

Kiwanis Pediatric Trauma Institute
2010 Annual Report



Floating Hospital For Children
at Tufts Medical Center

800 Washington Street, #344

Boston, MA 02111

www.kpti.org

617-636-6381

Director's Message

Dear New England Kiwanians;

Because of your support, the Kiwanis Pediatric Trauma Institute program continues to reach tens of thousands of children across New England each year. During the past year, KPTI has been able to constantly re-evaluate the effectiveness of programs and provide the greatest value to all parties involved. The following report will outline the activities of the year, giving you, our major supporters, the facts on how your donations are used and what you have provided to the New England community. On behalf of the Kiwanis Pediatric Trauma Institute, the Floating Hospital at Tufts Medical Center, as well as the children of New England and the world, thank you for your generosity and continued support.

Sincerely,

A handwritten signature in black ink, appearing to read "Walter Chwals, MD". The signature is fluid and cursive, with a small "MD" at the end.

Dr. Walter Chwals

Director

What is KPTI?

The Kiwanis Pediatric Trauma Institute (KPTI) is dedicated to the specialized care of pediatric trauma patients and to the health and safety of all children.

KPTI, located in Boston, Massachusetts, is a partnership between New England Kiwanians, Kiwanis Foundation of New England, and the Floating Hospital for Children at Tufts Medical Center. The institute supports programs in three major areas:

- **Medical Treatment**
- **Pediatric Trauma Research**
- **Injury Prevention and Public Awareness**

The greatest killer of children in developed nations is not a disease, but accidental injury or *pediatric trauma*. It kills more children than all diseases combined. Every year in the United States, nearly 10,000 children die and another 100,000 are permanently disabled because of accidental injury.

For 30 years KPTI has been helping to reduce the number of accidents, but no matter how careful we are, some children will suffer severe injuries. Children are not miniature adults and respond to trauma in ways very different from adults.

That's why KPTI has an entire system designed to respond to pediatric trauma, which includes well trained emergency medical technicians, local hospitals that can treat most injured children and a regional pediatric trauma center to which the most severely injured children will be sent for treatment by a team of doctors well versed in the special needs of the patient.

The KPTI GenRe Research Center is conducting research into the special problems of closed head trauma in children to advance our knowledge for treatment of these injuries.

Our community outreach programs are designed to bring information in a fun and engaging format to parents and children, promoting a safe childhood for every child.

KPTI is a non-profit, tax exempt organization. The programs and services provided by the Institute are supported by the Floating Hospital for Children at Tufts Medical Center, Kiwanis Foundation of New England, New England District of Kiwanis, New England District of Key Clubs, New England District of Circle K and by donations from individuals, corporations and foundations.

Injury Prevention and Public Awareness

The Accident Prevention and Public Awareness component consists of educational programs run both in the hospital and through Kiwanis clubs across New England. The following is a list of projects and activities run through the Kiwanis Pediatric Trauma Institute in the past year. Altogether, these programs reach approximately 25,000 children and their families each year.

- Kiwanis Family Safety Day and Bike Rodeos
- Key Clubby Bears
- Hap Gerrish Kiwanis Pediatric Trauma Registry
- Pediatric Emergency Card
- Trauma Dolls
- Spinoza Bear and Puppets
- Kiwanis Family Waiting Room
- Pediatric Trauma Lecture Series
- Donations for Tufts Medical Center's Child Life Dept.
- Early Childhood Injury Prevention
- Project B.E.L.T.S.
- KPTI Day Open House
- Pediatric Trauma Management Course
- Fleece Blankets for patients
- Hospital Displays
- I'm Safe on My Bike New England
- Child safety seats for patients
- Bullying pamphlets for preteens
- ATLS Certification courses

In addition to the outreach programs, KPTI is represented at many Kiwanis family and community events each year where information is distributed, workshops are held or service projects are performed. Below is a partial list of places KPTI has been this year.

- New England Kiwanis Fall Trainer – North Conway, NH
- New England Key Club District Convention – Springfield, MA
- Floating Hospital Safety Fair – Boston, MA
- New England Circle K District Convention – Sebago, ME
- Moving Together Conference – Boston, MA
- New England District Kiwanis Mid-Year Con – Mansfield, MA

In addition to these events, thousands of pieces of safety information provided by the Institute were distributed through local Kiwanis clubs at events in their communities.

