

The Primary Care Research Journal

August 2009

Volume 6, Issue No. 2

<http://www.hsc.unt.edu/research>

E-mail: PCRI@hsc.unt.edu

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Today's research is tomorrow's medicine

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About this Journal

The Primary Care Research Institute felt that it was important to create a forum for our institute to distribute information to our collaborative partners about the ongoing research endeavors being initiated in the PCRI/NorTex. *The goal of the Journal is to...*

- Promote professional writing opportunities for faculty, staff, students, trainees, and collaborative partners
- Promote discussions regarding innovative primary care and public health related ideas
- Promote collegiality among the PCRI/NorTex members
- Promote collaboration among PCRI/NorTex partners
- Increase visibility of the Primary Care Research Institute
- Increase awareness of our training program—The Primary Care Research Fellowship
- Increase involvement of staff, faculty, students, trainees, and collaborative partners in primary care and public health education and research

Formatting Guidelines for the Journal

Details on typesetting and layout requirements pertaining to final manuscript submissions to *The Primary Care Research Journal* are listed below. *Case Report Collaborators* should use the following format to submit a case report to the *Journal*.

1. Word limit 750 words
2. AMA or APA Format
3. Word Document
4. Use generic names for all medications
5. No patient identifiers may be used
6. Sections
 - Abstract
 - Patient Presentation
 - Literature Review
 - Discussion
 - Conclusion
 - Citations

Review Articles: Collaborators should use the following format to submit a review article to the *Primary Care Research Journal*:

1. Word limit 1,500 words
2. AMA or APA Format
3. Word Document
4. Use generic names for all medications

Letters: Collaborators should use the following format to submit a letter to the *Primary Care Research Journal*:

1. Word limit 500 words
2. AMA or APA Format
3. Word Document

Editor's Corner

The Primary Care Research Institute is beginning to wind down its second year with a prosperous outlook for the upcoming academic year. There are numerous highlights this past year that are highlighted in this issue of the *Journal*. Recently, the PCRI co-hosted the Distinguished Speaker Series at UNTHSC with George Rust, MD, MPH serving as our invited speaker. The event was covered by the Fort Worth Business Press Newspaper and included a panel of experts discussing primary care and equitable health. The event drew in over 60 participants and initiated important dialogue about how primary care, research, and policy can impact health in America, especially vulnerable and underserved populations. In April, the PCRI also hosted its first NorTex Convocation of Practices which provides a forum to disseminate research findings back to the clinical community and to the public. Concurrent health fair and educational sessions were held for participants involved with NorTex projects as a modality to give research and health information back to the community. The Institute also graduated 3 more Primary Care Clinical Research fellows in the Spring/Summer session which brings the total of graduates of the program to 8. We are very proud of these graduates who have excelled in our research program!

Whenever possible we like to thank all our research participants, supporters, funders, collaborators, and UNTHSC administration in their efforts to improve health through research, education, and policy. I want to especially thank the members of the Executive Advisory Board of the PCRI and the NorTex Scientific and Community Review Boards who are always willing to sacrifice time to advance the mission of the Institute. We continue to build bridges among organizations and systems to further our collaborative efforts locally and nationally. I must also give a tremendous kudos to the team here at the Institute who makes our success a reality on a daily basis.

It is critical that we reflect on our mission, vision, and goals and strive for the initial purpose in creating the PCRI. Funding across the country is tight and competitive but we continue to manage during these challenging times. The PCRI continues to grow and succeed and we are excited that we have so many partners to share this success with. Thank you.



Roberto Cardarelli, DO, MPH, FAFP
Director, PCRI/NorTex
Acting Chair & Associate Professor, Family Medicine Department
UNTHSC at Fort Worth, Texas College of Osteopathic Medicine

CASE INVESTIGATION IN REVIEW: THE INFLUENZA PANDEMIC OF 2009

Synopsis

In mid-March 2009 with the arrival of spring, surveillance systems in Mexico began detecting increasing reports of influenza like illness (ILI) and pneumonia.¹ This was unusual as ILI, characterized by fever greater than 100°F presenting with a cough or a sore throat typically subsides in March.² Another unique aspect of the reported increase in ILI activity was the occurrence in younger adults as opposed to the very young or old commonly affected by seasonal influenza.¹ Soon afterwards in late March, specimens collected in California from two children (ages 9 and 10 years) and tested under routine influenza surveillance were diagnosed with an influenza A virus which could not be further characterized into seasonal influenza subtypes by local public health laboratories. Based on established surveillance guidelines, these specimens were subsequently submitted to the Centers for Disease Control and Prevention (CDC). On April 15, 2009 the first case of novel swine origin influenza A H1N1 virus (S-OIV) was detected in the United States and reported to the World Health Organization (WHO).³

Prompted by the detection of the novel influenza A H1N1 virus (S-OIV) in the United States, enhanced surveillance of patients presenting with febrile respiratory illness was instituted during the week of April 19th. On April 23rd, the first two cases of influenza A H1N1 virus (S-OIV) (two 16 year old males) were detected in Texas near San Antonio and on April 25th, the first case of influenza A H1N1 virus (S-OIV) in Tarrant County was detected in a 12 year old female. Based on the results of the case investigations conducted on 131 confirmed cases in Tarrant County, the earliest illness onset date recorded was April 22nd, approximately one month after the earliest onset date in the United States (Figure 1).

