

**Active Living Research: 2010 Translating Research to Policy Award**

**Award Recipients:**



***Deanna M. Hoelscher, PhD, RD, LD, CNS***

*Director, Michael & Susan Dell Center for Advancement of Healthy Living*

*Professor of Health Promotion/Behavioral Sciences*

*University of Texas School of Public Health Austin Regional Campus*

Dr. Deanna Hoelscher is Director of the Michael & Susan Dell Center for Advancement of Healthy Living and a Professor of Health Promotion/Behavioral Sciences at the Austin Regional Campus of the University of Texas School of Public Health (UTSPH) in Austin. Dr. Hoelscher received her BS in Food Science & Technology from Texas A & M University, her MA in Nutrition and PhD in Biological Sciences, both from the University of Texas at Austin, Texas, USA. She is also a Registered and Licensed Dietitian.

Her research interests include child and adolescent nutrition, school-based health promotion programs, dietary and physical activity assessment methodology, evaluation of child obesity policies, and dissemination of school health programs. Dr. Hoelscher has been principal investigator on many research projects with child and adolescent populations, most notably the Child and Adolescent Trial for Cardiovascular Health (CATCH), a study to decrease cardiovascular risk factors in children; the Incorporating More Physical Activity and Calcium in Teens (IMPACT) study, an osteoporosis prevention program for adolescent girls; and the School Physical Activity and Nutrition (SPAN) study, a child and adolescent overweight prevalence study in Texas. Dr. Hoelscher is currently Principal Investigator of the Dell CATCH Travis County elementary school project, the Texas Child Obesity Prevention Policy Evaluation (T-COPPE) project together with the Texas A & M School of Rural Public Health, and SPAN 2009-2010. She is also a PI on the Lunch in the Bag study, a project to improve lunches packed for daycare centers.

Dr. Hoelscher is Secretary of the International Society of Behavioral Nutrition and Physical Activity and is local coordinator for the 2012 annual ISBNPA conference, to be held in Austin, TX. Dr. Hoelscher was Chair of the Texas Council on Cardiovascular Disease and Stroke from 2003-2005, and Chair of the Research Dietary Practice Group of the American Dietetic Association from 2004-2005. She has previously served as the Public Health Nutrition Division chair of the Society for Nutrition Education, and was Program Chair of the Annual Meeting Planning Committee for the American Dietetic Association.



**Steven H. Kelder, PhD, MPH**

*Co-Director, Michael & Susan Dell Center for Advancement of Healthy Living  
Professor, Division of Epidemiology  
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Dr. Kelder has over 20 years' experience in design and evaluation of child and adolescent research, particularly interventions directed towards youth, schools, and parents. Recently, his emphasis is on interventions designed for promotion of physical activity and healthy eating, obesity prevention, and substance use prevention. He teaches graduate courses in Obesity and Public Health, Community Nutrition, Introduction to Epidemiology, Social and Behavioral Aspects to Behavior Change, Epidemiology of Child and Adolescent Health, and Epidemiology Proposal Development.

Dr. Kelder is one of the Principal Investigators of CATCH (Coordinated Approach To Child Health), a research-based program that guides elementary schools, families and children in the process of being healthy, reaching over a million Texas children [<http://www.sph.uth.tmc.edu/catch/>]. CATCH is a key element in an important public health effort – increasing physical activity, improving dietary intake, and ultimately preventing childhood obesity.

Dr. Kelder was a Research Fellow with the CDC working to develop the School Health Index [<http://apps.nccd.cdc.gov/shi/default.aspx>], a school self-assessment tool designed to assist schools to gauge their progress towards meeting the CDC school health guidelines for tobacco, physical activity, dietary intake, unintentional injury, asthma and violence. He has published over 100 articles in the professional scientific literature and has authored 9 textbook chapters.

***From NIH to Texas Schools:  
Policy Impact of the Coordinated Approach To Child Health (CATCH) Program in Texas***

### **The Problem**

The prevalence of overweight among children in Texas is higher than national estimates for the United States, especially among economically disadvantaged populations<sup>1</sup>. Schools are important venues for promotion of and participation in physical activity and healthy eating behaviors for children: However, until relatively recently, few states required daily physical education (PE) and school-based health promotion programs.