Also during the year KPTI staff advocated on behalf of an array legislation pending in the Massachusetts legislature to ensure the safety of children in the state.

We have also been actively involved with various coalitions geared towards pediatric safety including the Massachusetts Prevent Injury Now Network, Safe Kids Boston, Massachusetts Safety Officers League and the Partnership for Passenger Safety.

Research/Education at the KPTI during the past year.

Glycemic Variability in Pediatric Trauma Patients

Timothy Murtha, Walter J. Chwals, MD, Leslie Rideout, FNP, PhD(c)

Extensive research has made it clear that hyperglycemia and hypoglycemia are associated with poorer outcomes than patients that are maintained within the ideal average glucose range (90-110 mg/dL). The focus of our research was to investigate whether high variability in glucose levels are also correlated with morbidity and mortality in a population of pediatric trauma patients.

The study population were trauma patients admitted to the KPTI and cared for in the Floating Hospital's Pediatric Intensive Care Unit between February of 2000 and July of 2010. Overall, 605 patients were seen during this period. 218 patients met the research criteria and were included in the final dataset.

From the analysis, we are able to infer that by better controlling the variability in blood glucose, potential patient benefits include reducing the length of stay, decreasing post-hospital impairment, and reducing the number of PICU related mortalities. Timothy Murtha, 3rd year medical student at Tufts University School of Medicine, presented our research at the 44th conference for the Pacific Association of Pediatric Surgeons in Mexico in April, 2011.

KPTI Research Fellow- Dr. Andrew Benedict

Our research fellow, Andrew Benedict, MD, joined our KPTI team in the fall of 2010. He is participating in a research study with a group of researchers at Massachusetts General Hospital. Together, they are studying how motor neurons can be used to understand repair mechanisms in spinal cord injuries. He presented his research at the 42nd annual American Pediatric Surgical Association national meeting in May of this year. In a statement addressed to the Kiwanis Foundation of New England, Dr. Benedict wrote, "I want to thank you for your support in helping me study stem cell biology."

Advanced Trauma Life Support (ATLS)

KPTI joined the adult trauma program at the Floating Hospital/Tufts Medical Center in hosting the first *Advanced Trauma Life Support Course* (ATLS) at the hospital. **Advanced Trauma Life Support** (ATLS) is a training program for nurses, doctors and paramedics in the management of acute trauma cases, developed by the American College of Surgeons. The course is a 2 day learning experience encompassing lectures, hands-on experience, and written and oral examination for certification in ATLS. The program has been adopted worldwide in over 40 countries. Its goal is to teach a simplified and standardized approach to trauma patients. ATLS is now widely accepted as the standard of care for initial assessment and treatment in trauma centers. This course was well received by our physicians and surgeons. Plans are to host the ATLS course twice a year at the Floating Hospital/Tufts Medical Center.

Medical Treatment

The third component of KPTI's activities involves patient care. While KPTI does not directly fund the trauma-related units, the Institute often manages special programs and projects related to the care of injured children.

Through the dedicated pediatric emergency room at Tufts Medical Center Floating Hospital for Children approximately 150 trauma patients are treated each year. With the capabilities of a Level 1 Trauma Center, the hospital is able to treat pediatric trauma patients with any severity of injury. The KPTI has cared for many severely injured children this past year. The KPTI trauma team has had the wonderful fortune to see these children return to home and school, and in doing so, to recapture their childhood after enduring a traumatic injury. This is the heart of the work that the Kiwanis of New England and the KPTI trauma team strive for.

Other Projects

Hap Gerrish Kiwanis Pediatric Trauma Registry

This program, named for the Kiwanian instrumental in the foundation of KPTI, is a continuation of twenty-five years of commitment by New England Kiwanis to improving the care of injured children. This internet-based registry will be accessible worldwide by rural hospitals and pediatricians, researchers and anyone in need of information on how to care for pediatric trauma patients. The immediate beneficiaries of this project include:

- Physicians, Nurses and EMTs who will have immediate access to clinical information and a system of secure communication with peers.
- Trauma Data Registrars who submit trauma data used to implement injury prevention measures.
- Research Investigators who use the data to find better methods of treatment and prevention.
- Most importantly though, the **children** whose lives will be saved because those to whom their care is entrusted will have better access to critical information.

