The School of Public Health

Annual Research Report

Calendar Year 2013

The mission of the School of Public Health is to improve the health of communities, with emphasis on rural and underserved populations, through education, research, service, outreach and creative partnerships.
Message from the Interim Dean

At the School of Public Health (SPH), our goal is to improve the health of communities through education, service, outreach and research. One of the strategies we employ is the development of creative partnerships to enhance our effectiveness in working toward that goal. Nowhere is the impact of those partnerships more evident than in our research activities.

This report presents an overview of the SPH research portfolio including a listing of our Board of Regents approved research centers, dedicated research programs, research projects, and publications. As highlighted in this report, SPH research endeavors and extramural funding are diverse, addressing a myriad of some of the most pressing public health issues such as prevention research to reduce health disparities in rural and underserved communities, public health and emergency preparedness and response, innovative methods to increase physical activity and combat obesity in children, interventions to promote healthy aging and decrease chronic diseases, development of novel approaches to cancer prevention and survivorship, health organization transformation through creative industry partnerships, the impact of water quality on pregnancy outcomes, asthma education, lifestyle interventions and diabetes, reduction in food insecurity, and tobacco use prevention and cessation.

Recognizing the importance of disseminating research findings, our faculty published over 120 full articles in calendar year 2013 in a wide range of public health journals and related disciplines. A full listing is included in this report. We would also like to recognize our students and former students who served as first authors or co-authors on many publications. We strongly believe that education and research go hand-in-hand, and the investment in training the next generation of public health researchers will lead to better health for populations across Texas, the United States, and the world.

James N. Burdine, DrPH, Interim Dean
School of Public Health
Texas A&M Health Science Center

Report prepared by Linnae Hutchison, MBA, MT, Assistant Director for Research, Scott Horel, MA, Program Coordinator, and Jean Brender, PhD, RN, Associate Dean for Research. For further information, please contact Linnae Hutchison at lhutchison@sph.tamhsc.edu.
RESEARCH EXPENDITURES BY FISCAL YEAR

Sponsored research, education, and outreach, as measured in annual extramural expenditures, decreased in CY2013 as a result of a variety of external and internal factors. The funding climate remains challenging with continuing budget reductions at the federal, state, and local levels. In addition to the increasingly competitive external funding environment, a number of internal factors are impacting the research expenditures. Most notably, a number of senior and well established investigators retired during the past year. At the same time, the school welcomed many new junior and mid-career faculty members to the team. This transition will impact research expenditures in the near future; however, the growing diversity in research expertise coupled with the pursuit of a variety of new funding streams promises many opportunities for future funding growth.

RECOGNITION

During Calendar Year 2013, the faculty and students received many research accolades; these are too numerous to include in this report. However, two events highlight the research efforts by students and the commitment of faculty advisors and mentors toward support of the student research experience during their tenure at SPH. These include the SPH Annual Award for Research Excellence and the Delta Omega Annual Research poster contest. Each year, during May commencement exercises, SPH selects one doctoral level and one masters level student to receive the Research Excellence Award. Dr. Kristin Miller was selected as the 2013 doctoral level award recipient. Mr. Ryan Hollingsworth received the masters level award.

Another activity that highlights the research activities at SPH is the selection of students for participation in the Delta Omega Sponsored Annual Research Poster contest held during the annual meeting of the American Public Health Association in Fall 2013. From across the United States, only 19 Public Health students were selected to present at the annual event; three of the 19 were from the Texas A&M School of Public Health. Invited to present were Jennifer Ross, Chinedum Ojinnaka, and Niel Dalal (pictured above from left to right: Associate Dean for Research, Jean Brender, Ph.D., Jennifer Ross, Chinedum Ojinnaka, Niel Dalal, and Interim Dean, James Burdine, Dr.P.H.).
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Board of Regents Approved Centers

**Center for Community Health Development (CCHD):** CDC funded Prevention Research Center (PI: Kenneth McLeroy, PhD, Regents & Distinguished Professor; Co-PI: James Burdine, DrPH; Director: Monica Wendel, DrPH)

