011

| Variable                                  | Februar | February 15-19 |        | All other dates <sup>a</sup> |  |
|---|---------|----------------|--------|------------------------------|--|
|   | Number  | % total        | Number | % total                      |  |
| Total                                     | 21      |                | 673    |                              |  |
| Gender male                               | 16      | 76.2           | 427    | 63.4                         |  |
| Age 20+ years                             | 12      | 57.1           | 371    | 55.1                         |  |
| Exposure was unintentional                | 11      | 52.4           | 429    | 63.7                         |  |
| Exposure at own residence                 | 19      | 90.5           | 601    | 89.3                         |  |
| Managed on site (not healthcare facility) | 11      | 52.4           | 381    | 56.6                         |  |
| Not serious medical outcome               | 15      | 71.4           | 480    | 71.3                         |  |
| No additional substances in exposure      | 11      | 52.4           | 512    | 76.1                         |  |

Erectile dysfunction drugs: sildenafil, tadalafil, vardenafil

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# Did a Digoxin Recall Result in an Increase in Digoxin Exposures Reported to Texas Poison Centers?

On April 28, 2008, Actavis Totowa issued a voluntary recall of their Digitek® product because tablets that may have had double the appropriate thickness, and thus double the dose, might have been released. This recall was for tablets distributed between March 2006 and April 2008.<sup>1,2</sup>

Digitek® contains digoxin, a cardiac glycoside extracted from the leaves of the foxglove plant, Digitalis lanata. It is used for the treatment of heart conditions such as atrial fibrillation, atrial flutter, and mild to moderate congestive heart failure. Digoxin is also marketed under such product names as Cardoxin®, Lanoxin®, and Lanoxicaps®.

Digoxin has a narrow therapeutic index (margin between effective and toxic doses) with a high rate of morbidity and mortality.<sup>1</sup> Adverse clinical effects are dose-dependent. Adverse clinical effects reported with digoxin include cardiac instability, bradycardia, AV node dysfunction, hyperkalemia, hypotension, loss of appetite, nausea, vomiting, diarrhea, blurred vision, visual disturbances, confusion, drowsiness, dizziness, insomnia, agitation, depression, psychosis, delirium, and convulsions.<sup>2-4</sup>

To examine whether the Digitek® manufacturing error affected digoxin exposures reported to poison centers, researchers using Cali-

fornia poison center data compared digoxin exposures reported during March 2004-February 2006 (prior to the manufacturing error) and March 2006-February 2008 (during the manufacturing error). During March 2004-February 2006, there were 679 exposures with a known final outcome, of which 22% had an outcome determined to be moderate, major, or death. During March 2006-February 2008, there were 610 exposures with a known final outcome, of which 27% had an outcome determined to be moderate, major, or death. This increase in the rate of more serious outcomes was statistically significant.<sup>1</sup>

It might be asked whether a similar trend was observed in Texas. Table 1 presents the number of digoxin ingestions reported to Texas poison centers during three 26-month periods: January 2004-February 2006 (prior to the Digitek manufacturing error), March 2006-April 2008 (during the Digitek manufacturing error), May 2008-June 2010 (after the Digitek manufacturing error). The total number of reported ingestions with a known outcome declined over the three time periods, a pattern observed with the California study. Similarly, the proportion of ingestions with serious outcomes (moderate effect, major effect, or death) increased during the period of the Digitek manufacturing error. The increase was not statistically significant, but this might be due to the relatively smaller number of cases when compared to the California investigation.

<sup>&</sup>lt;sup>a</sup>Excluding February 29 (no exposures reported)

Table 1. Digoxin ingestions reported to Texas poison centers

| Time period | Digitek manufacturing error | Known outcome | Serious* | % serious | Rate ratio | 95% CI    |
|-------------|-----------------------------|---------------|----------|-----------|------------|-----------|
| 1/04-2/06   | before error                | 248           | 71       | 29        | reference  |           |
| 3/06-4/08   | during error                | 212           | 78       | 37        | 1.29       | 0.92-1.80 |
| 5/08-6/10   | after error                 | 194           | 69       | 36        | 1.24       | 0.88-1.76 |

<sup>\*</sup>Moderate effects, major effects, or death

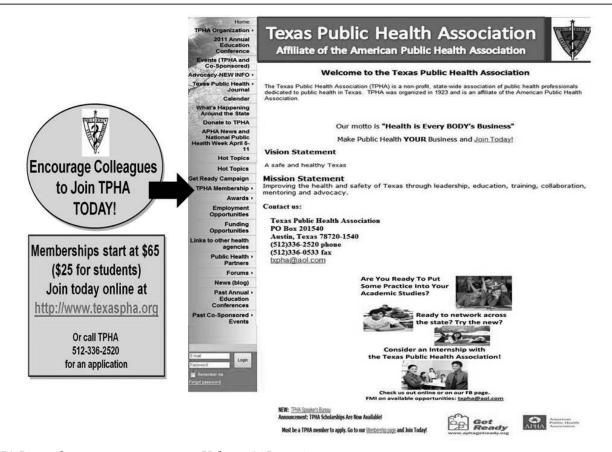
#### CI = confidence interval

The serious outcome rate might be expected to decrease after the end of the Digitek manufacturing error. A decline was observed, but it was only slight, and the rate was still higher than that observed prior to the Digitek manufacturing error. It might be that due to the Digitek recall people were more likely to contact the Texas poison centers about serious digoxin exposures, even when the manufacturing error was over. However, another explanation is that other digoxin recalls followed the one involving Digitek. For instance, on March 31, 2009, Caraco, a generic pharmaceutical company, issued a voluntary recall of digoxin tablets because they might differ in size and thus might contain more or less than the reported dose. The recall was for all tablets distributed prior to March 31, 2009, within an expiration date of September 2011.<sup>5</sup>