To learn about the latest updates on this project as well as information about other related projects happening nationwide, visit the public site of the Registry at www.hapskids.org.

Pediatric Emergency Management Card

This resource for physicians, nurses and EMTs who encounter a pediatric trauma has been completely revised in the past year. The card provides information on suggested dosage for popular pediatric trauma-related medications, information on ranges of vital signs, burn management and resuscitation equipment. They have been closely reviewed by a panel of physicians and pharmacists and are available for distribution to medical personnel across New England and Bermuda.

Kiwanis Pediatric Trauma Lecture Series

Each month a lecture is held covering a different topic related to pediatric trauma and injury prevention. Topics during the year included Orthopedic Injuries, Burn Injuries, Injury Prevention, and Nutritional Support for a pediatric trauma patient. Generally ten topics are covered in a year and are open to attendees from the hospital as well as the outside community. If you are interested in attending, please visit the Events page on www.kpti.org for the latest topic.

Bullying Education

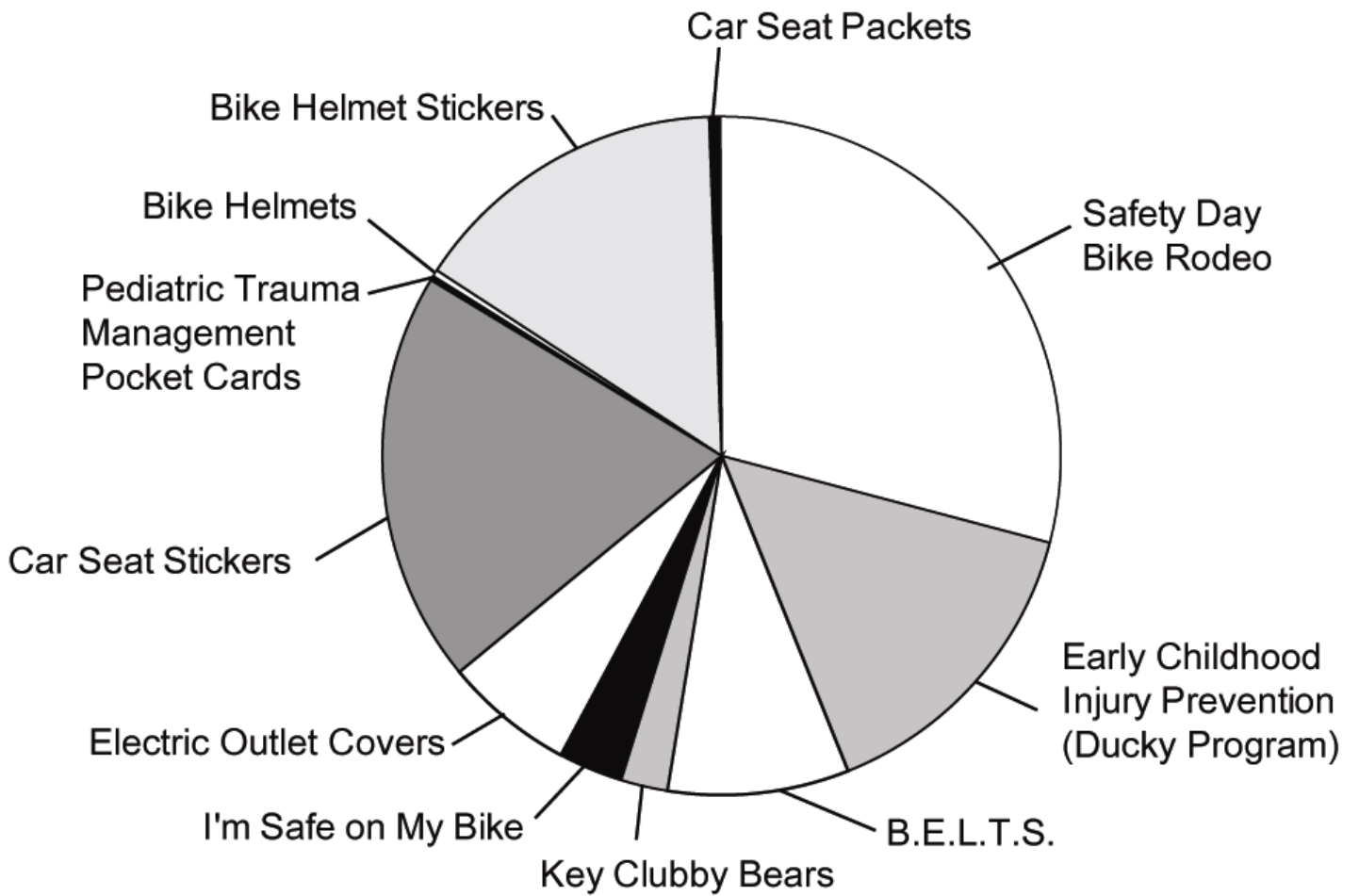
The Kiwanis Pediatric Trauma Institute partnered with the Pediatric Emergency Department to educate preteens about bullying. KPTI provided booklets (manufactured by the same distributors of the *I'm Safe on my Bike* series) that were distributed in the Pediatric Emergency Room. These booklets are also available for safety fairs and Kiwanis' programs.