Two months since its initial detection, 39,620 cases have been attributed to the novel influenza virus strain including 167 deaths worldwide;⁴ the majority of deaths (108, 64.7%) have been reported in Mexico.⁴ In the United States 17,855 confirmed and probable cases of influenza A H1N1 virus (S-OIV) have been reported, including 44 deaths.⁴ Statewide, 2,519 influenza A H1N1 virus (S-OIV) cases have been reported among Texas residents, including nine deaths. All deaths in Texas have occurred in the Southern Gulf Coast area or El Paso County.⁵

Locally in Tarrant County, as of June 19, 2009, 155 cases of influenza A H1N1 virus (S-OIV) have been confirmed. From April 23-June 8, 2009 the Tarrant County North Texas Regional Laboratory (which encompasses a 33 county region) tested 978 specimens for influenza virus. Of those specimens, 220 (22%) tested positive for influenza A H1N1 virus (S-OIV), 18 (2%) tested positive for seasonal influenza A, 4 (0.4%) tested positive for influenza B and 729 (75%) tested negative for any influenza virus.

Evolution of a Virus

The emergence of pandemic influenza viruses occurs through two mechanisms: reassortment and interspecies transmission.⁶ Reassortment occurs when, due to infection with influenza A viruses originating from different species, the eight genes which compose the genome of influenza viruses are packaged together in a unique multi-species combination. Swine are believed to serve as a “mixing vessel” for reassortment as swine express receptors on their tracheal epithelial cells that are recognized by both human and swine influenza viruses.⁶

Of the documented influenza pandemics, all but the pandemic of 1918 resulted from the reassortment of human and avian influenza viruses.² Recent genetic analyses indicate that the 1918 influenza virus appears to have originated from a direct human infection of an influenza virus of avian origin.² Due to the high morbidity associated with the 1918 influenza virus, direct human infections with the avian H5N1 influenza virus are of concern and are continuously being monitored worldwide.

The pandemic of 2009 represents the first time that an influenza virus of swine origin has reached sustained human to human transmission and therefore represents a unique event in history. In the late 1990's triple reassortant influenza viruses (avian/human/swine genes) were detected in swine and since that time, limited infections with these viruses have caused human illness with no sustain transmission documented.⁷ Currently there are two North American swine influenza viruses which commonly circulate, swine influenza A H1N2 and H3N2.⁷ Both of these commonly circulating swine viruses arose due to triple reassortment events and have been identified not only in North America but also in Asia.⁶

Phylogenetic analyses of the novel influenza A H1N1 virus (S-OIV) revealed that the majority of its genes have circulated in swine for at least the past ten years.^{2,6} The main composition of the novel influenza A H1N1 virus (S-OIV) is that of the North American swine H1N2 virus.² It is believed that the currently circulating novel virus arose due to a reassortment event of the North American swine H1N2 virus and a swine influenza virus of Eurasian origin possibly in a swine host.⁷ It is unclear where and when this may have occurred due to poor surveillance in swine, and it is possible that the novel influenza A H1N1 virus (S-OIV) virus has been circulating among swine for some time.⁷ Currently, there are three commonly circulating influenza A viruses among humans: influenza A H1N1 and H3N2 representing seasonal influenza and now influenza A H1N1 virus (S-OIV).

Clinical Presentations and Recommendations

Information obtained from case investigations conducted through late May 2009 indicate the majority of the patients infected with influenza A H1N1 virus (S-OIV) presented with symptoms similar to those seen with infection due to seasonal influenza including fever, cough, sore throat, malaise and headache.⁸ Initial investigations indicated that of the first 642 cases in the United States of influenza A H1N1 virus (S-OIV), 25% presented with vomiting and/or diarrhea.² In Texas, 42% of investigated cases of influenza A H1N1 virus (S-OIV) presented

with diarrhea and/or vomiting.⁹ In Texas and Tarrant County, 80% of the cases investigated, presented with typical ILI symptoms.⁹

In the United States, approximately 1,600 influenza A H1N1 virus (S-OIV) confirmed cases have been hospitalized while in Tarrant County, three hospitalizations have occurred among confirmed novel influenza cases.¹⁰ Persons with underlying conditions including pregnancy, diabetes, asthma, other lung diseases, morbid obesity and autoimmune disorders are at highest risk for hospitalization and death.⁸ Approximately 70% of hospitalized cases had underlying conditions, most commonly asthma and diabetes mellitus.¹⁰

According to CDC reports, young adults were more commonly affected by the novel influenza virus. In Texas, those less than 19 years of age represented 38% of the investigated cases.⁹ In Tarrant County, 56% of investigated cases occurred among the 5 to 14 years of olds and no cases were reported among those age 65 and older (Figure 2).