### **The Context**

CATCH (Coordinated Approach To Child Health) is a coordinated school health program targeting obesity prevention through the classroom, PE, child nutrition services, and family and home environment. CATCH originated through a National Heart, Lung and Blood Institute (NHLBI) grant as the “Child and Adolescent Trial for Cardiovascular Health”. The main CATCH trial<sup>2</sup> was among the largest school-based health promotion studies ever funded. Results from the main trial showed that CATCH schools engaged children in significantly more moderate to vigorous physical activity in PE classes, and students in CATCH schools reported spending more time in overall vigorous physical activity than students in the comparison schools. These effects were maintained three years post-intervention<sup>3</sup>.

### **Timeline for Translating Research to Policy**

The research base, results and dissemination efforts through state opinion leaders and program champions, as well as compatibility of CATCH with current legislative acts, led to adoption of CATCH by more than 2,300 elementary and middle schools in Texas. Early dissemination efforts were noticed by state legislators who had interest in health and school issues, which eventually resulted in state mandates for coordinated school health.

- After completion of the main research trial in 1994, the CATCH materials were compiled and assembled into a packet for dissemination. Initial efforts to disseminate the program were modest, largely because of lack of funding, no coordinated plan, and inadequate distribution methods. As part of this effort, training programs for implementation of CATCH were developed, along with assessment tools for schools to use.
- 1996: Staff from the Texas Department of Health (TDH) {now Texas Department of State Health Services or TDSHS}, while examining school-based programs for a diabetes prevention effort, learned about CATCH through the research papers and local presentations that detailed results from the CATCH main trial.
  - TDH began efforts to disseminate CATCH in Texas in 1996<sup>4</sup>.
- 1997: Several relatively large community-level funding opportunities were initiated at approximately the same time, including one in El Paso, Texas funded by the Paso del Norte (PDN) Health Foundation.
  - The community support and publicity efforts by the PDN Health Foundation brought attention to the program that attracted the interest of legislators.
- 1999: At the same time as the El Paso implementation of CATCH, promotion of physical activity in schools was supported by the Texas Coalition for Coordinated School Health and Physical Education, which consisted of organizations such as the Texas Medical Association, the Texas

Association of Health, Physical Education, Recreation and Dance, American Heart Association, and others.

- 1999: Texas State Board of Education approved CATCH as a diabetes education program for school districts to use for the health curriculum required under Texas Education Code Section 28.002.
- 1999: CATCH replication study conducted by independent researchers in El Paso, Texas, found that children enrolled in CATCH schools had a significantly lower prevalence of overweight and obesity compared to children in control schools<sup>5</sup> (publication released in 2005).
  - 2001: The Texas Coalition for Coordinated School Health and Physical Education, together with input from CATCH staff and investigators, worked to develop and support the provisions for Texas Senate Bill 19 (SB 19), which was passed by the 77<sup>th</sup> Texas legislature in 2001. The provisions of SB 19 included daily physical activity for elementary school students and implementation of an approved coordinated school health (CSH) program.
- From 2000-2006:
  - CATCH investigators at the University of Texas School of Public Health (UTSPH) (now at the Michael & Susan Dell Center for Advancement of Healthy Living at UTSPH) disseminated CATCH through training and provision of CATCH materials to public elementary schools in Texas, which facilitated the implementation of CSH programs as mandated by SB19, now Texas Education Code 38.013.
  - The School Physical Activity and Nutrition (SPAN) survey, a state-wide surveillance of obesity, physical activity, and diet in elementary, middle and high school students in Texas, was conducted in 2000-2002.
- 2002: Texas Education Agency (TEA) set criteria for health education programs to meet SB 19 provisions.
  - October 2002, CATCH became an approved TEA CSH program.
- 2003: Based on feedback from implementation of SB 19 and data from the SPAN survey, Senate Bill 1357 was passed, which strengthened the language and accountability for SB 19.
- 2005: Senate Bill 42 passed, which extended the requirement for a coordinated school health program to middle schools.
- 2006: Partnership for a Healthy Texas was formed to advocate for obesity prevention policies, including CSH.
- 2007: Senate Bill 530, passed in 2007, required Fitnessgram testing for students in grades 3 to 12, and clarified the middle school requirements for SB 42.
- 2009: Newly passed legislation expanded on the existing mandates. Of particular note are Senate Bills 283 - formalizing the structure and function of the School Health Advisory Committees, and Senate Bill 892 - requiring schools to include implementation of Coordinated School Health Programs in Campus Improvement Plans.

