



Pennsylvania Shaken Baby Syndrome Prevention & Awareness Program

"Saving babies' lives one family at a time."

Evaluating the Relationship Between the Economy and the Rate of Abusive Head Trauma

Data collected at Children's Hospital of Pittsburgh of UPMC (CHP) was recently part of a multi-center study which evaluated the relationship between the rate of abusive head trauma (AHT) and the economy. As part of this study, which was funded by the Matty Eappen Foundation, data were collected about all cases of unequivocal AHT in a 74-county region of four states: Washington, Ohio, Kentucky and Pennsylvania. The PA region included the 23-county encatchment area of CHP. All children <5 yr of age who were diagnosed with AHT between 1/1/04 and 6/30/09 were included in the analysis. The economic recession officially began 12/1/07 and ended 6/30/09. In addition, data were collected about the number of children <5 yr who were admitted with non-inflicted TBI (e.g. accidental TBI) during the same time period.

The study was performed, in part, because of numerous articles in the lay press which had suggested that there had been an increase in the amount and severity of physical abuse since the start of the recession. This anecdotal information, however, was in contrast to the 2008 and 2009 Annual National Reports on Child Maltreatment which both reported a decrease in child maltreatment and specifically a decrease in child physical abuse.

For each subject in the study, demographic information including county of residence and clinical data were collected. Quarterly unemployment rates were also collected for all counties in the 74-county encatchment area.

A total of 422 children with AHT were identified at the four sites during the 5½-year study period. More than 100 of these children were from Western PA. Analysis of the data using a Poisson regression analysis demonstrated that the rate of AHT increased significantly during the recession compared to the pre-recession period for each region individually and for the 74-county collective region. The overall incidence rate ratio for the recession was 1.65 (95% CI, 1.60-1.69) which means that the chance of sustaining an AHT during the recession was 1.65 fold higher than before the recession for the entire 74-county region.

In the 23-county region of Western Pennsylvania, the overall rate of AHT in children <5 yr of age increased from 8.7 (95% CI: 6.6-10.8) per 100,000 to 20.8 (95% CI:15.6-25.9) per 100,000, while the rate in children <1 yr of age increased from 46.0 (95% CI: 33.5-58.6) per 100,000 to 61.7 (38.0-85.4) per 100,000. (continued on page 2)

Volume 8 Issue 2

Second Quarter 2011

Special points of interest:

- Increase in child abuse during recession
- SBS policy update



Keep Babies Safe On Hot Summer Days!

Inside this issue:

Third International	3
Conference on Pediatric	
Abusive Head Trauma	
Did You Know	3
Program History	4
Sample SBS Policy	5
Inside	
Pediatric Abusive Head	5
Trauma Conference	

Pennsylvania Shaken Baby Syndrome Prevention & Awareness Program

Evaluating the Relationship Between the Economy and the Rate of Abusive Head Trauma (continued from page 1)

There were no differences in mean age, mortality, insurance status, proportion of children without siblings or proportion of children with evidence of previous abuse during the recession compared with the pre-recession period. There was also no increase in the number of cases of non-inflicted TBI at Children's Hospital of Pittsburgh during the recession compared with the pre-recession period. Although unemployment increased during the recession in all three regions there was no association between AHT rates and county unemployment rates.

This study which is currently in revision at the journal Pediatrics demonstrated a marked increase in the rate of AHT during an economic recession in three distinct geographic regions encompassing a total of 74-counties and including a large region of Pennsylvania. If other regions of the country have seen similar increases, this corresponds to hundreds, if not thousands, of excess AHT cases. Given the acute and long-term costs of caring for children with AHT, the result of this study may have policy implications for resource-allocation for AHT during a recession as well as clinical implications for medical professionals who make decisions about when to evaluate for AHT. The stark contrast between the results of this study and national as well as state data related to the rate of physical abuse is also disconcerting and requires further evaluation. The results also suggest that future research may focus on identifying triggers for AHT which might be specific to times of economic hardship and which may be amenable to intervention within the economic environment of a recession.

Rachel P Berger MD, MPH

Child Advocacy Center/Children's Hospital of Pittsburgh of UPMC Co-investigator CDC Abusive Head Trauma Grant/PA Shaken Baby Syndrome Prevention & Awareness Program

Is it time to update your Infant Abusive Head Trauma Education Policy?