In conclusion, these Texas data and the California study both observed an increase in the rate of more serious outcomes to digoxin exposures after the Digitek® manufacturing error. This suggests that healthcare providers might expect recalls such as occurred with Digitek to affect the pattern of drug exposures that they deal with.

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#### **TPHA and Future Public Health Professionals**

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# TPHA Hosts Students in Special "Students Only" Session at 2011

TPHA knows that students are our future. On Wednesday, April 13, 2011, the Texas Public Health Association hosted approximately 20 students in a special "Students Only" Pre-Conference session of the Annual Education Conference (AEC). The purpose of this Pre-Conference was to share TPHA's rich history with the students, as well as encourage them to become active in the many leadership opportunities that TPHA offers.

Dr. Melissa Oden, Executive Board Member of TPHA and Vice President of Program Development at Girls Incorporated of Tarrant County, led the students in a brief lecture concerning the history of TPHA to give the students an understanding of how and why TPHA functions today. Six of TPHA's Executive Board Members also graciously assisted Dr. Oden with the Pre-Conference: Bobby Schmidt, Dr. Bobby Jones, Charla Edwards, Dr. Hardy Loe, Patricia Diana Brooks, and Bob Drummond. Each of these Executive Board members participated in a round table discussion with the students and shared their journey in the public health field. They offered advice to the students and answered students' questions about issues such as networking and job attainment.

There will be another student Pre-Conference held at the 2012 TPHA AEC at the Arlington Sheraton Hotel in Arlington, Texas on Wednesday, March 23rd at 9 AM. All students in any discipline in the public health field are encouraged to attend this fun, interactive session where students can network with each other and with seasoned members of TPHA who can help students acclimate to the warm, friendly culture of the AEC.

The students who attend the AEC come from Schools of Public Health and schools teaching public health principles, all over the state of Texas. These schools are engaged in exciting things that are promoting the importance of public health within their own communities, as well as the rest of the state, creating trends in how these schools are educating their students. TPHA and these schools enjoy a mutually beneficial relationship with each supporting the goals and missions of the other.

#### University of Texas School of Public Health Houston

The main campus of The University of Texas School of Public Health is located in the heart of the Texas Medical Center in Houston, the largest medical center in the world. This proximity provides opportunities for collaboration among public health faculty and students alongside world-class clinicians and medical researchers. UTSPH is, however, more than just a school in a large medical center: unique among schools of public health in the United States, it is the only school with regional campuses. This broad presence of faculty and facilities in regional campuses – located in Austin, Brownsville, Dallas, El Paso and San Antonio -- allows for practical experiences and research benefiting diverse communities across the state of Texas.

Enrollment at UTSPH has grown by 40 percent over the last two years, with a student body totaling near 1,400. There are a number of factors contributing to this growth. Among them is the developing understanding among medical practitioners that population health is a prerequisite to patient health. Health care providers are coming to understand that treating the patient while treating the population

leverages the capabilities of both medicine and public health. Thus we see an increasing number of mid-career medical professionals returning to pursue education in public health disciplines and practices. For those at the beginning of their careers who wish to combine medical and public health research or practice, UTSPH has responded by offering the master's component of several dual degree programs, e.g., the MD/MPH in collaboration with medical schools in Houston, San Antonio and El Paso. Dual degree master's level programs are also offered in nursing (UT School of Nursing at Houston) and social work (University of Houston School of Social Work, UT at Austin School of Social Work and UT Arlington School of Social Work). Currently, there are 17 dual degree programs available at UTSPH with universities across Texas.

We also see educational demand generated by emerging dimensions of public health, including emergency preparedness and response, and bioinformatics. For example, there are now programs offering both master's and doctoral level degrees in Biomedical Informatics in the UT School of Biomedical Informatics, in concert with an MPH. For those wishing to work in the field of public health law a joint JD/MPH program is offered in conjunction with the University of Houston Bates Law School.

In the management arena there has been a parallel awakening for education that teaches organizational management from the perspective of public health issues, concerns and disciplines. Over one hundred potential students applied to the fall 2011 MPH program in Healthcare Management, which was first offered in 2009. Some are working professionals in health care provider or public health organizations who are seeking to gain skills to move up the rungs of management. Others are recent graduates who wish to work in domestic or international NGO's or governmental organizations and recognize a need to supplement technical with managerial skills.

To meet the needs of professionals who may not wish to commit to a degree program, certificate programs in public health are now offered at the graduate and undergraduate levels, the latter in cooperation with the Houston Department of Health and Human Services. Many students in the graduate certificate program apply to the MPH degree program on completion of the certificate. In addition to a general public health certificate program, the school also offers specialized certificate programs for those interested in Maternal and Child Health, Public Health Informatics, and Health Disparities.