**Center for Health Organization Transformation (CHOT):** NSF Industry/University Cooperative Research Centers Program (PI and Director: Larry Gamm, PhD, Regents Professor, Bita Kash, PhD*)

**Southwest Rural Health Research Center (SRHRC):** established with funding initially from the Federal Office of Rural Health Policy (Director: Jane Bolin, PhD, JD, RN)

**USA Center for Rural Public Health Preparedness (USA Center):** CDC funded Center for Public Health Preparedness (PI and Director: Barbara Quiram, PhD)

**The Ergonomics Center:** CDC and other externally supported Center (PI and Director: Mark Benden, PhD)

Programs

**Program on Healthy Aging:** (Director: Marcia Ory, PhD, MPH, Regents & Distinguished Professor)

**Program on Aging and Long-Term Care Policy:** (Director: Darcy McMaughan, PhD, Assistant Professor**)

**Program on Public Health and Water Research:** (Contact: Thomas McDonald, PhD)

**Program for Research and Outreach Engagement in Nutrition and Health Disparities:** (Director: Joseph Sharkey, PhD, MPH, RD)

**Program for Health Workforce Analysis & Policy:** (Director: Ciro Sumaya, M.D., MPHTM, Founding Dean)

**Program for Reproductive and Child Health:** (Director: Brandie Taylor, Ph.D., Assistant Professor***)

**Program on Public Health Policy Research:** (Interim Director: Jane Bolin, PhD, JD, RN)

**Program on GIS and Spatial Statistics:** (Director: Daikwon Han, PhD)

* Bita Kash, Ph.D. assumed the role of CHOT Director in April 2014; ** Catherine Hawes, PhD served as Director through August 2013;
*** Anne Sweeney PhD served as Director through August 2013; **** Eva Shipp, PhD served as Director August 2013-March 2014.

Key research areas

- Aging and health promotion
- Aging and disability
- Alcohol and drug abuse
- Border health
- Cancer prevention
- Community health development
- Community-based participatory research
- Chronic disease management
- Cost-effectiveness analysis
- Ergonomics
- Emergency medical preparedness and response
- Environmental exposures and birth defects
- Environmental health
- Falls Prevention
- Food security
- Health economics
- Health information systems
- Health services research
- Health systems research
- Health care associated infections
- Health care cost and quality
- Healthy aging
- Long-term care and aging policy
- Nutrition and obesity
- Occupational safety and health
- Prevention research
- Program evaluation
- Public health training
- Quality of life
- Reproductive health
- Rural disparities
- Rural health policy
- Rural emergency preparedness and response
- Veterans health
- Translational research
- Tobacco cessation and prevention
- Underserved and vulnerable populations
- Water quality

Selected research projects

- Center for Health Organization Transformation, NSF I/UCRC, PI: Gamm (Kash*)
- A Hospital Integrated Primary Care Provider (PCP) Network Model, Texas Children's Hospital, PI: Kash
- Central Texas Cancer Prevention and Control Research Network, CDC, PI: Ory
- Development of a Stand-Biased School Desk to Reduce Childhood Obesity, CDC, PI: Benden
- Enhanced Colorectal Cancer Screening, CPRIT, Co-PIs: McClellan/Bolin
- Education to Promote Improved Cancer Outcomes, CPRIT, PI: St. John
- Evaluation of Texas 1115 Medicaid Transformation Waiver, Texas Health and Human Services (TXHHSC), Co-PIs: Wells/Wendel
- Nitrates, Nitrites, and Nitrosatable Drugs and Birth Defects, NIH, PI: Brender
- Nursing Care Assessment Form Project, TXHHSC, PI: Phillips
- Prevention Research Center, CDC, PI: McLeroy
- Rural Lifestyle Intervention Treatment Effectiveness Trial (Rural LITE), NIH, PI: Radcliff
- Statewide Evaluation of Childhood Obesity Prevention Policies in Texas, Robert Wood Johnson Foundation, PI: Ory
- Texas Nutrition and Obesity Policy Research and Evaluation Network Collaborating Center, CDC, PI: Sharkey
- Texas Healthy Aging Research Network Collaborating Center, CDC, PI: Sharkey
- Training and Education Collaborative System Preparedness & Response Learning Center (TECS-PERLC), CDC, PI: Quiram
- Texas Asthma Control Program, DSHS, PI: Carrillo Zuniga
- Youth Tobacco Education Project, DSHS, PI: Colwell
ACTIVE GRANTS & CONTRACTS CY2013

