At age 13, “George Powers” is in danger of becoming a statistic. Like other parents in their community, George’s parents want him to succeed in school. However, George and his family face many challenges: low income, high rates of unemployment, crime, and violence. Even more frightening: as an African American male, his likelihood of being murdered is three to 16 times higher than other groups of males. And if not a victim of homicide, he has a good chance of becoming the victim of some other physically violent act, including bullying. If he’s bullied, he’s likely to wind up a bully himself. However, George's outcome along with the rest of the participants of Lead Peace, may not be as bleak as perceived. In collaboration with the University of Minnesota (UMN), Minneapolis Public School District, and Village Hennepin County Social Services, Lead Peace is working to reduce the statistical odds against George. They want to find ways to help George and his classmates avoid becoming a negative statistic and rather be part of a family- and school-connected community.

Molly Secor-Turner, PhD, MS, has spent much of her life as a student. After obtaining a BS in nursing from the UMN and working as a labor and delivery nurse, she returned to her alma mater, receiving an MS in public health nursing and, most recently, her PhD in nursing from the UMN. The mother of two young children, Secor-Turner grew up in a middle-class white family in Fargo, North Dakota.

Despite starting out worlds apart, George and Secor-Turner made a connection that has positively impacted both their lives. Secor-Turner spent four years involved with the students at Nellie Stone Johnson K-8 school in north Minneapolis, a school involved in Lead Peace.

New ways of preventing youth violence
Lead Peace—a middle-school service learning program developed by the Minneapolis Public School District—represents one effort to design, implement and evaluate a program to prevent youth violence while simultaneously promoting academic success and supporting family connectedness and community pride/unity. The key strategy? Involving young people in service learning.

Two main ideas form the conceptual underpinnings of Lead Peace. One is that experts are increasingly defining violence as a public health problem, rather than solely viewing it as a crime issue. The good news here is they also see violence as preventable. The second is the resilience paradigm, a perspective that examines not only what goes wrong in kids’ lives, but

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Dear readers:

As we move into the 16th year of our Center, I reflect upon our growth, our reach, and what we hope has been our impact. Set forth in our first proposal to the Maternal and Child Bureau (MCHB), (HRSA, DHHS) that launched our Center, our goal was to educate nurses to work more effectively with adolescents. In turn, nurses in leadership roles in community, schools, nursing education, and public health agencies could have a ripple effect on improving the health of young people. Back in the early 90s, we never imagined that we would have our current complement of learners – 23 graduate students and post-graduate fellows from the disciplines of nursing, medicine, nutrition, psychology, and social work. Nor did we imagine nine adolescent-focused, doctorally-prepared faculty and senior research scientists working with students and fellows in the Center.

At this juncture, as we begin the next five years of support from MCHB for our Center, it is gratifying to hear from our graduates. Let me tell you about a couple of them.

Windy Solsvig, MS, RN, is in her third year of fulfillment of the aims we set out to achieve 15 years ago. They are two of 91 students supported by the Center for Adolescent Nursing who earned a graduate degree over the last 15 years. I am amazed at the diversity in which our graduates are using their education and experience. The impact they are having on adolescent health is far-reaching, ranging from reproductive health to mental health. Some are providing direct services in community-based clinics, others are working in school health settings, and still others are leading programs in public health agencies. Some are enrolled in PhD programs; others—seven at last count—have already earned their PhDs. Some have joined the faculty at universities in the global community, such as Japan and New Zealand. Others teach in nursing programs here in the Midwest.

Transitions are a part of growth. In this academic year, we are moving full speed into our new curricula offering a Doctor of Nursing Practice degree (DNP). As our current students complete their MS degrees and our next class heads toward the DNP, we continue to support our PhD students and post-doctoral fellows. All of these efforts keep us focused on achieving the goal set forth in 1993 – improving the health of adolescents by advancing the skills of nurses and other health professionals in meeting the health needs of young people.
New CAN Faculty

Clinical associate professor Debra Bernat, PhD, was awarded a three-year New Tobacco Investigator Award from Clearway Minnesota, a nonprofit organization focused on tobacco prevention. Dr. Bernat’s study will focus on the effects of Minnesota’s statewide clean indoor air law (effective 10/07) on young adult smoking behaviors and smoking norms across the state. As a member of the Center for Adolescent Nursing (2008), Dr. Bernat brings a new array of resources to the Center. Her research focuses on adolescent alcohol and tobacco use and prevention, public health policy, and evaluation research. She is also mentoring pre- and post-doctoral trainees and fellows supported by the CDC T01 Adolescent Health Protection Research Training grant.

Focusing on child and adolescent eating habits in relation to family mealtime and obesity prevention, Jayne Fulkerson, PhD, associate professor, is a welcomed addition to the Center for Adolescent Nursing. With her diverse array of research interests in child and adolescent health including weight-related issues, mental health, and instrument development, Fulkerson brings a new dimension of adolescent health to our Center, which she joined in 2008. As co-director of the Center for Children and Family Health Promotion Research, Fulkerson is currently working to prevent obesity and excess weight gain in youth through her Healthy Offerings via the Mealtime Environment (HOME) intervention. This intervention concentrates on increasing family meals and improving the quality of food (e.g., increasing fruit and vegetable consumption) in the homes of families with children. She will also be responsible for mentoring pre- and post-doctoral trainees and fellows on the CDC T01 Adolescent Health Protection Research Training grant.

Barb McMorris, PhD, is a senior research associate in the Center for Adolescent Nursing where she is a statistical consultant and research methodologist for a variety of research projects. She consults, mentors, and provides statistical assistance to the Center’s CDC T01 Adolescent Health Protection Research Training fellows. Prior to joining the Center for Adolescent Nursing in 2008, one of her proudest accomplishments was successfully fielding adaptations of the Communities That Care Student Survey to almost 6,000 students in grades five through ten in Washington State and Victoria, Australia as part of a NIDA-funded international collaboration to compare the development of youth substance use in the two countries. Her current research interests include adolescent development, life course models of risky health behavior, and the prevention of drug use, delinquency, violence, and teen pregnancy.

Clinical associate professor, Linda Olson-Keller, DNP, MS, RN, has worked extensively on the Public Health Intervention Wheel, making substantial contributions to the composition of the Wheel. Not only is she currently teaching undergraduate nursing students, she is also pouring herself into conducting a public health nursing policy partnership with the state of Minnesota. Through this partnership, Olson-Keller is attempting to follow all the public health nurses in Minnesota. This information will help to form more concrete evidence of the value, need, and range of public health nurses in Minnesota. Her current research receives funding from the Robert Wood Johnson Foundation, which is allowing her to conduct research on a public health nursing/population ratio for the 21st century. Working with and mentoring Center for Adolescent Nursing students, Olson-Keller has a wealth of public health nursing knowledge that students can access for their MS and DNP projects.
New Funding Supports Nursing Education in Adolescent Health

Preparing health care providers to deliver high quality services to adolescents has emerged as a new national priority, if recent awards by the Maternal and Child Health Bureau (MCHB) are any indication. Of the five Schools of Nursing that each received a $1 million 5-year grant from the MCHB, three will use their funding to enhance the capacity of nurses who work with adolescents. Read on to find out more about adolescent-focused programs at the University of Alabama-Birmingham, the University of California-San Francisco, and the Center for Adolescent Nursing at Minnesota’s School of Nursing.

University of Alabama at Birmingham

Program Title: “Building Capacity and Leadership in Child-Health Nursing”

Director: Anne Turner-Henson, DSN, RN

At the University of Alabama at Birmingham’s School of Nursing, Professor Anne Turner-Henson, DSN, RN, shares concern with colleagues around the country who worry about the shortage of nurse leaders in higher education. “The U.S. is facing a critical shortage of child-health nursing faculty, particularly those with the skills, knowledge, research and leadership abilities to prepare future providers and leaders in child-health nursing,” Turner-Henson says. “Coupled with that, the U.S. faces changing trends in children’s health, increasing rates of child-onset adult conditions and decreasing numbers of child and adolescent–health nursing providers.”

Turner-Henson’s new MCHB program aims to address this issue by preparing nursing faculty with skills to teach and conduct research focused on children and adolescents. Thus, the new federal dollars in Alabama’s School of Nursing will be directed toward the PhD program, with particular priority on research development and research translation. “The result,” Henson says, “will be a cadre of new child and adolescent nursing faculty with the capacity to teach, lead research, and advocate for the age-group they serve. Ultimately, we want to improve the health status of children, adolescents and families, particularly those in the southeast, by building capacity and leadership in child-health nursing faculty.”