Flexibility is the by-word in all of these programs. In addition to the traditional classroom experience, many courses originating throughout the UTSPH campus network are offered via Interactive TV to other campuses, or through online access. Online classes permit students to tailor their learning time to fit with the demands of their workplace – although the classes themselves are every bit as demanding as traditional instruction. The online capability opens the door to learning at a distance. The typical online class may have students residing anywhere in Texas – or even (as I have had) from as far away as Yemen or Japan.

Growth has also been seen in applications from international students, particularly those from emerging countries. Approximately one-third of applicants for fall 2011 were international students. These applicants are generally early career health care providers who

wish to acquire an education that helps them build a model of "medicine and public health" in their home countries.

# University of North Texas Health Science Center at Fort Worth School of Public Health

The School of Public Health (SPH), founded in 1999 as a result of grassroots efforts of community leaders and public health officials, is now one of the only 48 accredited schools in North America. SPH has grown rapidly in student enrollment and research funding since its initial accreditation with the Council on Education for Public Health (CEPH) in June 2002, while maintaining strong and vital links with public health professionals in the community. In 2007, SPH was re-accredited for the maximum term of seven years.

In addition to the master of public health (MPH) and doctor of public health (DrPH) degrees, master of health administration (MHA) degree and now offers the Doctor of Philosophy in Public Health Sciences (PhD) degree. SPH offers dual degree programs with the Texas College of Osteopathic Medicine, the University of North Texas Anthropology Department and the University of Texas at Arlington School of Nursing.

The fall enrollment for 2011 is 318 students; however, the School of Public Health also admits students in the spring and summer, so the total for the year is likely to be over 370 students. According to School of Public Health Dean Rick Kurz, PhD, the projected enrollment is 365 for the year. Growth through FY 2017 is also projected.

#### Texas Chiropractic College

Texas Chiropractic College was founded in 1908 in San Antonio by John N. Stone, D.C., and relocated to Pasadena in 1965. The campus was officially dedicated on Aug. 20, 1965 and classes were first held that fall. TCC has maintained accreditation with the Council on Chiropractic Education since 1971 and the Southern Association of Colleges and Schools since 1984.

The College provides qualified students a comprehensive course of study leading to the Doctor of Chiropractic degree and is diligently working with area colleges and universities to expand educational and research opportunities. Included among these opportunities are a first-of-its-kind dual-degree program with the University of Houston – Clear Lake and a partnership with El Centro de Corazón's Eastwood Clinic. Both launched in Fall 2011. Through these programs, and more, TCC prepares students to become integral members of the primary health care team.

Promoting health and wellness is now a standard of the Council on Chiropractic Education for all chiropractic students. In addition, the research focus at Texas Chiropractic College is health promotion and human performance. A center at the College has been established to look at the role doctors of chiropractic may play in enhancement of biomechanics, human performance and health promotion in the clinical setting. A small biomechanics lab was established on campus in 2011 and the research division is in a partnership with two other chiropractic programs managing a Practice-based Research Network (PBRN) called the Integrated Chiropractic Outcomes Network (ICON), which has a focus on how field practitioners contribute to the overall health and wellness of patients in their individual communities.

Research Day at the College is held during National Public Health Week and features scholars from around the country who are prevention and health promotion specialists in addition to holding a poster competition for students.

Texas Chiropractic College (TCC) is committed to serving the needs of its students, the chiropractic profession, and the public through leadership, scholarship, research, patient care, and service activities.

#### Texas A&M School of Rural Public Health (SRPH)

The Texas A&M School of Rural Public Health (SRPH) has been at the forefront this year in promoting the importance of public health. The SRPH recently hosted the Surgeon General of the United States for the SPRH Spring commencement ceremonies. Vice Admiral Regina M. Benjamin, Surgeon General of the U.S. Public Health Service, delivered the commencement address for the Texas A&M Health Science Center School of Rural Public Health on May 21, 2011, at the Texas A&M campus. Dr. Benjamin is the 18th Surgeon General and oversees the operational command of 6,500 uniformed health officers who serve in locations around the world to promote, protect, and advance the health of the American people.

Additionally, First Lady Anita Perry recently served as the first honorary chair of the Texas "Friends of the School of Rural Public Health" (Friends of SRPH) initiative, which is intended to increase the public's awareness of the Texas A&M Health Science Center School of Rural Public Health's faculty, students and programs. This initiative is also an extension of the national "This is Public Health" program initiated by the Association of Schools of Public Health.

TPHA member Dr. Catherine Cooksley received the American Public Health Association (APHA) Committee on Affiliates (CoA) Award for Excellence. This award is presented to an individual who exhibits visionary leadership, service and achievement in her/his efforts within an affiliate(s). The award was presented on October 29 during the 2011 CoA Reception in Washington, DC.

Dr. Cooksley has been a member of the Texas Public Health Association (TPHA) since 1980. She has held all of the offices in the TPHA, has been THPA's Affiliate Representative to the APHA Governing Council since 2000 and currently serves as the Chair of the Committee on Affiliates. She also was the founding member of the TPHA Epidemiology Section and has served as the Chair of the Editorial Board and Editor for the TPHA Journal since 1999.