To date, influenza A H1N1 virus (S-OIV) is believed to have similar transmission patterns as observed with seasonal influenza. Those infected with the novel virus may transmit the virus from one day prior and until seven days after onset of symptoms.⁸ Tarrant County currently recommends that per CDC guidelines, persons with underlying health conditions seek medical attention upon onset of symptoms while those without underlying conditions self-quarantine at home for seven days after onset of symptoms or at least 24 hours after symptoms have resolved, whichever is longer.⁸ Due to clinical presentation including gastrointestinal symptoms, all respiratory secretions and bodily fluids should be considered infectious and standard precautions must be applied.⁸

As influenza A H1N1 virus (S-OIV) is now widespread in the United States and the majority of those infected are presenting with uncomplicated disease, it is recommended that priority for diagnostic testing and treatment of those infected with influenza A H1N1 virus (S-OIV) be given to hospitalized patients and those with underlying health conditions.⁸

Chemoprophylaxis should be considered for all high-risk close contacts of confirmed influenza A H1N1 virus (S-OIV) cases. Persons at high risk of complications are as follows:

- children less than 5 years old;
- persons aged 65 years or older;
- children and adolescents (aged 6 months–18 years) who are receiving long-term aspirin therapy and who might be at risk for experiencing Reye syndrome after influenza virus infection;
- pregnant women;
- adults and children who have chronic pulmonary, cardiovascular, hepatic, hematological, neurologic, neuromuscular, or metabolic disorders;
- adults and children who have immunosuppression (including immunosuppression caused by medications or by HIV); and
- residents of nursing homes and other chronic-care facilities.

Currently all influenza A H1N1 viruses (S-OIV) tested have been susceptible to the neuraminidase class of anti-viral (Oseltamivir and Zanamivir), but resistant to the M2 inhibitors (Amantadine and Rimantadine).^{3,8} As the currently circulating seasonal H1N1 virus is resistant to Oseltamivir,³ healthcare providers should consider treatment or chemoprophylaxis with Zanamivir based on local surveillance information indicating seasonal H1N1 influenza co-circulation with influenza A H1N1 virus (S-OIV).⁸

Future Perspectives

On June 11, 2009 due to the widespread nature of the influenza A H1N1 virus (S-OIV) as well as efficient person-to-person transmission, WHO elevated the worldwide pandemic alert level to six, indicating an influenza pandemic is underway. As the influenza season progresses in the Southern hemisphere, we are provided a snapshot of what may occur in the United States in the upcoming fall and winter months. Currently the predominant strain of influenza being detected in the Southern hemisphere is the influenza A H1N1 virus (S-OIV). Other seasonal influenza viruses are co-circulating at low levels with the novel strain, and it is unknown if the influenza A H1N1 virus (S-OIV) pandemic strain will replace other seasonal influenza viruses, an event that occurred during other influenza pandemics.¹⁰ Concerns are the currently increased levels of influenza during the summer months in the Northern Hemisphere. Since it is possible that little to no immunity exists in the majority of the population against the novel influenza virus, elevated transmission is occurring and will likely continue to increase during the winter months potentially contributing to higher levels of influenza related morbidity and mortality.¹⁰ It is hopeful that a successful vaccine will soon be developed to provide adequate immunity. Vaccine preparations for the influenza A H1N1 virus (S-OIV) strain are currently being developed, and it is anticipated that a vaccination may be available in the early fall.¹⁰ Sustained surveillance of influenza will continue to monitor the progression of the 2009 pandemic.

Figure 1. Onset of illness for influenza A H1N1 virus (S-OIV) cases, Tarrant County, 2009

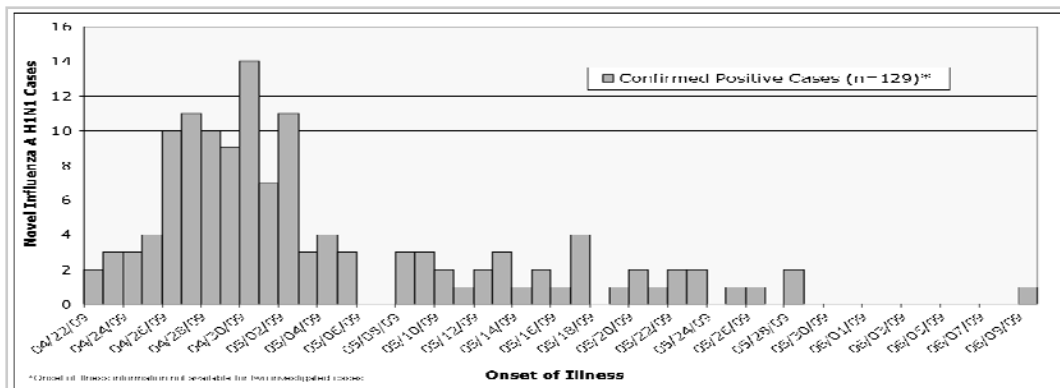
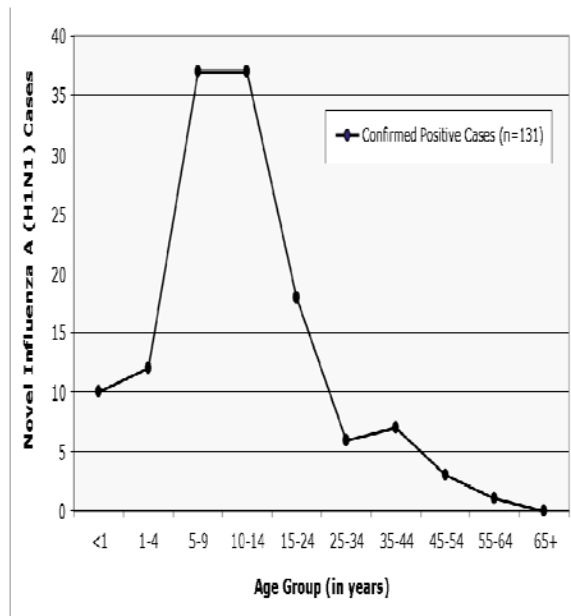