A number of Pennsylvania hospitals are in the process of updating their nursing policies. Many have contacted the PA Shaken Baby Syndrome Prevention Program office recently for guidance about their SBS policy. In order to ensure state-wide consistency in the Shaken Baby Syndrome prevention education that is provided by nursing staff across the Commonwealth, in accordance with PA Act 2002-176, we have enclosed a sample policy recommendation sheet in this newsletter. The recommendations in this sample policy are consistent with the community standard of nursing practice for SBS education in the state of Pennsylvania. Please feel free to use these guidelines to develop a policy for your hospital.

Keep in mind that the PA state law mandates that all parents of all babies born in Pennsylvania receive Shaken Baby Syndrome education prior to the baby's discharge from the hospital. A formal SBS policy should be part of every Pennsylvania hospital policy manual.



Nursing policies should reflect the community standard of practice for care and education which is provided to patients. Guidelines should be clear so that all patients receive treatment and education in a consistent manner. Volume 8 Issue 2 Page 3

Third International Conference on Pediatric Abusive Head Trauma Planned for San Francisco July 2011



Mark Dias, MD, Pediatric Neurosurgeon, Professor of Neurosurgery and Vice Chair of Clinical Neurosurgery at Penn State Milton S. Hershey Medical Center and the Pennsylvania SBS Program Nurse Coordinators are excited to announce the *Third International Conference on Pediatric Abusive Head Trauma: Medical, Forensic and Scientific Advances and Prevention.* This research based conference will be held July 7 & 8, 2011 at the Sir Francis Drake Hotel in San Francisco, California.

Building on the success of the First International Conference held in 2007 in Hershey, Pennsylvania, & the Second International Conference held in Jackson Hole Wyoming in 2009, this research based conference provides a unique opportunity to bring together physicians, nurses, researchers, forensic scientists, engineers, and others from a wide range of disciplines to share their research efforts, discuss research challenges and controversies in this field, and develop cross-disciplinary collaborations to further advance our understanding of abusive head injuries.

A conference brochure is enclosed as an insert in this newsletter. For more information or to register online go to: www.hmc.psu.edu/ce/aht/

りつりつりつりつりつりつりつりつ

Nursing Staff Request SBS Newsletter Information

Staff nurses from a number of PA hospitals have expressed an interest in receiving the PA SBS newsletters. Because of limited funding we regret to inform you that we can not afford to mail hard copies of newsletters to all nurses in Pennsylvania. The nurse managers, educators and key contacts in each hospital and birthing hospital will continue to receive them quarterly. However, all staff can view them on our website at http://www.pennstatehershey.org/web/shakenbaby/home

In our 3rd quarter 2010 PA SBS newsletter, page 3, we reported that nurse managers have seen an increase in staff compliance with SBS education once they began to post their hard copies of the newsletter in the staff lounge. Other managers discuss the newsletter contents during routine staff meetings. Thank you for sharing this information with your staff!

Teach parents how to handle their little ones with love and care. They are only babies for such a short time!



DID YOU KNOW...

that shaken baby syndrome prevention education can not be combined with safe sleep information. Even though both forms of education are incredibly valuable for protecting infants, the Pennsylvania SBS Education Act 2002-176 states that SBS education must be given separately from other education. Therefore nurses are to continue their practice of providing SBS education separate from all other postpartum education. The ONLY EXCEPTION is that education on infant crying and coping with crying techniques CAN and SHOULD be taught at the same time since crying is the impetus for many abusive head injuries.



Pennsylvania Shaken Baby Syndrome Prevention & Awareness Program Saving babies' lives one family at a time.

Penn State Hershey Medical Center Penn State College of Medicine Penn State Children's Hospital 500 University Drive Mail Code G130 PO Box 850 Hershey, PA 17033

Mark Dias, MD, FAAP (mdias@psu.edu)
Professor & Vice Chair of Clinical Neurosurgery
Penn Sate College of Medicine/SBS Program
Founder
Phone (717) 531-8807

Kelly Cappos, RN, BSN, CPUR, CLNC (kcappos@psu.edu)
Marie Killian, RN, BSN, CCRN (mkillian@psu.edu)
Carroll Rottmund, RN, BSN, CCRN, CLNC, CMI
(crottmund@psu.edu)

PA SBS Program Nurse Coordinators Phone (717) 531-7498 Fax: (717) 531-0177

Preventing Infant Abusive Head Trauma through Parent Education

The Shaken Baby Syndrome Prevention & Awareness Program was developed in 1998 in Upstate New York by Dr. Mark Dias, Pediatric Neurosurgeon. Since the inception of the SBS program, Upstate New York has reduced the incidence of infant abusive head injuries by nearly 50%. In 2002, the identical program was started as a pilot study in central Pennsylvania and Pennsylvania Law 2002-176: *The Shaken Baby Syndrome Education Act* was passed. The program partnered with the Pennsylvania Department of Health and by 2006 became the first state in the nation to provide consistent hospital based education in 100% of all birthing and children's hospitals in Pennsylvania according to the Dias Model. In 2007, The Centers for Disease Control & Prevention (CDC) awarded