In addition to launching at least five new full-time PhD students each year, the program will aim to retool and update faculty who are already PhD-prepared. Alabama will be offering CE programming that will include child and adolescent specialty courses and seminars, in two formats—online and face-to-face. The first CE offering in the new program? Obesity in childhood and adolescence—clearly, a critical issue in the 21st century.

The University of California, San Francisco

Program Title: “Nursing Leadership Education: Underserved Adolescents and Young Adults”

Director: Susan M. Kools, PhD, RN, FAAN

“Modeled after the program at the University of Minnesota, we have focused our new MCHB-funded program on the health needs of underserved adolescents and young adults.” Says Susan Kools, PhD, RN, FAAN, an associate professor in the Department of Family Health Care Nursing at the University of California, San Francisco (UCSF).

Like Turner-Henson, Kools will use the new federal support for leadership education for nurses who work with young people. The overall goal at UCSF is to train nurse leaders as clinicians, educators, and researchers to improve the physical and mental health of California’s ethnically diverse, underserved adolescents and young adults.

“We’ll target several levels of nurses.” Kools says. “We will be training graduate-level nurses focused full-time on adolescent coursework and we will be offering courses and seminars in adolescent health for those in related areas such as pediatric nurse practitioners, mental health nurses, and those in public health nursing.” Funding will target students underrepresented in some way, such as racial/ethnic
minorities and those who are living and working in medically underserved areas.

Like in Alabama, CE offerings will help retool those already in practice. The MCHB grant will also support the development of online courses that will have a much broader reach and can be accessed by a far greater array of learners.

With the diversity of the communities surrounding UCSF, clinical practica will help prepare nurses to address some of the existing health disparities among various adolescent groups. Concurrently, they will be learning to adapt care to meet the unique cultural needs of youth populations. Research opportunities will also aim toward creating health equity.

The UCSF School of Nursing will also be collaborating on an interdisciplinary conference with partners including the University of California-Berkeley School of Public Health. “We have a history of interprofessional collaboration,” Kools says, “but this grant provides an opportunity to extend our work together. We will coalesce a critical mass of people who are each doing amazing adolescent work.”

Kools is happy to see MCHB focusing more than ever on adolescent health. “This is really an important area, and it’s great to see MCHB channel some of its training dollars into adolescent grants,” she says. “I’ve never seen such an emphasis on adolescent health. This is an indication of its priority at the federal level.”

The University of Minnesota

Program Title: “Center for Adolescent Nursing”
Director: Linda Bearinger, PhD, MS, RN, FAAN

The Center for Adolescent Nursing, launched in 1993, aims to improve young people’s health by preparing nurses and other health professionals for lead roles in academic and public health settings. “Unfortunately, nursing education has not kept pace with the social nature of youth problems, the increasing diversity of roles of nurses, and the changing models for health service delivery,” says Center Director Linda Bearinger, PhD, MS, RN, FAAN.

The Center will use the new support from the MCHB to enhance nurses’ leadership capacity through graduate education, with continued emphasis on assuring a diverse student group. “In the past 15 years, over one in five of our graduates have been from an underrepresented racial/ethnic group,” says Bearinger. “We believe this success is due in large part to the focus of our faculty’s research.” Currently the Center for Adolescent Nursing is conducting community-based participatory research focused on interventions with young people from Latino and African American communities. Previous research sought answers about effective health promotion strategies for American Indian young people.

MCHB funding will also support outreach to health, education, and social service professionals who work with adolescents. In 2009, the Center, in collaboration with two other adolescent programs on campus and the Minnesota Departments of Education and Health, will sponsor its 14th annual four-day Summer Institute in Adolescent Health. With 66 participants, 11 young adult table teachers (see related article on page 7) paired with 11 health professional table teachers, nine faculty and community representatives on the planning committee, this annual event has a national, and sometimes even international, reach. Other services made possible by the MCHB grant include providing technical assistance to county and state health departments and creating and disseminating educational materials that support others who want to upgrade skills in adolescent health care at individual and population-levels.

“We’re extremely grateful for the support we’ve received from MCHB over the years,” Bearinger says. “We want to make sure that the investment will translate into ongoing educational resources and training for graduate students and our community partners who work with young people.”
Can you name a key ingredient for advancing the research stature of an academic program? Surprising as it might seem, it’s the quality of post-doctoral fellows. Recent studies reported in the Chronicle of Higher Education reaffirmed the value of post-doctoral programs in research-intensive institutions. The Center for Adolescent Nursing hopes to further validate these findings with the growth of a post-doctoral program focused in adolescent health. In 2004, with a major training grant from the Centers for Disease Control and Prevention, the Center for Adolescent Nursing made a significant investment in post-doctoral training in a much-needed area—the science behind how to protect the health of young people. We believe this investment is already paying dividends.

The numbers for the past three years add up like this:
- 12 post-doctoral fellows (plus 12 pre-doctoral students) with full-time support from the Center for Adolescent Nursing
- 5 lead faculty from the Schools of Nursing, Medicine, and Public Health
- 4 disciplines learning advanced research skills—nursing, medicine, nutrition, psychology
- 3 statisticians working one-on-one with the adolescent health post-doctoral fellows

To develop an interdisciplinary post-doctoral program housed in the School of Nursing (SoN), significant transformations occurred at the University of Minnesota. For the first time, an institutional training grant housed in the SoN supports physicians, some of whom have their post-doc appointments in the Medical School. Post-doctoral fellows with primary appointments in nursing hail from the disciplines of psychology and medicine. Regardless of the clinical practice experiences on their resumes, all fellows give priority to public health and population-focused prevention. And, across disciplines, they take courses and are mentored by faculty from any one of the collaborating Schools—Nursing, Medicine, and Public Health.

One post-doctoral fellow’s brief biography provides an example. Naomi Duke, MD, MPH, is a nursing post-doctoral fellow. She earned her medical degree from Harvard and her MPH from the School of Public Health, University of Minnesota. Following clinical work as a pediatrician and a couple of years in academic adolescent medicine, she sought a post-doctoral fellowship that would bolster her skills in public health research with a special emphasis on translating research into health policy. Since starting her post-doc fellowship in the School of Nursing and working under the tutelage of Renee Sieving, PhD, RN, Associate Professor in the Center for Adolescent Nursing, and Iris Borowsky, MD, PhD, Associate Professor in the Medical School, Dr. Duke has submitted three original manuscripts, mentored a master’s nursing student conducting a research project, and joined an NIH-funded research team testing a multi-pronged intervention with sexually at-risk girls in a host of clinical settings in the Twin Cities. Next semester? Two more manuscripts underway, the launch of a research grant proposal, more coursework in the School of Public Health, and a writing seminar in the Division of Adolescent Health and Medicine in the Medical School’s Department of Pediatrics.

The scholarly products of our post-doctoral fellows reveal another aspect of success in developing research skills in an interdisciplinary fashion. Since 2004, the 12 post-doctoral fellows have co-authored 62 articles in peer-reviewed journals. Some of the titles of these articles, first-authored by the fellows, demonstrate the range of issues under investigation:
- “From adolescent connections to social capital: Predictors of civic engagement in young adulthood” (Duke, et al., in Journal of Adolescent Health)
- “Assessing barriers and facilitators to achieving goals in overweight inner-city adolescents in a weight management program” (Alm, et al., in Diabetes Educator)
- “Perceptions of health among immigrant Latino adolescents from Mexico” (Garcia, et al., in Journal of Holistic Nursing)
- “College students’ psychological well-being during the transition to college: Examining individuation from parents” (Kenyon, et al., in Journal of Counseling Psychology)
- “Dieting advice from magazines—helpful or harmful? Five-year associations with weight-control behaviors and psychological outcomes in adolescents” (van den Berg, et al., in Pediatrics)

Today we cross, with greater ease, the boundaries that used to divide our Schools and our programs—all in the name of interdisciplinary research aimed at learning how to protect the health of young people. Interested in the possibility of a post-doctoral research fellowship? Please contact Linda H. Bearinger, Director, Center for Adolescent Nursing, at beari001@umn.edu.
Teens as Teachers at the University: Learning about Them, Learning from Them

Among the innovative teaching strategies that characterize our adolescent health curricula at the University of Minnesota is the way we involve young people to teach health professionals. Launched in 1995 by the UMN Center for Adolescent Nursing, the Adolescent Actors Teaching Program enlists young people (ages 15-20) with acting abilities to serve as simulated patients for teaching health providers how to effectively interview and assess health needs of this age group. In addition, we hire adolescents to serve as Young Adult Table Teachers (or YATTs) for each day of our annual summer institute.