Figure 2. Influenza A H1N1 virus (S-OIV) cases shown by age group, Tarrant County, 2009



Article presented by: Diana Cervantes, MS, MPH, Micky Moerbe, MPH, Anita K. Kurian, MBBS, DrPH, Tarrant County Public Health

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NEW TEXAS CHILD PASSENGER SAFETY LAW

Evidence-Based Information

Motor vehicle crashes are the leading cause of death to children ages 2 to 14 and the leading cause of injury-related death for children under 2. When installed and used correctly, child safety seats and safety belts can prevent injuries and save lives. Young children restrained in child safety seats have an 80 percent lower risk of fatal injury than those who are unrestrained.

New Texas Booster Seat Law

As of September 1, 2009, every child must ride in a federally approved car seat/booster seat that meets their weight/height until they are 8 years old or 4 foot 9 inches tall. All back seat passengers who are 8 years old or taller than 4'9" tall, must use a seat belt when sitting in a designated seating position.

Seat Belt vs. Booster Seat Challenge

How to know if your 8 year old is ready for the seat belt only:

- I can sit with my back and hips all the way against the back of the seat and sit without slouching.
- I can bend my knees over the edge of the seat and my feet stay flat on the floor.
- My seat belt crosses my shoulder and the middle of my chest...not my neck, and lays across my hips...not my stomach.
- The headrest is high enough to support my head.
- I can sit this way for the entire ride.

Safe Kids Tarrant County led by Cook Children's, is a local grassroots coalition which focuses its effort on childhood injury prevention. They have weekly car seat checks in Fort Worth and Arlington, and quarterly events on Saturdays. **Ninety-eight percent of the car seats checked are not installed or being used correctly!!** If you have a question about the new law or would like to get your car seat checked by certified child passenger safety technicians – please call the appointment line at 682-885-2634. Pass on this important information to your family and friends.

Article presented by: Terri Ford, Safe Kids of Tarrant County, Fort Worth, TX

BINGE DRINKING AS PRESENTED AT AHRQ CONFERENCEContext:

Heart disease is the leading cause of death in the United States. It encompasses several specific heart conditions, the most common being coronary heart disease.¹ Accordingly, researchers have fervently investigated possible causes, factors and confounders to decrease the mortality rates associated with heart disease. Studies among coronary heart disease patients have observed the roles of inflammatory markers, coronary calcification, blood cholesterol and several other associated risk factors.²⁻⁴ A commonly approached topic in heart disease is that of the relationship between alcohol consumption and cardiovascular risk. Several studies have observed a lower incidence of cardiovascular events with moderate alcohol consumption.²⁻⁴ Adversely, higher alcohol consumption has been associated with higher levels of cardiovascular disease.²⁻⁴ Despite the prevalence of research in this area, far fewer studies have examined the relationship between binge-drinking and cardiovascular risk.⁵

Purpose:

Evidence suggests that binge drinking is associated with increased risk in cardiovascular events. The purpose of this analysis was to assess the association of binge drinking and coronary artery calcification (CAC) by race/ethnicity.

Methods:

Participants were recruited from the North Texas Primary Care Practice-Based Research Network (NorTex), from April 2006 to May 2008, for the North Texas Healthy Heart (NTHH) Study. NTHH

is a cross-sectional study involving non-Hispanic whites, non-Hispanic African Americans, and Hispanics. Participants were screened for eligibility: 45 years and above and no prior or current history of heart disease. Participants had a one-hour face-to-face interview. Body measurements, lab analyses, and multi-slice computed tomography of the heart and abdomen were taken. Race and ethnicity and binge drinking were self-reported. Binge drinking was ascertained from the question, "How often do you have four or more drinks on one occasion?" Responses were dichotomized to "No" or "Any." Multiple logistic regression was performed for each race/ethnicity. Odds ratios (OR), and 95% confidence intervals (CI) are presented. CAC was categorized as 0 or > 0. Regression analyses controlled for known risk factors for CAC: age, gender, education, smoking, BMI, hypertension, diabetes, hyperlipidemia, and family history.