Catherine earned a Bachelor's Degree in Biology/Chemistry from the University of Texas-San Antonio in 1979. She went on to earn a Master of Public Health in 1985 from the University of Texas Health Science Center, School of Public Health in Houston. Dr. Cooksley received a Doctor of Public Health in 1997 at UTHSC, School of Public health in Houston.

Dr. Cooksley is currently the senior Biostatistician, Sealy Center on Aging at the University of Texas Medical Branch-Galveston, Texas. She has had at least 15 selected peer-reviewed publications published in professional journals. She maintains the TPHA website and has received the Thinking Progressively for Health Award, and numerous outstanding Service Awards and the President's award. She is also an Honorary Life Member of TPHA.

Congratulations Catherine!



## Nancy Crider, DrPH, RN

## New Year's Resolutions, Accreditation & Preparedness

As a new year begins, individuals and organizations often reflect on their performance during the previous twelve months and evaluate their accomplishments. They frequently compare and benchmark themselves against others. Many revise or develop personal goals or update strategic plans. Some create long lists and make resolutions to improve. Often these resolutions and goals are short lived as we become involved in the day to day activities before us. Yet, with small changes, specific, measurable, goals can propel us forward and help overcome the inertia that keep organizations and individuals from embracing change and flourishing in an uncertain environment. This type if creative thinking and the desire to improve service, value, and accountability to stakeholders is the reason health departments across Texas and the United States are embracing the concept of national public health department accreditation.

On September 14, 2011, the Public Health Accreditation Board (PHAB) launched the national voluntary public health accreditation program. The goal of the national accreditation program is to improve and protect the health of every community by advancing the quality and performance of public health departments. PHAB's Vision states that "Accreditation is based on standards that health departments can put into practice to ensure they are providing the best services possible to keep their communities safe and healthy. Accreditation will drive public health departments to continuously improve their services and performance."

Using a systems approach and quality improvement tools, public health practitioners have the opportunity and responsibility to recreate themselves and increase their capacity to better respond to natural disasters and man-made hazards. During the last decade, health departments and local health authorities adopted the Incident Command System (ICS) and incorporated an all hazards approach to preparedness. In the next decade public health leaders and practitioners must learn new skills to prepare for the challenges that lie ahead. They must be able to monitor and measure performance, redesign business processes and create learning organizations to meet the needs of the communities they serve. Each practitioner must answer the question, how do my decisions and performance impact the quality of public health services.

The August 2008 Public Health Quality Forum (PHQF) under the direction as the Assistant Secretary for Health, U.S. Department of Health and Human Services (HHS) defined quality as follows: "Quality in public health is the degree to which policies, programs, services and research for the population increase desired health outcomes and conditions in which the population can be healthy"

As you begin a new year, make a resolution to learn a new skill, embrace change, develop a passion for continuous improvement, prepare for accreditation and call the Texas Public Health Training Center to help you achieve your goals.

The mission of the TPHTC is to improve the state's public health system by strengthening the technical, scientific, managerial and leadership competencies and capabilities of the current and future public health workforce. TPHTC provides face to face and online training that reach audiences across Texas. Monthly Grand Rounds

hosted by local health departments keep public health practitioners engaged, challenged and up-to-date. Community Health Worker (CHW) Certification & Continuing Education prepares CHWs and Promotoras to improve access and provide health services to minorities and underserved communities. Offerings include 160 hours of core curriculum leading to state certification and ongoing continuing education for CHWs and CHW Instructors.

For further information or to schedule onsite training for your organization contact Nancy Crider at <a href="mailto:nancy.m.crider@uth.tmc.edu">nancy.m.crider@uth.tmc.edu</a>; Cara Pennell at <a href="mailto:clpennel@srph.tamhsc.edu">clpennel@srph.tamhsc.edu</a>; or Jeffrey Moon at <a href="mailto:jmoon@hsc.unt.edu">jmoon@hsc.unt.edu</a>
Texas Public Health Training Center website <a href="mailto:http://www.sph.uth.tmc.edu/research/centers/tphtc/">http://www.sph.uth.tmc.edu/research/centers/tphtc/</a>

## **TPHA News and Information**

#### **TPHA Governing Council and Executive Board Actions**

The TPHA business meetings of the Governing Council and Executive Board were held via teleconference November and December.

Governing Council approved the following letter to be sent to Representative Hensarling and other Texas delegates:

On behalf of the Texas Public Health Association, I write to urge you to protect critical health funding and programs as the Joint Select Committee on Deficit Reduction continues its work to develop a proposal to reduce the federal deficit.

Recent cuts in public health funding at the federal level have seriously impacted public health programs in Texas, forcing them to do more with less and struggle to provide basic health and prevention services. Simply put, the public health system in Texas will not be able to adequately protect the health of our citizens, and the long term medical and human costs will far outweigh the short term savings.

I urge you to resist efforts to cut funding for the Prevention and Public Health Fund or to use its funding to backfill cuts to discretionary health programs. This important mandatory funding is already at work in Texas, providing \$17.63 million in funding for evidence-based community-based health promotion and preventive health services to reduce chronic disease rates that will measurably improve our health and control costs.