This past summer, 11 YATTs participated in our annual institute, the theme of which was “Sexual Health for All Youth: Are We There Yet?” Throughout the institute, which took place July 28-30 at the Minnesota Department of Education in Roseville, MN, the YATTs participated in panels, round tables, and focus groups, and co-led table discussions and activities with institute participants. Their perspectives provided authentic insights into ways in which young people think and act in a variety of social settings. With our emphasis on the importance of engaging youth as well as understanding youth culture, the YATTs involvement throughout the institute was invaluable.

“We answered their questions truthfully,” says Frederick Huballa, a senior at Columbia Heights High School and a YATT at this year’s institute, “and I think they really appreciated that we were able to be mature about a subject like sexual health.” According to Renee Sieving, PhD, RN, associate professor in the School of Nursing, and lead institute faculty, “Involving YATTs in key roles as teachers intensifies the learning environment and gives perspectives on youth issues that are rare at professional meetings, even adolescent health meetings.

“Instead of everything being so theoretical, I think we made the summer institute more down to earth,” says Gaojoua Thao, a senior at Harding High School in Saint Paul, who has also participated in the Adolescent Actors Teaching Program, (AATP).

Adolescents recruited for their acting skills, particularly improvisation, teach weekly in our adolescent health on-campus training programs as well. Says Mae Sylvester, the AATP coordinator, “We employ adolescents and train them with clinical scenarios and characters, and then they provide opportunities for nurse practitioners, medical students, and residents, to roleplay clinical encounters with real adolescents.”

Late last year Thao heard about the adolescent actors program from one of her high school teachers and decided to apply. She thought it sounded like a unique and interesting opportunity. “I didn’t know if they had any Hmong participants, and I thought it would be a great way for future health care providers to learn to communicate with someone from a different culture,” she explains.

Thao typically acts as one of two characters in the roleplay situations. Sometimes, she plays the part of a Hmong teenager named Mai, who is losing weight and showing signs of depression. Other times she’s Avery, a soccer player who goes into the clinic for a sports physical and discovers she’s pregnant. “It’s so intense to tell a girl that she’s pregnant,” Thao says. “The medical residents and nurse practitioner students have to be really careful how they do it. It’s great if they show support for Avery, saying something like, ‘You look really distraught. It must be scary. Can we talk about how you’re feeling?’ or ‘Let’s get back together in a few days, after you’ve had time to think about it. Maybe you want to talk with someone you feel close to?’”

The adolescent actors represent a diversity of racial/ethnic (currently African American, American Indian, Hmong, Latina/o, and Somali), socioeconomic, and geographic (inner city, suburban, and rural) backgrounds. Over the years, these adolescent actors have assisted in the training of more than 500 residents, fellows, and graduate students and participants in our adolescent CE programs.

A special thanks to Mark Mahon and Sam Robertson for their contribution to this article.
also tries to understand what goes right: how is it that some young people succeed and why?

Applying this paradigm to intervention research, the question becomes: How can programs nurture protective factors in young people who live in highly challenging, stressful environments—and will these factors improve their lives? Members of racial/ethnic minorities and populations who have experienced oppression increasingly embrace this approach because of its emphasis on hope and potential.

**Lead Peace Program Components**

Into its 7th year, Lead Peace addresses critical risk and protective factors for youth violence identified by the resilience paradigm. Addressing violence involves building protective factors—life experiences that buffer against violence involvement. Protective factors include commitment to school, academic achievement, positive social and emotional skills, strong school and community connections, and involvement with adults and peers who value healthy lifestyles.

Lead Peace teaches goal-setting, team-building, leadership skills development, and nurturing supportive relationships within families, schools, and neighborhoods. Skills are taught in a hands-on way, through community service learning projects. For example, the middle-schoolers get to choose projects such as Kids Against Hunger (pictured above), mentoring younger children by reading to them or helping them with homework, and cleaning up their neighborhoods by collecting garbage. Other activities aim to build positive student and teacher connections with activities such as a teacher-appreciation lunch hosted by students and a celebration of students’ service learning accomplishments attended by teachers.

The program’s goals are straightforward—to lower rates of early substance use and involvement in violence, while also engaging middle school students in school, improving academic performance, and creating stronger connections with families and neighborhoods. Ultimately, these are the anticipated outcomes of being in service to others.

Nursing, research, and community involvement

Led by Associate Professor Renee Sieving, PhD, MS, faculty, students, and staff of the Center for Adolescent Nursing and the Medical School’s Healthy Youth Development–Prevention Research Center began collaborating with Minneapolis Public Schools with the goal of guiding the evaluation of Lead Peace. Secor-Turner first became involved as a health educator, later moving on to do survey research as part of the evaluation process.

“Being involved in Lead Peace provided grounding and a springboard for my dissertation,” says Secor-Turner. “The experience of having a research project that was integral to my dissertation, but was not my dissertation, was invaluable. Lead Peace is so unique in that it focuses on things like the neighborhoods of these young people, their peers and the influence they have on each other, their experiences and support from home and school, and their involvement in the community. All of this, plus seeing the commitment of parents supporting their kids, definitely peaked my interest in this work.”

A number of years before, Secor-Turner had formed a connection to low-income, African American young women through her work as a labor and delivery nurse at hospital in an inner-ring suburb of Minneapolis. It was a natural segue to become a health educator for Lead Peace. Once there she learned on the job, tweaking the program’s curriculum to adapt it to be suited to the community. But most important were the personal connections she made with the young people and their families.

“When it came time to recruit participants for my dissertation [on social messages about sex and pregnancy timing], Lead Peace gave me the opportunity to know how to respectfully engage with the community,” Secor-Turner recalls.

Lead Peace evaluators have done some number crunching with data provided by 118 students at the beginning of the study, when they were entering 6th grade. They were particularly interested in learning about the associations between violence and the presence of some of the protective factors in the lives of the young people. With young people finishing Lead Peace, now they are able to understand the benefits of service learning in relation to all the outcomes hoped for by those who developed the program.

**Next steps for George and Secor-Turner**

Although final outcomes won’t be known for a while, researchers have some qualitative data showing that kids give high marks to Lead Peace, according to Secor-Turner. “They like doing service projects that have a positive impact upon community and enjoy the support of parents, families, and other adults who celebrate their service efforts.”

For George, Lead Peace hopefully will translate into doing well academically—finishing high school and thinking about next steps after graduating—as well as avoiding substance abuse and violence while staying actively involved with his community.

For Secor-Turner, a PhD was definitely not the end of the line for her research career. She is currently a post-doctoral fellow in the Center for Adolescent Nursing, headed toward a faculty position with continued intervention work in community programs. Beyond her focus in Minneapolis, she hopes to be applying her experiences in an urban resource-poor community to addressing important health issues of young people living in developing countries.
New CAN Fellows and Students

Having an interest in adolescent sexuality and risk taking behaviors lead **Leah Atkinson, BSN**, to the master’s in public health program supported by the Center for Adolescent Nursing’s Maternal and Child Health Bureau grant. Earning her bachelor’s degree from Washington State University in nursing, Atkinson always knew she wanted to work with adolescents in a rural setting. Currently, Atkinson is employed at a rural school district in central Minnesota and, upon completion of the MPH program, looks forward to continuing work in a rural school setting.

Deciding that the definition of a good career is actually a career that one is passionate about, **Sara Harris, MPH** decided to re-evaluate her career and her true interests. After spending eight years in the field of finance and not obtaining the feeling of job fulfillment, Harris decided to focus on something different. knowing she had a passion for behavioral aspects of nutrition, Harris decided to start her journey toward a PhD in nutrition. In this program, Harris will focus on the role of stress and dietary behavior among adolescents.

Working with young, at-risk mothers and being an active voice in Colorado legislative politics, **Karen Johnson, BS, BA, RN**, decided it was time to do even more. Johnson, who is a pre-doctoral trainee on the CDC T01 Adolescent Health Protection Research Training grant, is pursing her PhD in nursing. Johnson has a strong interest in exploring and developing community and policy level interventions to promote healthy development among at-risk youth.