Results:

Of the 571 participants, 146 (26%) were White, 205 (36%) were African American, and 210 (37%) were Hispanic. 350 (62%) were female, 164 (30%) responded "Yes" to binge drinking, and 186 (37%) had a CAC > 0. After controlling for known risk factors, the association between binge drinking with CAC was not statistically significant [OR=0.99; 95% CI (0.58, 1.67)] with all race/ethnicities combined and individually; Whites, [OR=2.17; 95% CI (0.84, 5.60)] Hispanics, [OR=0.81; 95% CI(0.31, 2.16)] and African Americans [OR=0.37; 95% CI (0.14, 1.02)].

Conclusions:

The association between binge drinking and CAC was not statistically significant among all racial/ethnic groups. However, among African Americans, the association between CAC and binge drinking approached significance in a protective manner with

those who binge drink being 63% less likely to have a CAC greater than 0. This association should be further explored with a larger sample size.

Article presented by: Anna Espinoza, MD, Senior Project Coordinator; Nicole Beltran, MA, Research Coordinator; Lorna Brooks; Research Coordinator; Kimberly Fulda, DrPH, Associate Director; Joan Carroll, PhD, NorTex Collaborative Partner; Roberto Cardarelli, DO, MPH, FAAFP, Director; PCRI/NorTex

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ACCEPTABILITY OF THE HPV VACCINE IN TARRANT COUNTY

The human papillomavirus virus (HPV) is the most common sexually transmitted disease in the United States. It affects an estimated 20 million Americans who carry the virus, with another 6.2 million acquiring HPV each year. Serious health risks are linked to HPV, with the most common risks being genital warts and cervical cancer. A vaccine recently made available protects against two low risk types of HPV responsible for 90% of genital warts and two high risk types responsible for 70% of all cervical cancers.

The Center for Community Health (in collaboration with the Primary Care Research Institute, Tarrant County Public Health, and the Fort Worth Women's Health Initiative) recently conducted a study on acceptability of the HPV vaccine by caregivers of African American girls in Tarrant County. The study collected information on the knowledge of caregivers about HPV and the HPV vaccine. The study also addressed how the caregivers make their decisions about vaccinating their children. The study found that participants lacked sufficient knowledge on HPV. Many participants expressed a desire for more information and research on HPV, yet many also indicated that they did not have a reliable source of information about HPV.

Caregivers in this study expressed concerns regarding the HPV vaccine in terms of safety of the vaccine, the association of HPV and sexual behaviors, and overall negative views about the vaccine. Participants were worried about the safety of the vaccine due to a belief that the vaccine was new and lacking research. There was also concern about unwanted immediate and long term side effects that may jeopardize their child's health. Many of the caregivers expressed acceptability of the vaccine because they were encouraged by trying to teach their children to abstain from participating in any sexual activity until marriage. Several caregivers said they were unwilling to vaccinate their children

due to overall negative views about the vaccine related to distrust of the medical/drug company community as well as negative reactions to HPV mandates.

The HPV Vaccine Acceptability Study found that some effective ways to communicate HPV and HPV vaccine information to participants include pamphlets, magazines, insurance plans, radio, sporting events and community organizations such as schools, churches, and libraries. The Center for Community Health and its partners are currently developing HPV and HPV vaccine outreach programs for adolescents and caregivers in order to promote informed decision making about the HPV vaccine.

For more info regarding HPV and other issues, please visit www.centerforcommunityhealth.org.

Article provided by: Lauren Villegas, UNTHSC Center for Community Health

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PCRI CONGRATULATES 2009 GRADUATES

The PCRI had three dual degree DO/MS students graduating from our Primary Care Clinical Research Fellowship in Spring and Summer 2009. Kelly Sprawls will be joining Harvard University at Cambridge for a Primary Care Internal Medicine residency. Dr. Sprawl's thesis was titled "Chronic Disease Status, Sleep Quality, and TNF-alpha - Understanding Pathophysiologic Processes." Billy Effinger will be joining Westchester General Hospital in Miami, FL for a Traditional Internship. Dr. Effinger's thesis was titled "Mental Health Pathology, Substance Use Disorders, and Criminality in the Tarrant County Treatment Alternatives to Incarceration Program Probationer Population: Implications Regarding Mental Health Screening, Assessment, and Treatment Referral Practices." Michael Dunn will be joining Christus Spohn Health Systems in Corpus Christi, TX for a Family Medicine residency. Dr. Dunn's thesis was titled "Understanding the Psychosocial Factors of Communication that Underlie Colorectal Cancer-Screening Adherence".

We wish each graduate continued success as they move into their chosen specialties. Congratulations!



*TCOM Awards Banquet 2009
Sital Sampat-Patel, Kelly Sprawls, Michael Dunn*

DISTINGUISHED SPEAKER SERIES A SUCCESS!

On July 23, 2009, the PCRI co-hosted the Distinguished Speaker Series at UNTHSC. We were excited to have George Rust, MD, MPH as the invited speaker. Dr. Rust is a Professor of Family Medicine and the Director of the National Center for Primary Care at Morehouse School of Medicine in Atlanta, Georgia. The title of Dr. Rust's presentation was "Real-World Research to Achieve Optimal and Equitable Health Outcomes".