The KPTI First Annual Safety Film Fest

This was the first year that KPTI held a film fest, promoting childhood safety. Although we had few entries, a group of four boys did win our contest. Next year, we hope to have more entries to promote KPTI.

KPTI Program Distribution

Distributed



Finances

10-11 Budget

Est. 11-12 Budget

Income

| | | |
|---------------------|-------------------|-------------------|
| KFNE | 153,620.58 | 206,181.27 |
| Boston Foundation | 70,346.67 | 82,547.36 |
| Grants (Misc) | 16,000.00 | 18,000.00 |
| Gifts | 6,000.00 | 12,000.00 |
| Research/Lab | 58,914.00 | 58,914.00 |
| Transfers | 0.00 | 0.00 |
| Other | 0.00 | 0.00 |
| Total Income | 304,881.25 | 377,642.63 |

Expenses

| | | |
|----------------------|-------------------|-------------------|
| Payroll | | |
| Administrative | 88,804.18 | 91,468.00 |
| Trauma Fellow | 53,914.32 | 55,000.00 |
| Director | 60,000.00 | 60,000.00 |
| Benefits | 25,568.41 | 27,000.00 |
| Total Payroll | 228,286.91 | 233,468.00 |

Operating

Programs:

| | | |
|------------------------|--------------------------|--------------------------|
| Bike Rodeo | 1,475.00 | 4,000.00 |
| Early Childhood | 25,500.00 | 26,000.00 |
| Key Clubby Bears | 13,000.00 | 16,327.25 |
| BELTS | 0.00 | 5,000.00 |
| I'm Safe | 371.25 | 5,000.00 |
| ED Car Seat | 5,500.00 | 6,665.00 |
| Trauma Staff Dev | 0.00 | 3,190.00 |
| Patient Support | 0.00 | 1,130.00 |
| Other | 365.50 | 3,000.00 |
| Conferences/Meetings: | | |
| Lecture Series | 1,331.95 | 2,400.00 |
| Trauma Dept. | 445.36 | 882.18 |
| Special Events | 7,800.00 | 8,800.00 |
| Conventions/Confs | 1,790.00 | 5,000.00 |
| Other | 210.00 | 1,300.00 |
| Outside Services | 2,935.65 | 5,000.00 |
| Printing/Copier | 5,301.35 | 6,500.00 |
| Use/Paper | | |
| Office Supplies | 2,391.89 | 3,300.00 |
| Shipping/Mailing | 2,897.79 | 4,000.00 |
| Public Relations | 0.00 | 2,200.00 |
| Equipment | 0.00 | 2,060.00 |
| Telecommunications | 278.60 | 320.20 |
| Miscellaneous | 0.00 | 2,100.00 |
| Total Operating | 71,594.34 | 114,174.63 |
| Research Lab | 5,000.00 | 30,000.00 |
| Total Expenses | <u>304,881.25</u> | <u>377,642.63</u> |
| Net Income | 0.00 | 0.00 |

Acknowledgements

The Kiwanis Pediatric Trauma Institute would not be possible without the continued support of many groups and individuals. Below is a listing of our major supporters.



Floating Hospital
for Children
at **Tufts** Medical Center