Body image, weight management, obesity and eating disorders are just a few of the interests, **Katie Loth, MPH, RD**, is focusing on during her pre-doctoral training. Loth, a trainee on the CDC T01 Adolescent Health Protection Research Training grant, will primarily focus her research on the prevention of eating disorders and obesity among adolescents. Having clinical experience working with clients of all ages focusing on weight management and eating disorder treatment, including completing the LEAH Fellowship at STAR Clinic, gives Loth the background and the drive to complete her PhD. She received her bachelor’s degree in Dietetics from the University of Wisconsin- Stevens Point and her master’s degree in Public Health Nutrition from the University of Minnesota, School of Public Health.

After working with adolescents in a variety of settings over the last 18 years, **Rose Raleigh, MS, RN**, has developed a wide variety of interests related to the many aspects of adolescent health. Raleigh’s first love is how adolescent spirituality is developed and grown through service learning projects. On a different note, adolescents’ dealing with end stages of life is another area that Raleigh is very passionate about. She states, “Further exploration/research needs to be conducted about adolescents and their personal decision making about end-of-life care and how we as health care professionals can support them.” Raleigh is currently teaching in the Associate Degree Nursing program at Century College and her quest for a PhD is being supported by the Center for Adolescent Nursing’s Maternal and Child Health Bureau grant.

Before **Molly Secor-Turner, PhD, MS, RN**, obtained her PhD, she worked in labor and delivery at a Minneapolis Hospital and was instantly drawn to pregnant adolescent girls. This led to a more in depth fascination associated with the social context of adolescent child bearing, especially for urban African American girls which in turn sparked Secor-Turner’s interest. After attaining her PhD, (dissertation titled, “Social Messages and Teen Sexual Health: Voices of Urban African American Youth”) Secor-Turner has secured a post-doctoral fellowship in the Center for Adolescent Nursing and is currently working with Dr. Renee Sieving on the Prime Time study, which focuses on safe ways to prevent unwanted teen pregnancies.
Center Faculty and Student Awards, Honors, and Updates

Daheia J. Barr-Anderson, PhD, a former post-doctoral fellow on the CDC funded T01 Adolescent Health Protection Research Training grant, was quoted in The Bradenton Times, Pittsburgh Post-Gazette, U.S. News & World Report, WebMD, United Press International, HealthDay News, and Reuters about her research which found that two-thirds of youth who had a television in their bedroom watched more TV, and had poorer diets and lower grades than kids without a TV in their room. She was interviewed on WCCO-radio, Minnesota Public Radio, Minnesota News Network, KARE 11, WCCO-TV, and KSTP News. Barr-Anderson’s study was also featured on Body Talk, a blog written by the health writers of the Minneapolis Star Tribune, and mentioned on the websites of The Washington Post, CBC in Canada, and CNN.

Center director Linda Bearinger, PhD, MS, FAAN, gave two plenary presentations at the three-day 6th Congreso Internacional Sobre la Salud del Adolescente, in Toluca, México. Held in October 2008 at the Universidad Autónoma del Estado de México, Bearinger spoke on “Global Perspectives on the Sexual and Reproductive Health of Adolescents” and “Translating Adolescent Development into Practice and Programs.” She also participated in a three-country panel on creating effective interventions with young people.

Clinical associate professor Debra Bernat, PhD, testified at the Minnesota Senate’s K-12 Education Committee on March 26, 2008. Dr. Bernat testified in support of comprehensive sexuality education, citing new data from a phone survey of 1600 Minnesota parents that she, and Drs. Bearinger, Eisenberg, and Resnick and others conducted last spring. Since this testimony and bill are a part of an omnibus bill, the outcome is still being worked on.

This past summer, Lynn Choromanski, MS, RN, and Center doctoral student, participated in an 8-week-long fellowship sponsored by the Office of Clinical and Translational Research through the Academic Health Center. Choromanski, analyzing a homecare data set, utilized a new data-mining program called WEKA. She also was chosen to present her research abstract at the Midwest Nursing Research Society Conference held in March 2008. Her poster, “Discovering Risk Factors and Interventions to Reduce Pressure Ulcers in Homecare Patients,” was selected for display in the student poster exchange and competition.

Recent PhD graduate, Terryann Clark, PhD, MPH, obtained a faculty position at the University of Auckland, New Zealand. Dr. Clark also recently received a Faculty Research Development grant from the University of Auckland, New Zealand. Dr. Clark will be using this grant to identify health needs and services for Maori youth in alternative educational settings.

Naomi Duke, MD, MPH, a post-doctoral fellow in the Center, received a Grant-in-Aid award from the Vikings Children’s Fund. This award will fund her research project titled “Constructing Culture: Defining the Self System of Impoverished African American Youth,” focusing on African American youth in Mobile, Alabama.

Jayne Fulkerson, PhD, RN, received an award from the University of Minnesota’s Obesity Consortium for her project: “Observational ratings of child feeding practices among preschoolers.” This study will focus on assessing child feeding practices currently used by parents of at-risk preschoolers and developing a methodology that can be used to eventually test which child feeding practices are most effective in preventing excess weight gain among children.

Clinical associate professor and former post-doctoral fellow, Carolyn Garcia, PhD, MPH, was selected as a clinical scholar by
UMN’s Building Interdisciplinary Research Career’s in Women’s Health (BIRCWH). Her research aims to demonstrate change in the way Latino adolescents react to stress. Garcia will be working with Drs. Renee Sieving and Wendy Hellerstedt, School of Nursing, along with Dr. Gerald August, Department of Psychiatry. Dr. Garcia also received funding for a pilot of a coping intervention developed for Latina adolescent females. This study will utilize a randomized controlled design to determine the potential social environmental effects of a coping intervention on school involvement and family connectedness of Latino adolescents. Additional work will be supported by a grant from the Medica Foundation for Garcia’s study, “Linking Latino Families to Mental Health Services Using a Community Health Worker Based Multi-Agency Collaborative Model: A Development and Feasibility Study.” This is a part of a larger P20 Center for Health Trajectories Research (PI: Jean Wyman).

Scott Harpin, MPH, MS, RN, a Center PhD student, was selected as a 2008 recipient of the President’s Student Leadership and Service Award. The President’s Student Leadership and Service Awards recognize the accomplishments and contributions made by outstanding student leaders at the University of Minnesota-Twin Cities.

Nicole Larson, PhD, RD, a graduate of the Center for Adolescent Nursing, was interviewed by WCCO-radio, Minnesota Public Radio, and WMNN-radio about her research study that found teens and young adults are eating fast food three or more times per week. The entire article can be found in the Journal of Adolescent Health, 43(1); 79-86. She was also awarded a student research award from the Society for Nutrition Education, for an abstract presented at the annual 2007 meeting, on influences on factors during adolescence that are related to fruit and vegetable intake in early young adulthood.

Lisa Martin, MS, RN, doctoral candidate in the Center for Adolescent Nursing, was recognized as a person who could provide great skills and relevance to the area of study involving indigenous people. She was included in the UN Database of Indigenous Professionals/Experts.

Elizabeth Saewyc, PhD, MS, RN, Director of the McCreary Centre, University of British Columbia and former Center faculty, received the Research Chair in Applied Public Health, funded by the Canadian Institutes of Health Research and the Public Health Agency of Canada. This five-year position, focuses on answering questions about the effects of policy changes and public health interventions using the BC Adolescent Health Surveys and other McCreary Centre Society datasets, such as the Street Youth Surveys, and Youth in Custody. One important strategy is the partnering of public health nurses from the five regional health authorities in BC with research staff and graduate students at the McCreary Centre to develop and conduct secondary analyses around youth health for their local evidence base.

Molly Secor-Turner, PhD, MS, RN, defended her PhD in nursing dissertation: “Social Messages and Teen Sexual Health: Voices of Urban African American Youth.” Dr. Renee Sieving was her primary advisor. Molly received her MS from the SoN and is currently a post-doctoral fellow in the Center for Adolescent Nursing. She also had a research abstract accepted for oral presentation at the 2008 Society for Adolescent Medicine Conference. Secor-Turner’s study is titled, “Associations Between Sexually Experienced Adolescents’ Sources of Information about Sex and Risky Sexual Behaviors.” This research study was compiled from data from the 2004 Minnesota Student Survey.

Kelly Stursa, MS, RN, a Center graduate, led a coalition-building project between all of the homeless teen shelters in the metropolitan area for her leadership practicum this past spring. Stursa collaborated with several shelters to implement educational opportunities for the youth. She currently lives in Buffalo, New York, and is in a public health nursing leadership role.