His presentation focused on eliminating health disparities and inequitable distribution of care in primary care practice through research. He emphasized conducting translational research in real-world practices, high-disparity populations, and underserved communities with limited resources. Primary care research should be relevant in that it applies to and improves the health of all populations, not just those who have better access. Dr. Rust's recommendations fit well with conducting research using primary care practice-based networks such as NorTex.

Dr. Rust's presentation was followed by a panel discussion. The panel discussion centered on health disparities and primary care researchers. The panel members included Mark DeHaven, PhD, Professor and Chief of Community Health Sciences, Department of Clinical Sciences, UT Southwestern Medical Center; Darrin D'Agostino, DO, MPH, Chair and Associate Professor, Department of Internal Medicine, Texas College of Osteopathic Medicine, UNTHSC; Carlos Reyes, MD, PhD, Associate Professor, Department of Social and Behavioral Sciences, School of Public Health, UNTHSC; and Robert Kaman, PhD, JD, Associate Dean and Director, Office of Outreach, Graduate School of Biomedical Sciences, UNTHSC.

*Articles provided by: Kimberly Fulda, DrPH,
Associate Director PCRI / NorTex*

NorTex Convocation of Practices

NorTex hosted its first annual Convocation of Practices on April 25, 2009 titled “The NorTex Convocation of Practices: Translating Research into Improved Patient Care”. The Convocation of Practices serves as a forum to update NorTex members on current and recently completed projects as well as provide a venue for NorTex members to give input in the future direction of NorTex. To truly make a difference in primary care, it is imperative that we understand the issues facing our community! Several excellent discussions and ideas were generated from the interactions.

A list of the panel discussions and presentations with presenters is given below. The day closed with a Conversation Café during which NorTex members were asked what challenges they face in providing the best care possible to their patients. We received excellent feedback that will provide guidance in the future direction of NorTex projects.



NorTex Convocation of Practices Mini Health Fair

Concurrently to the scientific presentations, NorTex research participants attended a mini health fair in the afternoon. Approximately 60 people attended. They received education about the research studies they participated in as well as health education. Screenings were provided for blood pressure,

weight, body fat, osteoporosis, and glucose. Safe Kids of Tarrant County provided information on preventing poisonings among kids. Additionally, osteopathic manipulative services were provided.



*NorTex Convocation of Practices
Conversation Café Roundtable Discussion*

We hope to make this an annual event to give back to our researchers and community. Overall, the day was a success, and we look forward to working with you on the second annual NorTex Convocation of Practices in 2010.



*NorTex Convocation of Practices
Dissemination Presentation*

PCRI/NorTex News

Items discussed and presenter information for the first NorTex Convocation of Practices is listed as follows:

Translating Research into Improved Patient Care

Panelists:

- James Marshall, MD, Medical Director of Clinical Research, Cook Children's Health Care System
- Richard Young, MD, Director of Research and Associate Program Director of the Family Medicine Residency Program, JPS Health Network
- Susan Spalding, MD, Medical Director of the Homeless Outreach Medical Services, Parkland Health and Hospital System, Medical Director, Children's Health Project

Moderator:

- Kimberly Fulda, DrPH, Associate Director of PCRI / NorTex , Interim Vice Chair of Research for the Department of Family Medicine, UNTHSC

Recruitment Challenges and Ethical Research

Panelists:

- Christopher Mann, DO, Medical Director, New Help Clinics Inc., P.A.
- Cathleen Kearns, BS, Administrative Director, Osteopathic Research Center, UNTHSC
- Nicole Beltran, BS, Research Project Manager, PCRI / NorTex, UNTHSC
- Kristen Hahn, MPH, Research Project Manager, PCRI / NorTex, UNTHSC

Moderator:

- Alan Podawiltz, DO, Interim Vice President for Health Affairs, UNTHSC

Cancer Screening Initiative Project

- Roberto Cardarelli, DO, MPH, Executive Director of PCRI / NorTex, Acting Chair of Family Medicine, UNTHSC

North Texas Healthy Heart Study

- Roberto Cardarelli, DO, MPH, Executive Director of PCRI / NorTex, Acting Chair of Family Medicine, UNTHSC
- Joan Carroll, PhD; Assistant Professor, Department of Integrative Physiology, UNTHSC

HPV Vaccine Acceptability Study Results

- Kathryn Cardarelli, PhD, Director of the Community Health Center, UNTHSC

Cancer Screening Initiative Project Update

- Kimberly Fulda, DrPH, Associate Director of PCRI / NorTex, Interim Vice Chair of Research for Family Medicine, UNTHSC



*NorTex Convocation of Practices
Participant Reception*

PCRI/NorTex Projects**PCRI / NORTEX PROJECTS**

This list represents ongoing and recently completed projects occurring at the Primary Care Research Institute (PCRI) at the University of North Texas Health Science Center. Projects specific to the North Texas Primary Care Practice-Based Research Network (NorTex) are listed separately.