I ask that you work to ensure the strength and quality of the Medicaid and Medicare programs. These critical programs provide vital health care and preventive health services to Texas' elderly, children, disabled, and low-income families. I ask that you oppose any harmful cuts to these programs that would result in reduced benefits or quality of care for beneficiaries.

Finally, I ask that you oppose any efforts to attach policy riders to your proposal that would block the implementation of important regulations intended to improve the public's health.

In summary, I ask that you prioritize and maintain funding for

both discretionary and mandatory health programs and oppose proposals that would make unbalanced cuts to these critical programs that help to keep Americans healthy.



The governing council approved a membership committee recommendation to offer complimentary student membership pending receipt of donations to cover the cost of implementation. The committee has been asked to develop a "Sponsor a Student" campaign to raise \$2500 to cover 100 student memberships.



The governing council also approved a membership committee recommendation to institute a new "Ambassador" program to introduce new members to the organization, benefits of membership, and activities of the association.

What is the TPHA Ambassador Program? This Program is an ideal way for current TPHA members to reach out to new members and welcome them to the Texas Public Health Association. The TPHA Ambassadors are active members from each TPHA Section who routinely communicate with new members of their section by telephone, mail, e-mail and meeting with them during TPHA events. Ambassadors will introduce new members to other members and encourage new members to attend events held during the annual education conference.

The TPHA Ambassadors are TPHA members who are knowledgeable of the benefits of membership and enjoy sharing this information with others one-on-one. As invaluable liaisons between new members and TPHA, their mission is to encourage involvement during the new member's first two years. These volunteer efforts go a long way toward increasing new member satisfaction and renewals, and contribute to a higher member retention rate for TPHA.

#### What is the role of an Ambassador?

Ambassadors fulfill an important role within TPHA. Responsibilities include:

- Making an initial welcome phone call and learning the reasons the new member joined TPHA.
- Introducing new members at events, meetings, trainings, phone conferences, Board Meetings, etc.
- Acting as information resources and mentors for their new members
- Staying in contact with new members once per quarter during the new member's 1st two years.
- Providing feedback to TPHA about new member needs and interests, while educating new members.
- Adding to the membership experience by personalizing the membership for the new member.
- Wear an ambassador ribbon to identify yourself to new TPHA's members at the annual education conference.

## How do you become a TPHA Ambassador?

- 1. **Getting started.** Many of our active and involved members are already telling others how much they value their membership. If you are among them, and would like to do more, simply notify TPHA of your interest in becoming an Ambassador. The Membership Committee will then work with you to identify new members to contact.
- 2. **Resources and materials.** TPHA compiles a packet of information for Ambassadors that will provide the resources you need to be

a TPHA "expert." The packet will include a sample new member packet (TPHA bylaws, schedules of events and meetings both regionally and statewide, TPHA Board information, TPHA website information, and other materials to help encourage new member participation and involvement. The packet will be an easy reference to orient Ambassadors of their responsibilities. The packet also provides the background you need about TPHA membership benefits, products, and services.

3. Contact TPHA Membership Committee representative today. Contact Patricia Diana Brooks, Membership Committee Chair at pdb879@yahoo.com



The governing council approved the following members to run for offices in the organization:

#### Governing Council at large (3 year terms)

Will Evans (health education section) Carol Davis (epidemiology section) Julie Hermann (student section)

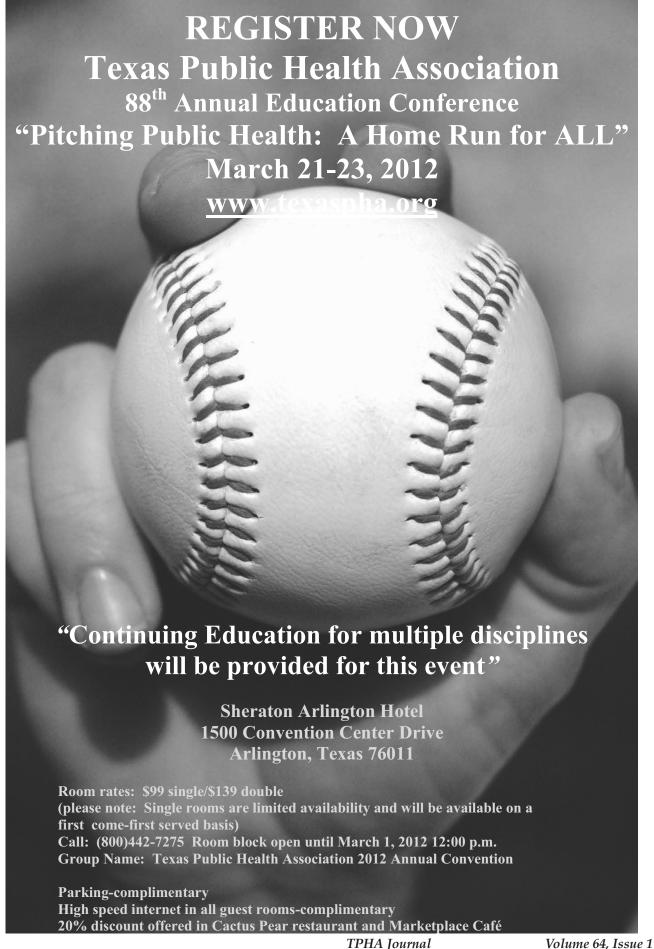
#### **Second Vice-President**

Cindy Kilborn, Fellow and member of the epidemiology section Melissa S. Oden, Fellow and member of the student and health education sections