Benden, Mark. Small Business Innovation Research Award (SBIR) PHASE II: Development of a Stand-Biased School Desk to Reduce Childhood Obesity, subaward from Positive Motion, LLC (prime is CDC), $421,669 (2013-2015) [ERGC].

Benden, Mark. Brazos Partnership for Childhood Obesity Research, NIH-Eunice Kennedy Shriver Institute of Child Health & Human Development, $402,875 (2012-2014) [ERGC].

Benden, Mark. American Council of Governmental Industrial Hygienist Hand Activity Level (ACGIH TLF-HAL) Study, ExxonMobil Upstream Research Company, $25,000 (2013-2014) [ERGC].

Bolín, Jane, Co-PI (McClellan, David, PI). Enhanced Colorectal Cancer Screening in a Family Medicine Residency Program Serving Low-Income & Underserved: Translating Research into Practice, Cancer Prevention & Research Institute of Texas (CPRIT), $2,748,008 (2011-2014) [SRHRC].


Bolín, Jane. Rural Healthy People 2020, (Prevention Research Center funded subproject), CDC, $85,724 (2011-2014) [CCHD] [SRHRC].


Breder, Jean. Mining Massive Geographically Referenced Environmental Health Data to Identify Risk Factors for Birth Defects, subaward from Texas State University (prime is EPA), $107,672 (2011-2014).

Carrillo Zuniga, Genny. Texas Asthma Control Project, Texas Department of State Health Services, $316,103 (2009-2014).


Carrillo Zuniga, Genny. Environmental Management Asthma Education to Improve the Quality of Life of Children with Asthma, subaward from Texas A&M Kingsville (prime is EPA), $10,504 (2012-2013).


Colwell, Brian. Youth Tobacco Education Project, Texas Department of State Health Services (DHS), $545,405 (2003-2014).

Dowdy, Diane. Texas Legislators Survey: A T-COPPE Collaborative Effort, University of Texas Health Science Center School of Public Health (prime is The Robert Wood Johnson Foundation), $18,000 (2012-2013).

Gamm, Larry. Center for Health Organization Transformation (CHOT), National Science Foundation UUCRC, $460,999 (2008-2014) [CHOT]. (Bita Kash assumed PI role in 2014.)

Gamm, Larry. Center for Health Organization Transformation, Various Memberships, $1,412,500 (2009-2014) [CHOT]. (Bita Kash assumed PI role in 2014.)


Gamm, Larry and Gregory, Sean. Leveraging a Studer Group Intervention for Continuous Innovation, Studer Group, $150,000 (2012-2014) [CHOT].


Hong, Yan. A Mobile Application to Promote Physical Activity and Access to Health Information among Seniors in Central and Rural Texas, National Network of Libraries of Medicine, $10,000 (2011-2013).

Jiang, Luohua. Indian Health Services Division of Diabetes Treatment and Prevention (DDTP) Demonstration Projects Coordinating Center, subaward from The University of Colorado Denver (prime is Indian Health Services), $76,692 (2011-2013).

Jiang, Luohua. Indian Health Services Division of Diabetes Treatment and Prevention (DDTP) Demonstration Projects Coordinating Center, renewal of subaward from University of Colorado Denver (prime is Indian Health Services), $272,051 (2013-2016).


Kash, Bita. A Hospital Integrated Primary Care Provider (PCP) Network Model, Texas Children’s Hospital, $150,000 (2013-2016) [CHOT].

Lillicbridge, Scott. Western Regional Center of Excellence for Biodefense and Emerging Infectious Diseases Administrative Core, subaward from The University of Texas Medical Branch Galveston (prime is NIH), $509,429 (2007-2014).