Sarah Stoddard, MS, RN, a pre-doctoral trainee on the CDC T01 Adolescent Health Protection Research Training grant, was selected as one of 12 North American PhD students to participate in the Society for Research on Adolescence (SRA) and the European Association of Research on Adolescence (EARA) Summer School program in Torino, Italy. Stoddard attended the week-long summer school which provided her with an opportunity to interact with 10 senior faculty members from North America and Europe with expertise in research on adolescence and adolescent development. During this intensive experience, both faculty members and students presented and discussed their research projects and interests.
CAN Faculty, Student, and Fellow Publications

Prevalence and utility of DSM-IV eating disorder diagnostic criteria among youth.
Diann M. Ackard, Jayne A. Fulkerson, Dianne Neurnark-Sztainer

OBJECTIVE: To examine the prevalence and utility of DSM-IV eating disorder (ED) criteria and anorexia (AN), bulimia (BN), and binge eating disorder (BED) among adolescents. METHODS: An ethnically diverse population-based sample of 4,726 public middle and high school students completed anthropometric measures and Project EAT survey items. RESULTS: Many youth endorsed body shape perception disturbance (41.5% female; 24.9% male), undue influence of body shape/weight on self-esteem (36.4% female; 23.9% male), and compensatory behavior (9.4% female; 13.5% male). Prevalence among females and males, respectively, was: AN 1/4 0.04%, 0%; BN 0.3%, 0.2%; BED 1/4 1.9%, 0.3%. Analyses of individual criteria showed high sensitivity and negative predictive values for each disorder and corresponding criteria, low specificity for several AN (27.8%) and BN (32.0%) criteria, and low positive predictive values (0.06–40.2%). CONCLUSION: Body disparagement and compensatory behaviors indicate eating disturbance, despite low prevalence of EDs. Diagnostic classification may be clinically useful, but is complicated for use in epidemiological populations. International Journal of Eating Disorders, 2007; 40(5), 409-417.

The Early Risers preventive intervention: Testing for 6-year outcomes and mediational processes.
Debra H. Bernat, Gerald J. August, Joel M. Hektner, Michael L. Bloomquist

We examined effects of the Early Risers “Skills for Success” early-age-targeted prevention program on serious conduct problems following five years of continuous intervention and one year of follow-up. We also examined if intervention effects on proximally-targeted variables found after three years mediated intervention effects on conduct problems found after six years. Participants included 151 at-risk children (106 males and 45 females) followed from first through sixth-grade, from 23 semi-rural schools in Minnesota. After 6 years, program children showed fewer oppositional defiant disorder (ODD) symptoms than control children. Program children did not significantly differ from controls on number of conduct disorder (CD) symptoms, DSM-IV diagnoses of ODD and CD, or drug use involvement. Results of the mediation analysis indicated that fewer ODD symptoms among program youth after six years were partially mediated by social skills and effective discipline. The study provides support for the early-starter model of conduct problems development that provides the framework for the Early Risers intervention. The study’s implications for prevention and limitations are discussed. Journal of Abnormal Child Psychology, (2007); 35(4), 605-617.

Associations between Health Screening Questions & Sexual Behaviors in Adolescent Girls: Identifying a Brief Question Format to Yield Critical Information.
Naomi N. Duke, Renee E. Sieving, Sandra L. Pettingell, Carol L. Sky

This study examines the ability of brief screening questions to identify adolescent girls at high risk for sexually transmitted infections and teen pregnancy. Participants included 103 sexually active 13-year-old to 17-year-old girls recruited from adolescent clinics who (1) were identified as at risk for negative sexual health outcomes through responses to an 8-item Health Screening Survey, and (2) returned to clinic within 2 weeks to complete a self-report survey about sexual risk behaviors and contraceptive use. Analyses examined relationships between girls’ total screening scores, individual screening survey items, and 5 self-reported sexual risk behaviors. Higher screening scores correlated with lower levels of refusing unprotected sex and less consistent condom use (p < .05 and p < .01, respectively). High-risk responses to 2 screening items were associated with all 5 sexual risk behaviors. Findings suggest useful questions in routine clinical screening of sexually active adolescent girls to identify those at high levels of sexual risk. Clinical Pediatrics, (2008); 47(6), 564-572.

Support for comprehensive sexuality education: Perspectives from parents of school-age youth.
Marla E. Eisenberg, Debra H. Bernat, Linda H. Bearinger, Michael D. Resnick

PURPOSE: Controversy about school-based sexuality education in public schools has continued over the past decade, despite mounting evidence that comprehensive sexuality education effectively promotes sexual health and that parents support these programs in public schools. The present study replicates and expands upon previous findings regarding public views on school-based sexuality education. METHODS: One thousand six hundred five parents of school-age children in Minnesota responded to telephone surveys in 2006–2007 (63% participation rate), including items regarding general sexuality education, 12 specific topics, the grade level at which each should be taught, and attitudes toward sexuality education. RESULTS: The large majority of parents supported teaching about both abstinence and contraception (comprehensive sexuality education [CSE]; 89.3%), and support was high across all demographic categories of parents. All specific sexuality education topics received majority support (63.4%–98.6%), even those often viewed as controversial. Parents believed most topics should first be taught during the middle school years. Parents held slightly more favorable views on the effectiveness of CSE compared to abstinence-only education, and these views were strongly associated with support for CSE (odds ratio [OR] CSE 14.3; OR abstinence-only =0.11). CONCLUSIONS: This study highlights a mismatch between parents’ expressed opinions and preferences, and actual sexuality education content as currently taught in the majority of public schools. In light of broad parental support for education that emphasizes multiple strategies for prevention of pregnancy and sexually transmitted infections (including abstinence), parents should be encouraged to express their opinions on sexuality education to teachers, administrators, and school boards regarding the importance of including a variety of topics and beginning instruction during middle school years or earlier. Journal of Adolescent Health, (2008); 42(4), 352-359.
Family meals and substance use: Is there a long-term protective association?
Marla E. Eisenberg, Dianne Neumark-Sztainer, Jayne A. Fulkerson, Mary Story

PURPOSE: To examine 5-year longitudinal associations between family meal patterns and subsequent substance use in adolescents.

METHODS: A total of 806 Minnesota adolescents were surveyed in public schools in 1998–1999 (mean age, 12.8 years) and again by mail in 2003–2004 (mean age, 17.2 years) as part of a longitudinal population-based study. Logistic regression was used to estimate the odds of tobacco, alcohol, and marijuana use at follow-up for adolescents reporting regular family meals at baseline compared with those without regular family meals, adjusting for family connectedness and prior substance use. RESULTS: Family meal frequency at baseline was associated with significantly lower odds of cigarette smoking, alcohol use, and marijuana use at follow-up among female adolescents, even after adjusting for baseline substance use and additional covariates. Family meals were not associated with use of any substance at follow-up for male adolescents after adjusting for baseline use. CONCLUSIONS: Results from this study suggest that regular family meals in adolescence may have a long-term protective association with the development of substance use over 5 years among females. Parents should be encouraged to establish a pattern of regular family meals, as this activity may have long lasting benefits.


Policy interventions and surveillance for tobacco prevention.
Jean L. Forster, Rachel Widome, Debra H. Bernat

Tobacco-policy interventions are designed to change the environment with the ultimate goal of preventing young people from beginning to smoke or reducing the likelihood that they will accelerate and solidify their smoking patterns. Several studies show that smoking bans in the home, at school, at work, and in the community are associated with less progression to smoking, less consolidation of experimental into regular smoking, and more quitting among adolescents and young adults. Randomized community trials and cohort studies support an association between enforcement of youth access laws against businesses and lower adolescent smoking rates. Several decades of studies provide evidence that increasing cigarette price through excise taxes reduces smoking among adolescents and young adults, who are particularly price-sensitive. Ongoing surveillance of tobacco-use behaviors in adolescents and young adults is essential for monitoring smoking patterns and evaluating tobacco policies.

American Journal of Preventive Medicine, (2007); 33(6S), S335-S339.