PCRI PROJECTS**The Mental Health Screening and Treatment Initiative (MHSTI)**

The Mental Health Screening and Treatment Initiative (MHSTI) is a collaborative, multi-institutional project developed by investigators from the Primary Care Research Institute (PCRI) at the University of North Texas Health Science Center at Fort Worth (UNTHSC), Texas Wesleyan University, and Tarrant County Community Supervision and Corrections Department (TC-CSCD). The overarching goal of the MHSTI project is to provide routine mental health screenings using an innovative audiovisual computer system for TC-TAIP probationers during routine visits with Licensed Chemical Dependency Counselors (LCDCs). This will be a key step towards developing a comprehensive treatment program for this underserved population. This program will have significant community and public health implications by reducing recidivism, and making a safer and more productive Texas. Additionally, the model contained in this proposal has great potential as a replicable model for probation departments across the state and nation. (PIs: R Cardarelli & C Mann; Funded by: the Meadows Foundation and the Byrne Foundation)

The Tachygraphic Color-Organized Medication System Study (TCOM)

The Tachygraphic Color-Organized Medication System (TCOM) study seeks to provide a tachygraphic color organized medication system aimed at reducing medication errors. This system will provide a set of medication symbols that will improve a patient's ability to more rapidly and accurately identify their medications. The long term goal of this

study is to reduce medication errors by incorporating a visual aid onto medication bottles as an adjunct to current national multidisciplinary efforts. The TCOM study will be conducted in two phases: focus groups and a pre-post test. Focus groups will be conducted during which participants will provide feedback on the preliminary medication symbol system for each of the 16 different medication classifications (Phase 1). Once these symbols are further refined based on the qualitative data of the focus groups, they will be tested for accuracy in correctly identifying medications, their purpose, and dosing information (Phase 2). (PIs: R Cardarelli & C Mann; Funded by: the American Academy of Family Physicians)

NORTEX PROJECTS***Current NorTex Studies*****North Texas Healthy Heart (NTHH)**

The North Texas Healthy Heart (NTHH) study assesses the relationship of various psychosocial factors and cardiovascular physiologic markers to better understand potential contributors to cardiovascular health disparities. Participants undergo an extensive interview, body measurements, blood testing, and multi-slice computed tomography of the heart and abdomen to obtain calcium scores and visceral fat scores. This study has taken place in two phases, with a total of 571 participants having been recruited. Currently, about 230 of these 571 participants have returned for a two year follow-up visit to repeat study related measures. An additional year of funding has been awarded to continue inviting additional participants for a repeat visit. (PI: R Cardarelli; NIH/NCMHD 1-P20-MD001633-010003)

Knowledge, Attitudes, Beliefs about Fibromyalgia

The purpose of this study is to conduct a performance improvement activity among NorTex clinician members on fibromyalgia. The study includes three phases. During Phase I, we will survey physicians about their knowledge, attitudes, and beliefs about fibromyalgia. A chart review will then be conducted to determine physician practices for diagnos-

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ing and treating fibromyalgia. During Phase II, physicians will receive information about fibromyalgia specific to the results of their survey and chart reviews. Phase III will include resurveying the physicians to determine differences pre/post to education intervention. Physicians will receive a total of 20 hours of CME credit for participating in the entire process. (PI: R Cardarelli; Funded by: UNTHSC PACE Office and Pfizer Medical Education Group)

Race and Differences in Asthma Prevalence among Children in Tarrant County Texas

The purpose of this study is to examine the association between race and asthma among children in Tarrant County. The study is translational and includes a population-based epidemiological component and a patient-based individual component. The epidemiological component of the study examines characteristics of patients' environments including data from the Environmental Protection Agency, Tarrant County Public Health, and the U.S. Census Bureau. The individual component of the study examines patient characteristics obtained from survey questionnaires, blood samples, dust samples from patients' homes, and genetic studies. (PIs: B Benz, H Jones, & N Lackan; Funded by: UNTHSC EXPORT Center Intramural grant)

Communities, Communication, and Health Study

This study assesses the impact of interpersonal processes of care on adherence to highly active anti-retroviral therapy (HAART) regimens and perceived general health. Significant disparities exist in HIV/AIDS morbidity and mortality despite an overall decline in the past decade. Some have postulated that the physician-patient relationship may influence patient behavior, such as adherence to prescribed therapy, and impact health. The preliminary study results suggest an association between interpersonal processes of care domains and perceived general health. A total of 110 participants with HIV and/or AIDS were recruited from an affiliated NorTex clinic. All participants underwent an extensive interview using validated instruments. The study is a collaborative project with Tarrant

County Public Health. It recruited 105 participants in only 20 weeks. Currently, final data collection is in process. (PIs: R Cardarelli, E Adams, & S Weis)

Identification of a Novel mAR to Explain an Epidemiological Finding in Gliomas

The purpose of this study is to examine the cross-sectional association of plasma testosterone and membrane androgen receptor (mAR) with age, race, and gender in healthy subjects. The overall objectives are to determine whether there is a correlation between mAR and hormone levels and to what extent this relationship could be explained by potential confounding factors age, race, and gender. Blood samples will be collected from a sample of 70 Caucasian, African American, and Hispanic men and women in the North Texas Healthy Heart (NTHH) study. (PI: M Felini; Funded by: UNTHSC School of Public Health Intramural Grant Program)