McDonald, Thomas. Border Environmental Health and Toxicology, ATSDR, $750,000 (2009-2013).


McLeroy, Kenneth. Prevention Research Center (PRC). Center for Community Health Development 5 year renewal, CDC, $7.7M (2009-2014) [CCHD].

McLeroy, Kenneth (Monica Wendel, Co-PI). Evaluation of minority youth tobacco education program, subaward from The American Legacy Foundation (prime is U.S. Department of Health and Human Services), $235,343 (2011-2014) [CCHD].


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Musculoskeletal Disorders
Influence of Workplace
Mehta, Ranjana.

Breast Feeding Support in
Millard, Ann.

Center San Antonio (prime is NIOSH],
The University of Texas Health Science
Schools
Millard, Ann.


Ohsfeldt, Robert.

Prevention Policy Evaluation (T-COPPE II):
is CPRIT), $232,440, (2011-2016).

Texas Southwestern Medical Center (prime
Cancer
Advanced Radiation Therapy of Lung
Inc., $129,000 (2012-2015).*

Ambassadors for Christ,
Program (PREP),

2014).*

The Robert Wood
Health Food Policies,
Implementation of TX SRTS and WIC
Statewide Evaluations of the
Texas Childhood Obesity

Ory, Marcia G.
Community Research Center
for Senior Health, subaward from Scott &
White Health System (prime is NIH/NIA, ARRA
funding), $129,077 (2010-2013).

Ory, Marcia G.
South. West & Central
Consortium-Geriatric Education Center of
Texas, subaward from The University of
Texas-San Antonio (prime is HRSA),
$150,000, (2010-2015).

Ory, Marcia G.
The Central Texas Cancer
Prevention and Control Research Network
(CTxCPRCN), CDC Special Interest Project,
$1,403,650 (2009-2014) [CCHD].

Ory, Marcia G.
Impact, Sustainability &
Scalability of Multi-component Falls Prevention
Programs, CDC Special Interest Project,
$1,174,608 (2011-2014) [CCHD].

Ory, Marcia G.
The Policies, Programs, and
Partners for Falls Prevention (PPPPFP), CDC
Special Interest Project, $799,982 (2012-2014)
[CCHD].

Ory, Marcia G.
Developing Partnerships for
Delivering Evidence-Based Self-Management
Programs, The Wellcare Foundation, $100,000
(2012-2013).

Ory, Marcia G. Texercise: Evaluating Its
Reach and Effectiveness, Texas Department
of Aging and Disability Services (TDADS),

Ory, Marcia G.
Increasing Reach and
Implementation of Evidence-Based Programs
for Cancer Control (PRO), subaward from
UTHSC Houston (prime is NIH/NCI), $27,000
(2010-2013).

Ory, Marcia G.
Dissemination of Fit & Strong in
the Brazos Valley, Brazos Valley Council of
Governments (BVCOG), $13,541 (2012-2013).

Ory, Marcia G.
Evidence Based Training and
Exercise Services to Seniors in the Brazos
Valley, St. Joseph Health System, $15,000
(2012-2013).

Ory, Marcia G.
Brazos Valley Area Agency on
Aging Evidence Based Programs for Seniors,
Brazos Valley Council of Governments Area
Agency on Aging, $37,000 (2013-2018).*

Pickens, Adam. Anti-Fatigue Mat Study, Let’s

Phillips, Charles D. Nursing Care
Assessment Form Project, Texas Health and
Human Services Commission (TXHHSC),
$927,278 (2010-2014).

Phillips, Charles D. Preventing/Managing
C.diff for Nursing Homes Residents,
Admissions, and Discharges, AHQR,
$1,378,315 (2010-2013).

Quiram, Barbara. Training & Education
Collaborative System - Preparedness and
Emergency Response Learning Center (TECS
PERLC), CDC, $2.2M (2010-2015) [USA].