Relationships between alcohol-related informal social control, parental monitoring and adolescent problem behaviors among racially diverse urban youth.
Jayne A. Fulkerson, Keryn E. Pasch, Kelli Komro, Cheryl L. Perry

The purpose of the present study is to investigate the relationships between alcohol-related informal social control and parental monitoring on alcohol use, behavior and intentions; violent behavior; and delinquent behavior in a racially diverse population of young urban adolescents. Baseline surveys were administered to 6th grade male and female students in 61 urban Chicago schools as part of Project Northland Chicago, a group randomized trial for the prevention/reduction of substance use. A subset of their parents (n = 3,034) was also surveyed regarding alcohol use, violence, and delinquency and related issues. Structural equation modeling was used to assess relationships between alcohol-related informal social control (as measured by parental perceptions of neighborhood action regarding youth drinking) and parental monitoring (as reported by parents), and three adolescent outcomes (alcohol use, behaviors and intentions; violent behavior; and delinquent behavior; as reported by teens). Associations between alcohol-related informal social control and parental monitoring were positive and significant (P<.001). Direct paths from parental monitoring to all three adolescent outcomes were negative and statistically significant (alcohol use, behaviors and intentions, P<.001; violent behavior, P<.001; and delinquent behavior, P<.001). Alcohol-related informal social control was not significantly associated with adolescent outcomes. Efforts to engage parents to be more active in monitoring adolescents' activities may be related to lower levels of underage drinking, violence and delinquency among both female and male urban youth. Neighborhood norms and action against teenage drinking may be too distal to adolescent outcomes to be directly associated.


Family meals: Perceptions of the benefits and challenges among parents of 8-10 year old children.
Jayne A. Fulkerson, Mary Story, Dianne Neumark-Sztainer, Sarah Rydell

The study purpose was to examine parental perceptions of the mealtime environment in families with school-aged children and identify strategies to improve the dietary quality of meals. Cross-sectional surveys were completed by a convenience sample of 107 parents (86% mothers, 14% fathers) of 8- to 10-year-old children who were recruited from after school child care programs/elementary schools. SAS (version 9.1) was used to produce descriptive frequencies of parental reports of positive and negative perceptions of mealtime. Parents reported frequent family meals; however, they indicated that family dinners were eaten at full-service restaurants, purchased from fast-food establishments, or picked up as takeout foods at least weekly (47.0%, 28.3%, and 23.8%, respectively). Conflicts about food were problematic for some families (40.2% on at least some days), and appeared to be related to children’s food pickiness. Parents reported many benefits of family meals, including time for conversation, feelings of togetherness, shared nutrition, and ceremony. Areas where parents desired change included assistance with children’s food pickiness; new recipes and meal ideas; and decreasing conflict at mealtimes. Findings suggest that interventions to increase family meal frequency and promote healthful foods at mealtimes should address promoting food acceptance among children, sharing responsibilities among parents and children for meal planning and preparation, decreasing conflict at meals, and eating out healthfully.

Family and Racial Factors Associated with Suicide and Emotional Distress among Latino Students.
Carolyn M. Garcia, Carol L. Skay, Renee E. Sieving, Sandy Naughton, Linda H. Bearinger

BACKGROUND: Latino youth experience disproportionate rates of mental health problems including suicide and depression. Better understanding of underlying risk and protective factors on the part of school-based health professionals, teachers, and health care providers in their lives is warranted. The aims of this secondary analysis of 2004 Minnesota Student Survey data were to (1) describe the mental health status of a statewide sample of Latino 9th- and 12th-grade students; (2) explore relationships of family protective factors (communication, caring, and connection) with suicidal ideation, suicidal attempts, and emotional distress; and (3) highlight similarities and differences in family protective factors among subgroups of Latino students.

METHODS: Parallel analyses were completed for Latino-only and Latino-mixed students. Bivariate logistic regression models were used to examine associations between each family variable and each study outcome. RESULTS: Nearly 1 in 5 Latino high school students have had suicidal thoughts in the past year; past year suicide attempts ranged from 6% to 18.5% across grade and gender subgroups. Most concerning are ninth-grade Latino girls, a group in which 30-40% reported suicidal thoughts and 14-19% reported attempting suicide in the past year.

CONCLUSIONS: An important study finding is the high rate of suicidal ideation, suicide attempts, and emotional distress among students who self-identified as being of mixed ethnicity. Study findings can be used to inform mental health promotion initiatives and culturally tailor interventions with Latino students.

Journal of School Health, (2008); 78(9), 487-495.

Using community-based participatory research to develop a bilingual mental health survey for Latinos.
Carolyn M. Garcia, Lauren Gilchrist, Centro Campesino, Nancy Raymond, Sandy Naughton, Janeth Patino

BACKGROUND: Despite rapid growth, Latino communities’ mental health needs are unmet by existing services and research. Barriers may vary by geographic locations, but often include language, insurance coverage, immigration status, cultural beliefs, and lack of services.

OBJECTIVES: The aim of this research was development of a cross-sectional instrument to assess the mental health status, beliefs, and knowledge of resources among rural and urban Latinos residing in a Midwestern state. METHODS: The purpose of this article is to describe the community-based participatory research (CBPR) process of instrument development and lessons learned. RESULTS: A culturally relevant, 100-item bilingual survey instrument was developed by community and academic partners. LESSONS LEARNED: Community-based participatory research methods are salient for sensitive health topics and varied research objectives, including instrument development. To ensure cultural and social relevance of research, community participation is crucial at all stages of research, including developing the research question and instrument.

Progress in Community Health Partnerships: Research, Education and Action Journal, (2008); 2(2), 105-120.

Black, Hispanic, and White girls’ perceptions of environmental and social support and enjoyment of physical activity.
Mira Grieser, Dianne Neumark-Stzainer, Brit I. Saksvig, Jung-Sun Lee, Gwen Felton, Martha Y. Kubik

BACKGROUND: This study examines the differences among black, Hispanic, and white adolescent girls in their perceptions surrounding physical activity (PA), including support within the school climate, friend and family social support, and personal enjoyment. METHODS: Participants included 1466 sixth-grade girls from 36 middle schools across the United States. Participants were 20% black, 21% Hispanic, 47% white, and 12% of other or mixed races. Multivariate analyses were performed on each scale, adjusting for body mass index and race and reduced-price lunch status. RESULTS: Results showed racial differences on several variables. Black girls, compared with white girls, perceived significantly lower PA enjoyment (p = .001) and teacher support for PA (p = .004). Hispanic girls experienced less PA enjoyment (p = .003) and perceived less support for PA from friends (p = .001) and their families (p = .008) than white girls. Black girls reported significantly higher levels of physical education (PE) enjoyment than did white girls (p = .003).

CONCLUSIONS: Differences in perceived PA support and enjoyment across race raise questions about why these differences exist and how best to address disparities within interventions.


Rates of adolescent antisocial behavior, school suspensions and arrests in Victoria, Australia relative to Washington State, USA.
Sheryl A. Hemphill, Barbara J. McMorris, John W. Toubourou, Todd Herrenkohl, Jackie Clements, Megan Mathers, Richard F. Catalano

BACKGROUND: Few methodologically rigorous international comparisons of student-reported antisocial behavior have been conducted. This paper examines whether there are differences in the frequency of both antisocial behavior and societal responses to antisocial behavior in Victoria, Australia and Washington State, United States. These 2 states were chosen due to their similarities on sociodemographic characteristics and their differences in policy frameworks around problem behavior including antisocial behavior and substance use. METHODS: State representative samples of students (N = 67652) in school grades 5, 7, and 9 in Victoria and Washington State completed a modified version of the Communities That Care self-report survey of behavior and societal responses to behavior. Chi-square analyses compared frequencies of antisocial behavior, school suspensions, and police arrests in the 2 states. Multivariate logistic regression analyses were conducted for each outcome measure to examine the effect of state, controlling for sample design, clustering of students within schools, age, socioeconomic status, and urbanicity. RESULTS: Few state differences in student-reported antisocial behavior were found, although frequencies varied across behavior type and grade level. Differences in societal responses were observed across grade levels with grade 5 Washington students reporting higher rates of school suspension. Older Washington students reported more arrests. CONCLUSIONS: Rates of student antisocial behavior appear similar in these 2 states in Australia and the United States. However, youth in the United States relative to...
Developing school-based BMI screening and parent notification programs: Findings from focus groups with parents of elementary school students.

Martha Y. Kubik, Mary Story, Gayle Rieland

School-based body mass index (BMI) screening and parent notification programs have been advanced as an obesity prevention strategy. However, little is known about how to develop and implement programs. This qualitative study explored the opinions and beliefs of parents of elementary school students concerning school-based BMI screening programs, notification methods, message content, and health information needs related to promoting healthy weight for school-aged children. Ten focus groups were conducted with 71 participants. Parents were generally supportive of school-based BMI screening. However, they wanted assurance that student privacy and respect would be maintained during measurement and that BMI results would be provided to parents in a neutral manner that avoided weight labeling. They also believed that aggregate results should be disseminated to the larger school community to support healthy change in the nutrition and physical activity environments of schools. Implications for practitioners and researchers are discussed.