Public Health Museum of Texas-The Texas Public Health Museum exhibits are on display at the Texas Medical Association, first floor exhibit hall at 401 West 15th Street, Austin TX 78701. The exhibit is free and open Monday through Friday, business hours. The exhibit is titled, "Don't Spit on the Sidewalk! - how 20th century public health and safety campaigns added 25 years to your life." For more information or for group tours call (512) 370-1552 or (512) 370-1300. Admission: Free. Some free parking is available at their building. The exhibit will most likely be on display until August 2012.





| Wednesday, March 21, 2012  Registration Open |       |  |   |  |  |  |
|--|-------|--|---|--|--|--|
| 8:00   | 5:00  |  | Registration Open   |  |  |  |
|  |       | Preconference Workshop<br>Session 1  | Preconference Workshop<br>Session 2   | "Just For Students" Session<br>No CEU for this session   |  |  |
|  |       | Applying Family History In Health Education  Lei-Shih Chen, PhD, PT, CHES, Assistant Professor, Dept. of Health  | Cost-Effective Resources for<br>Emergency Preparedness<br>Part 1-Emergency Preparedness<br>and Southwest Center for   | Moderator, Melissa Oden, DHEd LMSW-IPR, MPH, CHES  This "students only" session  |  |  |
|  |       | and Kinesiology, Texas A & M University  | Advanced Public Health Practice<br>(APC) Overview<br>Part 2- APC Solutions for  | provides a place for Public Health<br>Students to learn about the history of<br>TPHA, as well as an opportunity to                     |  |  |
| 9:00   | 11:30 | Julie Ribardo, PhD, Director of<br>Compliance and Clinical<br>Effectiveness, Brazos Valley<br>Community Action Agency, Inc.  | Emergency Preparedness Part 3-APC Solutions for Emergency Preparedness Part 4-Featured Case Study   | network with each other and with<br>key TPHA members who act as<br>mentors during this session. This<br>fun, interactive workshop will |  |  |
|  |       | Amber Muenzenberger, MS,<br>Director, Office of Health<br>Informatics, Texas A & M<br>University, Dept. of Health and<br>Kinesiology   | Dean Lampman, MBA, Regional<br>Surveillance Coordinator, Tarrant<br>County Public Health, Southwest<br>Center for Advanced Public Health<br>Practice (APC)  | provide students with the knowledg they need to experience a successfu TPHA AEC.   |  |  |
|  |       | Patricia Goodson, PhD, Professor,<br>Texas A & M University  | William F. Stephens, MS, Manager,<br>Southwest Center for Advanced<br>Public Health Practice (APC),<br>Tarrant County Public Health<br>Diana Martinez, MPH,<br>Epidemiologist, Harris County<br>Public Health and Environmental<br>Services |  |  |  |
| 1:30   | 12:30 | Governing Council Meeting  |   |  |  |  |
| :00  | 3:15  | Opening Plenary Session-Session 3 Welcome Remarks: Bobby Schmidt, MEd, TPHA President, Presiding (1-1:10 pm) Lou Brewer, RN, MPH, Director, Tarrant County Public Health Department (1:10-1:20 pm) Richard S. Kurz, PhD, Professor and Dean, University of North Texas Health Science Center School of Public Health (1:20-1:30 pm) Mayor/Elected Official to welcome TPHA to Arlington, Texas (1:30-1:45 pm) Speaker: Dr. David Lakey, Commissioner of Health, Texas Department of State Health Services (1:45-2:30 pm) |   |  |  |  |
|  |       | Healthy People 2020, Eva Moya, PhD, LMSW, Assistant Professor, Department of Social Work, College of Health Sciences, The University of Texas at El Paso (2:30-3:15 pm)  Research Paper Presentations-Session 4  |   |  |  |  |
| :30  | 5:00  | Moderator, Patricia Diana Brooks   |   |  |  |  |
| :15  | 7:15  | Grand Opening of Exhibits, Poster  | s and Educational Materials Display   |  |  |  |