In 2007, The Centers for Disease Control & Prevention (CDC) awarded the Pennsylvania Shaken Baby Syndrome Prevention & Awareness Program a \$2.8 million dollar grant to continue the prevention efforts by expanding the education into pediatric and family practice offices in 16 counties in Central Pennsylvania. Phase II of the program is funded by the CDC for five years.

The Pennsylvania Shaken Baby Syndrome Prevention & Awareness Program, through funding from the PA Department of Health, provides PNA approved nursing in-services, supplies, educational videos and guidance free of charge to all PA hospitals & birth centers.

Our goal, with your help, is to ensure that every parent of every child born in Pennsylvania receives education on shaken baby syndrome!

りつりつりつりつりつりつりつりつ

Pennsylvania Hospitals and Birth Centers Providing Infant Abusive Head Trauma Education

Abington Memorial Hospital Albert Einstein Medical Center Altoona Hospital Armstrong Center for Med & Hlth **Berwick Hospital Center Birth Care & Family Health Svcs** Birth Center: Bryn Mawr **Bloomsburg Hospital Bradford Regional Med. Center Butler Memorial Hospital** Carlisle Regional Med Center **Chambersburg Hospital Charles Cole Memorial Hospital Chester County Hospital** Children's Hospital: Philadelphia Children's Hospital: Pittsburgh Clarion Hospital Clearfield Hospital Conemaugh Memorial Med Center Crozer Chester Medical Center Delaware County Memorial Hosp **Doylestown Hospital Dubois Regional Medical Center Easton Hospital** Elk Regional Medical Center **Ellwood City Hospital** Ephrata Hospital **Evangelical Community Hospital** Excela Health: Westmoreland

Forbes Regional Hospital Main Line: Paoli Geisinger Medical Center Gettysburg Hospital GMC: Wyoming Valley Good Samaritan: Lebanon **Grand View Hospital Grove City Medical Center** Hahnemann University Hospital Hamot Medical Center Hanover General Hospital Harrisburg Hospital Hazelton General Hospital Heart of Lancaster Regional Med Ctr Heritage Valley HS: Beaver Holy Redeemer Hosp & Medical Ctr **Holy Spirit Hospital** Hosp University of Pennsylvania Indiana Regional Med Center Jameson North Memorial Hospital J.C. Blair Memorial Hospital Jennersville Regional Hosp. Lancaster Gen Women & Babies Hosp Lower Bucks Lehigh Valley Hospital Lewistown Hospital Lock Haven Hospital Magee Woman's Hospital Main Line: Bryn Mawr Main Line: Lankenau

Meadville Medical Center Memorial Hospital: Towanda Memorial Hospital: York Mercy Hospital: Pittsburgh **Mercy Jeannette Hospital** Midwife Ctr for Birth & Womens Hlth Millcreek Community Hospital **Montgomery Hospital Moses Taylor Hospital** Mt. Nittany Medical Center **Nason Hospital** Penn State Hershev Medical Center Pennsylvania Hospital Phoenixville Hospital **Pocono Medical Center** Pottstown Memorial Med. Center **Punxsutawney Hospital** Reading Birth & Women's Center Reading Hospital & Med Center Riddle Memorial Hospital **Robert Packer Hospital** Sacred Heart Hospital Schuylkill Medical Center Sewickley Valley Hospital **Sharon Regional Health Soldiers & Sailors Memorial Somerset Hospital Health Center** St. Christopher's Hospital

St. Clair Memorial Hospital St. Joseph Med Center of Reading St. Luke's Hospital: Allentown St. Luke's Hospital: Bethlehem St. Mary's Medical Center St. Vincent Medical Center **Temple University Hospital** Thomas Jefferson University Hosp Titusville Area Hospital Uniontown Hospital **UPMC: Bedford Memorial UPMC Horizon: Shenango Valley UPMC: Northwest** Valley Birth Place Warren General Hospital Washington Hospital Wayne Memorial Hospital Waynesboro Hospital Western PA Hospital Wilkes-Barre General Hosp. Williamsport Hospital Windber Medical Center York Hospital