Obesity prevention in schools: Current role and future practice of school nurses.

Martha Y. Kubik, Mary Story, Cynthia Davey

OBJECTIVE: To determine responsibilities of school nurses in delivering obesity prevention services, assess opinions and beliefs about school based obesity prevention and determine factors associated with school nurses supporting and providing obesity prevention services. METHOD: In fall 2005, a self-administered survey was mailed to 275 school nurses in Minnesota; 221 were returned (response rate=80%). RESULTS: Most (76%) school nurses supported the use of school health services (SHS) for obesity prevention. The likelihood of nurses supporting SHS for obesity prevention (p=0.009), as well as performing more child- (p=0.016) and school-level (p=0.001) obesity prevention tasks increased as perceived support for school-based obesity prevention from health care providers and school administrators, teachers and foodservice staff increased. Nurses supportive of school-based height, weight and BMI screening and parent notification were twice as likely to perform child level obesity prevention tasks (p=0.021) and more than three times as likely to support using SHS for obesity prevention (p=0.005). CONCLUSION: Our study suggests considerable support among school nurses for school-based obesity prevention efforts and a growing interest in providing primary and secondary preventive care services in the school setting. Study findings also speak to the need for preparation, time and support from the school and health provider community.

Pediatric nurse educator shortage: Implications for the nursing care of children.

Barbara J. Leonard, Jayne A. Fulkerson, Diane Rose, Andrea Christy

Maternal and child health (MCH) nurses are vital to caring for the nation’s infants, children, and adolescents. A shortage of pediatric nursing educators has important consequences for the preparation of the next generation of MCH nurses. A Web-based survey of administrators and pediatric nursing faculty from U.S. schools of nursing with baccalaureate and advanced degree programs was conducted to assess perceptions of a pediatric nursing faculty shortage, and implications and solutions to such a shortage. Deans (n = 191) and pediatric faculty (n = 237) from schools of nursing responded to the survey. Institutions are representative of the 660 schools of nursing across the United States. Fifty percent of deans and 70% of pediatric nursing faculty members reported a shortage of pediatric nursing faculty. Large, public institutions (total school student enrollment over 15,000) expressed the most concern. The educational impact of the reported shortage included increased faculty workload, difficulty getting appropriate clinical practice settings, elimination of acute care...
clinical experiences, and reduction in pediatric content in curricula. Expected retirements of the current workforce (76% were over 45 years of age) without an increase in replacements will deepen the shortage in the coming decade. Pediatric faculty members focused on the need for competitive salaries (particularly compared to clinical salaries) and active mentoring programs as important factors in recruitment and retention of new faculty. Recommendations for stemming the decline in availability of pediatric nursing faculty are provided. *Journal of Professional Nursing,* (2008); 24(3), 184-91.

Coffee and caffeine intake and the risk of ovarian cancer: The Iowa Women’s Health Study.
Natalie Lueth, Kristin E. Anderson, Lisa J. Harnack, Jayne A. Fulkerson, Kim Robien

Laboratory data suggest that caffeine or some components of coffee may cause DNA mutations and inhibit tumor suppressor mechanisms, leading to neoplastic growth. However, coffee consumption has not been clearly implicated in the etiology of human postmenopausal ovarian cancer. This study evaluated the relationship of coffee and caffeine intake with risk of epithelial ovarian cancer in a prospective cohort study of 29,060 postmenopausal women. The participants completed a mailed questionnaire that assessed diet and health history and were followed for ovarian cancer incidence from 1986 to 2004. Age-adjusted and multivariate-adjusted hazard ratios were calculated for four exposure variables: caffeinated coffee, decaffeinated coffee, total coffee, and total caffeine to assess whether or not coffee or caffeine influences the risk of ovarian cancer. An increased risk was observed in the multivariate model for women who reported drinking five or more cups/day of caffeinated coffee compared to women who reported drinking none (HR = 1.81, 95% CI: 1.10–2.95). Decaffeinated coffee, total coffee, and caffeine were not statistically significantly associated with ovarian cancer incidence. Our results suggest that a component of coffee other than caffeine, or in combination with caffeine, may be associated with increased risk of ovarian cancer in postmenopausal women who drink five or more cups of coffee a day. *Cancer, Causes & Control,* (2008).

Theoretical and technical considerations of the utilization of group in scientific inquiry.
Denize Munari, Elizabeth Esperidiao, Marcelo Medeiros, Carolyn Garcia

The use of group as a data collection strategy in research has several advantages. The concept is not complex; however, utilization requires careful implementation because group situations can generate uncertain events or outcomes. Understanding how a group data collection method works is a necessary precursor to successful use, especially for researchers who may lack experience in coordinating human groups. In this article theoretical and practical considerations of the use of the group as a research data collection method are presented based on literature review and authors’ experience. We present group dynamic principles, advantages, disadvantages, and practical insights for development, implementation, and data analysis of the scientific inquiry. Using this technique demands researcher knowledge and the ability to guarantee, through careful implementation, data quality and trustworthiness. Uninformed use of a group method may result in obtaining data that are not optimally useful and worse, may compromise the study’s value. *UERJ Nursing Journal,* (2008); 16(1).

Do family meals protect adolescents from disordered eating behaviors?
Dianne Neumark-Sztainer, Marla E. Eisenberg, Jayne A. Fulkerson, Mary Story, Nicole I. Larson

OBJECTIVE: To examine 5-year longitudinal associations between family meal frequency and disordered eating behaviors in adolescents. Design: Longitudinal study. Setting: Participants from 31 Minnesota schools completed in-class assessments in 1999 (time 1) and mailed surveys in 2004 (time 2). Participants: Adolescents (N=2516) who completed Project EAT (Eating Among Teens)–I (time 1) and –II (time 2) assessments. MAIN OUTCOME MEASURES: Time 1 family meal frequency and time 2 disordered eating behaviors, including extreme weight control behaviors (self-induced vomiting and use of laxatives, diet pills, or diuretics), less extreme unhealthy weight control behaviors (eating very little, fasting, using food substitutes, skipping meals, or smoking), binge eating, and chronic dieting. RESULTS: Among adolescent girls, time 1 regular family meals (5 meals/wk) were associated with lower prevalences of time 2 extreme weight control behaviors (odds ratio, 0.71; 95% confidence interval, 0.52–0.97), even after adjusting for sociodemographic characteristics, body mass index, family connectedness, parental encouragement to diet, and extreme weight control behaviors at time 1. Associations with other disordered eating behaviors were also suggestive of a protective effect of family meals in unadjusted analyses but were not statistically significant in adjusted analyses. Among adolescent boys, regular family meals did not predict lower levels of disordered eating behaviors. CONCLUSIONS: The high prevalence of disordered eating behaviors among adolescent girls and the protective role of family meals suggest a need for interventions aimed at promoting family meals. Further exploration of predictors of disordered eating behaviors in adolescent boys and the role of family meals is warranted. *Archives of Pediatrics and Adolescent Medicine,* (2008); 162(1), 17-22.

Protecting urban Indian young people from suicide.
Sandra L. Pettingell, Linda H. Bearinger, Carol L. Skay, Michael D. Resnick, Sandy Potthoff, John Eichorn

OBJECTIVE: To examine the likelihood of a past suicide attempt for urban American Indian boys and girls, given salient risk and protective factors. METHODS: Survey data from 569 urban American Indian, ages 9–15, in-school youths. Logistic regression determined probabilities of past suicide attempts. RESULTS: For girls, suicidal histories were associated with substance use (risk) and positive mood (protective); probabilities ranged from 6.0% to 57.0%. For boys, probabilities for models with violence perpetration (risk), parent prosocial behavior norms (protective), and positive mood (protective) ranged from 1.0% to 38.0%. CONCLUSIONS: Highlights the value of assessing both risk and protective factors for suicidal vulnerability and prioritizing prevention strategies. *American Journal Health Behavior,* (2008); 32(5), 465-476.
Suicidal ideation and attempts among adolescents in North American school-based surveys: Are bisexual youth at increasing risk?
Elizabeth M. Saewyc, Carol L. Skay, Patricia Hynds, Sandra L. Pettingell, Linda H. Bearinger, Michael D. Resnick, Elizabeth Reis