| Thurs | Thursday, March 22, 2012 |   |   |   |  |  |
|-------|--------------------------|---|---|---|--|--|
| 8:00  | 5:00                     | Registration  |   |   |  |  |
| 8:30  | 9:30                     | Plenary Session-Session 5 Social Determinants of Health Disparities: Potential for Change in Public Health Practice-Panel Ben G. Raimer, MD, Senior Vice President for Health Policy and Legislative Affairs at UTMB, Moderator Alexandra Nolen, PhD, MPH, Director, Center to Eliminate Health Disparities, UTMB Eva Moya, PhD, LMSW, Assistant Professor, Department of Social Work, College of Health Sciences, The University of Texas at El Paso |   |   |  |  |
| 9:30  | 9:45                     | Break   | Break   |   |  |  |
| 9:45  | 10:45                    | Health Policy Track-Session 6 Using Public Policy to Improve Public Health-State and Local Policy Perspectives  Tate Erlinger, MD, MPH, Texas Department of State Health Services  George T. Roberts, Jr., FACHE, CEO, Northeast Texas Public Health District   | Health Information Technology Track-Session 7 Health Information Technology  Susan McBride, PhD, RN, Professor Texas Tech University Health Sciences Center School of Nursing | Addressing Infant Mortality in Texas-Session 8  Sam B. Cooper, III, LMSW-IPR Director, Office of Title V and Family Health, Family and Community Health Services Division, Texas Department of State Health Services  Ann Salyer-Caldwell, MPH, RD, LD, Associate Director, Community Health Promotion, Tarrant County Public Health  Richard S. Kurz, PhD, Professor and Dean, University of North Texas Health Science Center School of Public Health |  |  |
| 10:45 | 11:0<br>0                | Break   |   |   |  |  |
| 11:00 | 12:0                     | Aging and Public Health Track- Session 9  Denton County Prepare: Targeting Vulnerable Populations  Rebecca Knight, MS, PHR, Teaching Fellow, Department of Applied Gerontology, University of North Texas  Sandi Wiggins, MPA, Assistant Preparedness Coordinator and MRC Coordinator, Denton County Health Emergency Alert Response Team   | Community Nursing Track- Session 10  Preparedness and Response at Ranger Stadium  Curtis Dunn, EMT, Texas Rangers Ballpark in Arlington, Texas, Retired Firefighter           | Bio-surveillance Opportunities Track-Session 11  Part I-Meaningful Use and Syndromic Surveillance Part II-Pre-School and School Health Surveillance  Dean Lampman, MBA, Regional Surveillance Coordinator, Tarrant County Public Health / Southwest Center for Advanced Public Health Practice (APC)  William F. Stephens, MS, Manager, Southwest Center for Advanced Public Health Practice (APC), Tarrant County Public Health                        |  |  |

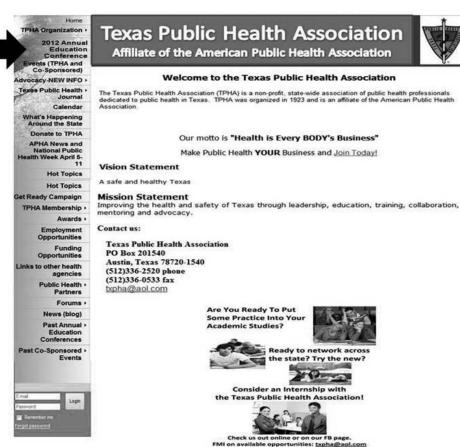
| 12:00 | 1:00 | Lunch (boxed lunch available with  | pre-purchase)   |   |  |
|-------|------|--|---|---|--|
| 1:15  | 2:15 | Aging and Public Health Track Session 12  Age Well-Live Well  Ken Bomar, BS, Marketing Director, Volunteer and Community Engagement, Texas Department on Aging and Disability Services (DADS)  | Epidemiology and Capacity Building Track-Session 13  Building Epidemiology and Response Capability in Texas- 2010-2011  Lisa Abate, PhD and Araceli Rey, RN, MPH, Community Preparedness Section, Texas Department of State   | Health Policy Track-Session 14  Using Public Policy to Improve Public Health-State and Local Policy Perspectives (Repeat Session)  Tate Erlinger, , MD, MPH, Texas Department of State Health Services  |  |
|       |      |  | Health Services (1:15-1:45)  David Zane, MS and Tracy Haywood, BS, Strategic Preparedness Team, Community Preparedness Section, Texas Department of State Health Services, Medical Geographer, GIS (1:45- 2:15)   | George T. Roberts, Jr., FACHE,<br>CEO, Northeast Texas Public Health<br>District  |  |
| 2:15  | 2:45 | Break and visit exhibits, posters and education materials  |   |   |  |
|       |      | Aging and Public Health Track-<br>Session 15  The Impact of Aging and Alzheimer's on Population Health   | Epidemiology (Outbreak Investigations) Track-Session 16  Triatomine Bugs and Chaga's Disease in Southcentral Texas  | Health Education Track-Session  17  Community Health Education  Programs that Work  |  |
| 2:45  | 3:45 | James W. Simpkins, PhD, Professor of Pharmacology and Neuroscience, Graduate School of Biomedical Sciences  Thomas Fairchild, PhD, (not yet confirmed) Associate Professor of Health Management and Policy, UNTHSC School of Public Health | Roger Sanchez, MPH, San Antonio Metropolitan Health District and  Edward J. Wozniak, DVM, PhD, Regional Zoonosis Control Veterinarian, Texas Department of State Health Services (2:45-3:15)  Foodborne Investigations in Texas, 2011  Venessa Cantu, MPH – Emerging and Acute Infectious Disease Branch, Texas Department of State Health Services (3:15-3:45) | Kathryn M. Cardarelli, PhD, MPH Director, Center for Community Health, Texas Prevention Institute Associate Professor of Epidemiology, School of Public Health, UNT Health Science Center Heather Kitzman-Ulrich, PhD, Assistant Professor, Texas Prevention Institute, University of North Texas Health Science Center, Fort Worth |  |
| 3:45  | 4:00 | Break  |   |   |  |