Quiram, Barbara. Texas Public Health
Training Center, 5 year renewal, The
University of Texas Health Science Center
School of Public Health, subaward from
UTHSC Houston (prime is HRSA), $655,938

Quiram, Barbara. Region 6/SS Hazard Risk
Assessment, Texas Department of State
Health Services, $71,917 (2012-2013) [USA].

Quiram, Barbara. H-RAMP: Hazard Risk
Assessment and Mitigation Plans, Texas
Department of State Health Services (DSHS),
$492,581 (2012-2013) [USA].

Quiram, Barbara. Facility Preparedness
Response Survey, Texas Department of State
Health Services (DSHS), $532,353 (2013)
[USA].*

Radcliff, Tiffany and Côté, Murray. Rerouting
Non-Emergency Patients from the Emergency
Department (ED) to a Rural Health Clinic
(RHC) within East Texas Medical Center
Regional Health System (ETMC), ETMC,
$150,000, (2012-2014) [CHOT].

Radcliff, Tiffany. Rural Lifestyle Intervention
Treatment Effectiveness Trial (Rural LITE),
subaward from the University of Florida, (prime
is NIH) $33,841, (2010-2013).

Radcliff, Tiffany. Rural Lifestyle Eating and
Activity Program (Rural LEAP), subaward from
the University of Florida, (prime is NIH)
$33,841, (2013-2018).*

Radcliff, Tiffany. VEMEC IPA: VA Emergency
Management and Evaluation Center
Interagency Personnel Agreement, U.S.
Department of Veteran’s Affairs, $96,489

Rene, Antonio. University Affiliation for
Principles of Military Preventative Medicine
Program of Instruction, DOD-Army-U.S.
Medcom-center for Health Care Contracting,

Rene, Antonio. Renewal University Affiliation
for Principles of Military Preventative Medicine
Program of Instruction, DOD-Army-U.S.
Medcom-center for Health Care Contracting,
$693,393 (2013-2018).*

Sharkey, Joseph R. Texas Healthy Aging
Research Network (TxHAN), CDC Special
Interest Project, $380,000, (2009-2014)
[CCHD].

Sharkey, Joseph R. Texas Nutrition and
Obesity Policy Research and Evaluation
Network (TxNOPREN), CDC Special Interest
Project, $327,140 (2009-2013) [CCHD].

Sharkey, Joseph R. Texas Nutrition and
Obesity Policy Research and Evaluation
Network (TxNOPREN), CDC Special Interest
Project Renewal, $139,594 (2012-2014)
[CCHD].*
(Grants/contracts continued)

**Sharkey, Joseph R.** Prevention Research Center (Center PI: McLeroy) Core Research Project-Working with Rural and Underserved Communities to Promote a Healthy Food Environment: Mixed Methods Approach, CDC, $1,411,257 (2009-2014) [CCHD].

**Sharkey, Joseph R.** Understanding Very Low Food Security among Children of Mexican Origin: The Circumstances of Mexican Origin Families in Texas, University of Kentucky Center for Poverty Research (prime is USDA), $100,000 (2012-2014).


**Sharkey, Joseph R.** REACH: Building Healthier Progreso Colonias, Hidalgo Medical Services, $232,155 (2013-2014).*

**Sharkey, Joseph R.** Physical Activity of Mexican-Origin Mothers and Children in Forgotten Border Colonias: A Community-Based Participatory Approach to Understanding the Landscape, Baylor University, $15,650 (2013-2014).*

**Shipp, Eva.** ARRA: Community-Academic Linkages to Build a National Network of Farmworker Research, subaward from UTHSC Houston (prime is NIH), $37,519 (2012-2013).

**Shipp, Eva.** Neuromotor Function and Work Injury Risk among Hispanic Adolescent Farmworkers (a.k.a. The HIP Project). The Southwest Center for Agricultural Health Injury Prevention and Education at The University of Texas Health Center at Tyler (prime is NIOSH/CDC), $724,345 (2011-2016).

**St. John, Julie.** ÉPICO: Education to Promote Improved Cancer Outcomes, Cancer Prevention Research Institute of Texas (CPRIT), $487,589 (2011-2013) [CCHD].