Behavioral Determinants of Methylation Abnormalities: a Pilot Study of Potential Markers for Cancer Prevention and Control

The overall objective of this study is to identify behavioral risk factors that are associated with abnormal patterns of gene-specific hypermethylation in healthy men and women. Specifically, we will examine whether modifiable behavioral risk factors including diet, physical activity, smoking, alcohol drinking, body mass index, and life stress are associated with methylation abnormalities detected in the peripheral blood of healthy men and women. Participants are from the North Texas Healthy Heart (NTHH) study. (PI: F Zhang; Funded by: UNTHSC School of Public Health Intramural Grant Program)

North Texas Participant Registry Project (NRP)

This project aims to involve all NorTex clinics to enroll patients into the North Texas Participant Registry Project (NRP). Front desk personnel hand out 4X6 cards to all patients checking in for their appointments. This card has detailed information about the project on one side of the card and collects demographic and medical histories on the other side. Patients place completed cards inside a

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secured ballot box if they decide to participate. This information provides NorTex researchers the ability to contact potentially eligible participants for future projects. Currently, 13 NorTex clinics are involved, and close to 600 patients have returned cards. We hope to grow this database to 10,000 potential research participants in the first several years. (PI: R Cardarelli)

Completed NorTex StudiesNorTex Needs Assessment

NorTex secured funding to conduct a needs assessment among its clinics to establish the health care needs of its population. The purpose of this needs assessment project was to assess the current delivery of care in the North Texas region in the areas of pediatric care, cardiovascular disease, cancer screening, and immunizations. Clinicians completed a survey of their knowledge, attitudes, and beliefs and were asked to review 5 random charts to assess practice patterns in these areas. A second aim of the study was to assess whether monetary compensation or CME credits were more influential on physician participation. Clinics and their clinicians were recruited from a pool of NorTex member clinics. This study was completed in April 2009, and data analysis is currently underway. (PI: R Cardarelli; Funded by: Pfizer Medical Education Group)

The Cancer Screening Initiative Project

The aim of the Cancer Screening Initiative Project was to conduct a cluster randomized controlled trial to assess whether a DVD educational intervention about current cancer screening guidelines impacts clinician knowledge and attitudes about cancer screening and improves overall patient cancer screening recommendations and ordering rates. Ten NorTex member clinics were recruited and completed the study, 5 control and 5 who received the DVD. A survey was conducted in order to assess clinician knowledge, beliefs, attitudes, and practice on cancer screening both prior to and after DVD distribution. In addition to the survey, 30 medical chart reviews were completed at each participating clinic for a total of 300 medical chart reviews. Each

clinician received CME credit for their participation and contributions to the study. This study was completed in August 2009, and data analysis is currently in progress. (PI: R Cardarelli; Funded by: Moncrief Cancer Resource Center)

The Relationship of Visceral Fat to Lipid and Inflammatory Cardiovascular Risk Factors

This sub-study of the North Texas Healthy Heart (NTHH) study assessed racial/ethnic differences in central fat distribution and the relationship to lipid and inflammatory cardiovascular risk factors. In addition to the testing described above, participants also underwent an abdominal computed tomography to obtain internal adipose measurements. This study was completed in June 2009, and data analysis is currently in progress. (UNTHSC EXPORT Center Intramural grant; PI: J Carroll)



*2009 PCRI/NorTex Graduating Fellows
Kelly Sprawls & William Effinger*

EVENT NEWS...

PLEASE SAVE THE DATES

COME JOIN: The Tarrant County Infant Mortality Network
Celebrate Infant Mortality Awareness Month**KICK OFF EVENT**

Date: Wednesday, August 26, 2009
Time: 10:00am-12:00pm
Location: Tarrant County Public Health Department
 1101 Main Street
 Fort Worth, Texas 76104

**8TH ANNUAL
INFANT MORTALITY SUMMIT****Improving Perinatal Outcomes:
Focusing on Fathers**

Date: Friday, September 18, 2009
Time: 8:00am-3:00pm
Location: Cookes Children Medical Center
 801 Seventh Ave
 Fort Worth, Texas 76104

Keynote Speaker
 Michael Hyman, PhD
 CEU's and CNE's available

**SEPTEMBER STROLL FOR
BABIES****Big Steps for Little Steps**

Date: Saturday, September 19, 2009
Time: 8:30am-12:00pm
Location: Trinity Park
 2401 University Drive
 Fort Worth, Texas 76107

www.StrollForBabies.com

The Tarrant County Infant Mortality Network is a community-based collaborative lead by Catholic Charities, Diocese of Fort Worth, Inc.

Just a Reminder to our Readers...

This issue of the Primary Care Research Journal has been written in collaboration with our collaborative research partners as well as PCRI/NorTex participating clinicians and staff members.

We hope you enjoy this issue of the journal. Should you have any questions or comments regarding the PCRI Journal or if you are interested in contributing to future issues, please call 817-735-2405 or e-mail PCRI@hsc.unt.edu.

This journal is now available for review online. Articles can be submitted and the journal can be reviewed by going to: <http://www.digitalcommons.hsc.unt.edu/pcrj>




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