|      |      | Nursing Track-Session 18              | <b>Epidemiology (Surveillance) Track</b> | Health Education-Session 20           |
|------|------|---------------------------------------|--|---------------------------------------|
|      |      |                                       | Session 19                               |                                       |
|      |      | Health Literacy                       |  | Impacting Community Health            |
|      |      |                                       | Mortality of the Seriously               | Through Translational Research        |
|      |      | Michelle Malizia, MA, Associate       | Mentally Ill in Texas                    | Mark DeHaven, PhD, Professor of       |
|      |      | Director, National Network of         |  | Social and Behavioral Science,        |
|      |      | Libraries of Medicine South Central   | Robert J. Reynolds, MPH, Doctoral        | Director, Texas Prevention Institute, |
|      |      | Region (NN/LM SCR)                    | Candidate, University of Texas           | School of Public Health               |
|      |      |                                       | Health Science Center at Houston;        |                                       |
|      |      |                                       | Data Manager, MD Anderson                | Jenny Lee, Ph.D., MPH, CHES,          |
| 4:00 | 5:00 |                                       | Cancer Center (4-4:30)                   | Assistant Professor, Department of    |
| 4.00 | 3.00 |                                       |  | Behavioral and Community Health       |
|      |      |                                       | Varicella in Texas, 2006-2010            | School of Public Health, Co-          |
|      |      |                                       | Lucille L. Palenapa, MS, Emerging        | Director, The GoodNEWS Lifestyle      |
|      |      |                                       | and Acute Infectious Disease             | Program, Texas Prevention Institute   |
|      |      |                                       | Branch, Texas Department of State        | University of North Texas Health      |
|      |      |                                       | Health Services (4:30-5)                 | Science Center, Adjunct Assistant     |
|      |      |                                       |  | Professor, Department of Health,      |
|      |      |                                       |  | Physical Education, and Exercise      |
|      |      |                                       |  | Science, College of Education and     |
|      |      |                                       |  | Health Professions, Columbus State    |
|      |      |                                       |  | University                            |
| 5:30 | 7:30 | Reception & Awards Presentations      |  |                                       |
| 3.30 | 7.30 | Awards presentation begins at 6:30 pm |  |                                       |

| Start | End    |                                   |   |                                   |
|-------|--------|-----------------------------------|---|-----------------------------------|
| Fria  | day, N | March 23, 2012                    |   |                                   |
| 8:00  | 2:00   | Registration and Continuing Educa | ntion Paperwork Turn-In                     |                                   |
|       |        | Nursing Track-Session 21          | Public Health Preparedness Track-Session 22 | Health Policy Track-Session 23    |
|       |        | Life is Better than Fiction:      |   | Accreditation of Local Public     |
|       |        | Reaching Policy-Makers with       | Functional Needs Support                    | Health: What It Means for Your    |
|       |        | PHN Stories                       | Services: What does it mean?                | Department                        |
| 9:00  | 10:0   |                                   | How will Texas get there?                   |                                   |
| 9:00  | 0      | Lisa A. Campbell, DNP-PHN, RN,    |   | Matt Richardson, DrPH, Director,  |
|       |        | GNP-BC                            | Sharon A. Nalls, CEM, TEM,                  | Amarillo Department of Public     |
|       |        |                                   | City of Houston, Office of                  | Health                            |
|       |        |                                   | Emergency Management, Assistant             |                                   |
|       |        |                                   | Director, Emergency Management              | Lou Brewer, RN, MPH, Director,    |
|       |        |                                   | Coordinator                                 | Tarrant County Public Health      |
|       |        | <b>Environmental Occupational</b> | <b>Public Health Preparedness</b>           | Health Education Track-Session    |
|       |        | Health-Session 24                 | Session 25                                  | 26                                |
|       |        |                                   |   |                                   |
| 10:15 | 11:15  | Alpha Radiation in the Water      | Mass Fatality Plan                          | Complementary and                 |
| 10110 | 11110  | Supply                            |   | Alternative Medicine-Who          |
|       |        |                                   | Elizabeth Macaluso                          | is Contributing to Public Health? |
|       |        | Irina Cech. PhD, Professor (RET), |   |                                   |
|       |        | The University of Texas Health    |   | Will Evans, DC, PhD, MCHES,       |

|       |       | Science Center at Houston<br>(UTHealth)  |   | Texas Chiropractic College  Dr. Al Adams -Texas Chiropractic College  Use of National Databases to Assess the Role CAM Provides in Health Education  Harrison Ndetan, Msc, MPH, DrPH, Parker University Research Institute-Dallas |
|-------|-------|--|---|---|
| 11:15 | 11:30 | Check out  |   |   |
| 11:30 | 1:30  | Eduardo Sanchez, M.D., Vice President and Chief Medical Officer, Blue Cross Blue Shield of Texas Public Health Presentation Awards Presentation, Patricia Diana Brooks, Committee Chair Transfer of TPHA President's Gavel-Bobby Schmidt, MEd Incoming President's Remarks, Kaye Reynolds, MPH |   |   |
| 2:00  | 4:00  | 2013 Program Planning Committee<br>Incoming Executive Board Meeting  | Meeting<br>(immediately following Program Pla | anning Meeting)   |





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