**Sweeney, Anne.** Trisomy 18 Project, TAMHSC and SRPH, $45,370 (2011-2013).

**Wells, Rebecca and Wendel, Monica.** Evaluation of Texas 1115 Medicaid Transformation Waiver, Texas Health and Human Services Commission, $2,400,000 (2013-2017).*

**Wells, Rebecca** Treatment Access for Families: An Application of QCA and Regression Techniques, subaward from UCLA (prime is NIH/NIDA), $21,866 (2013-2014).*

**Wendel, Monica and Clark, Heather.** Evaluation of the Shellbrook Intervention, Aids Foundation of Houston, $120,178 (2011-2014) [CCHD].


**Wendel, Monica.** 2013 Central Texas HIV Client Needs Assessment, Brazos Valley Council of Governments (BVCOG), $35,000 (2011-2014) [CCHD].

Zhao, Hongwei. A Unified Approach of Cost-Effectiveness Analysis, subaward from University of California Davis (prime is NIH), $249,686 (2009-2013).

Projects Key:

* Denotes newly awarded in CY2013.

[] Denotes Center affiliated projects

[CCHD] = Center for Community Health Development

[CHOT] = Center for Health Organization Transformation

[ERGC] = The Ergonomics Center

[SRHRC] = Southwest Rural Health Research Center

[USA] = USA Center for Rural Public Health Preparedness
PUBLICATIONS CY2013*


(7) Benden M. Childhood Obesity, Are we doing all that we can to reverse the trend? SEEN 2013:15(1).


(Publications continued)


(54) Johnson CM, Sharkey JR, Dean WR, St John JA, Castillo M. Promotoras as research partners to engage health disparity communities. Journal of the Academy of Nutrition and Dietetics 2013 May;113(5):638-642.


(Publications continued)


(76) Nalty CC, Sharkey JR, Dean WR. School-based nutrition programs are associated with reduced child food insecurity over time among Mexican-origin mother-child dyads in Texas Border Colonias. Journal of Nutrition 2013 May;143(5):708-713.


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(94) Sainfort F, Kuntz KM, Gregory S, Butler M, Taylor BC, Kulasingam S, Kane RL. Adding decision models to systematic reviews: informing a framework for deciding when and how to do so. Value in Health 2013 Jan-Feb;16(1):133-139.


(100) Sharkey JR, Dean WR, Nalty CC, Xu J. Convenience stores are the key food environment influence on nutrients available from household food supplies in Texas Border Colonias. BMC Public Health 2013 Jan 17;13:45-2458-13-45.


(113) Tekwe CD, Bazer FW, Meinerjing CJ and Wu G. Use of interferon tau to reduce obesity in Zucker diabetic fatty rats. AMINO ACIDS: SPRINGER WIEN SACHSENPLATZ 4-6, PO BOX 98, A-1201 WIEN, AUSTRIA; 2013.

(114) Tekwe CD, Dabney AR and Carroll RJ. Application of Survival Analysis Methodology to the Quantitative Analysis of LC-MS Proteomics Data. AMINO ACIDS: SPRINGER WIEN SACHSENPLATZ 4-6, PO BOX 98, A-1201 WIEN, AUSTRIA; 2013.


(116) Trefyh JD, Dunton KH, Tocrine RP, Schonberg SV, McGague ND, Hersh ES, McDonald TJ. Chemical and biological assessment of two offshore drilling sites in the Alaskan Arctic. Marine Environmental Research 2013 May;86:35-45.


(122) Zuniga GC, Seol YH, Dadig B, Guion WK, Rice V. Progression in understanding and implementing the cultural and linguistic appropriate services standards: five-year follow-up at an academic center. Health Care Manager 2013 Apr-Jun;32(2):167-172.

Publications Key:
*BOLD denotes SPH faculty or staff. An asterisk (*) indicates an SPH student/ recent graduate. A double-asterisk (**) denotes a post-doctoral fellow. Listed publications were published in final form in calendar year 2013, and do not include published meeting abstracts.
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