### Use of Research in Legislation Process

Initial effects of SB 19 were evaluated using data from the SPAN survey, which monitors child obesity and dietary and physical activity behaviors. Overall, the prevalence of child obesity in Texas among 4<sup>th</sup>, 8<sup>th</sup>, and 11<sup>th</sup> graders was not significantly different between 2000-2002 and 2004-2005; however, data from the El Paso region showed a statistically significant decrease<sup>6</sup>. These data are among the first to document a leveling off and decrease in the prevalence of child obesity in a regional area. These and other SPAN data were presented to the Texas Health and Human Services Committee, under the leadership of Senator Jane Nelson, as well as at various policy forums and conferences in Texas. Thus, data from SPAN and other funded projects from the Dell Center provided an evaluation of state-wide school health policy efforts, paving the way for further support of additional mandates.

*Subsequent legislative activity by the Texas legislature included strengthening and expanding the initial school health policies begun with SB 19, with significant school health mandates passed every legislative session since 2001.*

### Working toward Solutions

Several legislators have been active in seeking evidence-based programs to translate to general practice: most notable include Senator Jane Nelson (R, Flower Mound) and Texas Comptroller Susan Combs (R). Senator Nelson has drafted legislation and initiated interim reviews with input from SPAN survey data and on-going CATCH and related policy research<sup>7,8</sup>, funded by the Active Living Research (ALR), to expand the evidence for school-based health policy. ALR funded research documented a high level of compliance with many of the key requirements of SB19<sup>7,8</sup>, especially in the El Paso region<sup>7</sup>, corroborating evidence from SPAN population based surveys. In 2003, as Commissioner for the Texas Department of Agriculture, Comptroller Combs initiated a series of standards for foods served at schools. More recently in 2007, Comptroller Combs provided funding for implementation of SB 42 (PE and coordinated school health) in low-income middle schools; many of these schools used this money to purchase CATCH materials or PE equipment.

In addition to the leadership provided by legislators, stakeholder efforts have been crucial to implementation of CATCH. After SB 19 was passed, the Texas Coalition for Coordinated School Health and Physical Education was disbanded and another advocacy group, the Partnership for a Healthy Texas, was formed in 2006 (see <http://www.partnershipforahealthytexas.org/>). The Partnership, which includes over 40 organizations together with the Texas Health Institute, sets a legislative agenda for obesity prevention that is focused on evidence-based approaches, such as CATCH.

### Lessons Learned from the Texas Experience include the need for:

(1) scalable evidence based programs that have been approved by state government health and education agencies; (2) legislative champions who are effective in passing evidence-based child and health legislation; (3) stakeholder coalitions who provide a united agenda to increase political leverage versus fragmented and multiple stakeholders promoting similar, but disparate agendas; (4) statewide health-related monitoring to determine the ultimate success of the legislative agenda, as well as any unintended negative consequences; and (5) infrastructure, personnel and material resources to support school and community-based programs to prevent child obesity. Finally, relationships between researchers, stakeholders, practitioners, and key decision makers in schools and communities are crucial to support and sustain evidence-based policy and environmental change.

Barriers to implementation of daily PE and coordinated school health programs include: low priority compared to other academic requirements; insufficient funding; lack of district and state-level

accountability mechanisms; and lack of program champions at the school district level. These barriers notwithstanding, funding by state and regional foundations has been helpful in providing resources for schools to fully implement school-based legislation in Houston, Austin, and El Paso.

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