This study explored the prevalence, disparity, and cohort trends in suicidality among bisexual teens vs. heterosexual and gay/lesbian peers in 9 population-based high school surveys in Canada and the U.S. Multivariate logistic regressions were used to calculate age-adjusted odds ratios separately by gender; 95% confidence intervals tested cohort trends where surveys were repeated over multiple years. Results showed remarkable consistency: bisexual youth reported higher odds of recent suicidal ideation and attempts vs. heterosexual peers, with increasing odds in most surveys over the past decade. Results compared to gay and lesbian peers were mixed, with varying gender differences in prevalence and disparity trends in the different regions. *Journal of LGBT Health Research, (2007); 3(2), 25-36.*

Is school-based height and weight screening of elementary students private and reliable?
Sarah A. Stoddard, Martha Y. Kubik, Carol L. Skay

The Institute of Medicine recommends school-based body mass index (BMI) screening as an obesity prevention strategy. While school nurses have provided height/weight screening for years, little has been published describing measurement reliability or process. This study evaluated the reliability of height/weight measures collected by school nurses and the privacy of the measurement process. Interrater reliability for height/weight measures was computed on 70 elementary students, comparing measurements collected by a trained researcher to those collected by 7 school nurses. Students arrived in small groups to private measurement spaces. Height agreement was 80% for younger and 85% for older students. Agreement for weight was 97% and 100%, respectively. Reliability for weight was very good. Reliability for height was good, but results suggest careful attention to the collection process is required. Nurses may benefit from regular training on measurement procedures. The results of this study suggest that school nurses provide BMI screening that is private and reliable. *Journal of School Nursing, (2008); 24(1), 43-48.*

Effect of parent and family characteristics on treatment outcomes of anxious children.
Andrea Victor, Debra H. Bernat, Gail A. Bernstein, Ann E. Layne

This study examines relations between family functioning, parenting stress, parental psychopathology, and treatment outcome. Participants included 61 children (ages 7–11 years) with features or diagnoses of separation anxiety disorder, generalized anxiety disorder, and/or social phobia. Treatment conditions included group cognitive behavioral therapy (CBT) and no-treatment control. Higher family cohesion at baseline was associated with significantly greater decreases in child anxiety at post treatment for participants who received CBT, while no association was found for the no-treatment control participants. Parenting stress and parental psychopathology were not associated with treatment outcome for either condition. Post hoc analyses examining relations between family cohesion, parenting stress, and parental psychopathology showed that parents from families low in cohesion reported significantly higher levels of parenting stress and psychopathology compared to parents from families high in cohesion. These results will facilitate development and implementation of effective interventions with anxious children. *Journal of Anxiety Disorders, (2007); 21(6), 835-848.*
Adolescent Health Services: Missing Opportunities

Adolescence is a time of major transitions and rapid changes, when young people develop many habits, patterns of behavior, and relationships that affect not only the functioning and opportunities of adolescents themselves, but also the future quality of their adult lives. Nearly 42 million adolescents aged 10-19 reside in the United States, most of whom are healthy. But all too frequently, young people engage in risky behavior, develop unhealthy habits, or have chronic conditions that can jeopardize their immediate health and safety and contribute to poor health in future years. The three leading causes of death in adolescents—motor vehicle crashes, homicide, and suicide—are all tied to risky or unhealthful behaviors. As well, adolescence is a critical period for developing positive habits and skills that create a strong foundation for healthy lifestyles and behavior over the full life span.

The health services system has an important role to play in promoting healthful behavior, managing health conditions, and preventing disease during adolescence. Yet health services and settings in the United States today are not designed to help many young people during those critical years. For example, more than one third of adolescents with current behavioral problems that require treatment or counseling do not receive mental health services. While many adolescents have access to private-office based primary care services, such services are not suited to their particular behavioral and developmental needs.

To address these issues, the National Research Council (NRC) and the Institute of Medicine (IOM), through the NRC–IOM Board on Children, Youth, and Families, conducted a study on health services for adolescents ages 10-19 in the United States. With funding from The Atlantic Philanthropies, a committee of experts highlighted critical health needs of adolescents, promising models of health services, and components of care that could strengthen and improve health services for adolescents and contribute to healthy adolescent development.

What Matters When Designing Adolescent Health Services?
Several behavioral and contextual characteristics influence the ways in which adolescents approach and interact with health care services, providers, and settings. When these characteristics are explicitly addressed in the design of health services for adolescents, such services can offer high-quality care that is particularly attuned to the needs of this age group.

- **Development matters** Adolescence is a period of significant and dramatic change spanning the physical, biological, social, and psychological transitions from childhood to young adulthood. This dynamic state influences both the health of young people and the health services they require.

- **Timing matters** Adolescence is a critical time for health promotion. Many health problems and much of the risky behavior that underlies later health problems begin during adolescence. Prevention, early intervention, and timely treatment improve health status for adolescents, prepare them for healthy adulthood, and decrease the incidence of many chronic diseases in adulthood.

- **Context matters** Social context and such factors as income, geography, and cultural norms and values can profoundly affect the health of adolescents and the health services they receive.

- **Need matters** Some segments of the adolescent population, defined by both biology and behavior, have health needs that require particular attention in health systems.

- **Participation matters** Effective health services for young people invite adolescents and their families to engage with clinicians.

- **Family matters** At the same time that adolescents are growing in their autonomy, families continue to affect adolescents’ health and overall well-being and to influence what health services they use. Young people without adequate family support are particularly vulnerable to risky behavior and poor health and therefore often require additional support in health service settings.

- **Community matters** Good health services for adolescents include population-focused resources as well as individual and family services. The environment in which adolescents live, as well as the supports they receive in the community, are both important.

- **Skills matter** Young people are best served by providers who understand the key developmental features, health issues, and overall social environment of adolescents.

- **Money matters** The availability, nature, and content of health services for adolescents are...
affected by financial factors such as public and private health insurance, the amount of funding invested in special programs for adolescents, and the support available for adequate training programs for providers of adolescent health services.  

Policy matters Policies, both public and private, can have a profound effect on adolescent health services. Carefully crafted policies are a foundation for strong systems of care that meet a wide variety of individual and community needs.

Where Do We Stand Today?  
On the basis of an extensive review of research, site visits, and public input, the committee concludes:

1. Most adolescents are thriving, but many engage in risky behaviors, develop unhealthy habits, and experience physical and mental health conditions that can jeopardize their immediate health and contribute to poor health in adulthood.

2. Although many current models of health services for adolescents exist, there is insufficient evidence to indicate that any one approach of health services for adolescents achieves significantly better results than others.

3. Health services for adolescents currently consist of separate programs and services that are often highly fragmented, poorly coordinated, and delivered in multiple public and private settings.

4. Health services for adolescents are poorly equipped to meet the disease prevention, health promotion, and behavioral health needs of all adolescents. Instead, adolescent health services are focused mainly on the delivery of care for acute conditions, such as infections and injuries, or special care addressing specific issues, such as contraception or substance abuse.

5. Large numbers of adolescents are uninsured or have inadequate health insurance, which can lead to a lack of access to regular primary care, as well as limited behavioral, medical, and dental care. One result of such barriers and deficits is poor health.

6. Health care providers working with adolescents frequently lack the necessary skills to interact appropriately and effectively with this age group.

7. The characterization of the health status of adolescents by such traditional measures as injury and illness is not adequate to capture the developmental and behavioral health of adolescents of different ages and in diverse circumstances.

How Can Adolescent Health Services Be Improved?  
The committee’s recommendations offer an initial strategy for improving adolescent health services:

Coordinate Primary Care Federal and state agencies, private foundations, and private insurers should support and promote a coordinated primary health care system for adolescents.

Focus on Disease Prevention, Health Promotion, and Behavioral Health Providers of adolescent primary care services and the payment systems that support them should make disease prevention, health promotion, and behavioral health a major component of routine health services. They should focus attention on the particular needs of specific groups of adolescents who may be especially vulnerable to risky behavior or poor health.

Engage the Community Health care providers, health organizations, and community agencies should develop coordinated, linked, and interdisciplinary adolescent health services.

Keep it Confidential Federal and state policy makers should maintain current laws, policies, and ethical guidelines that enable adolescents who are minors to give their own consent for health services and to receive those services on a confidential basis when necessary to protect their health.

Prepare the Providers Regulatory bodies for health professions that treat adolescents should develop licensing, certification, and accreditation requirements. Public and private funders should provide targeted financial support to expand and sustain interdisciplinary training programs in adolescent health.

Dr. Linda H. Bearinger, Center Director, participated on the IOM committee that developed these adolescent health services recommendations. Bearinger, collaborating with Center colleague and assistant professor, Dr. Carolyn Garcia, wrote the chapter in the final report on the educational needs of adolescent health care providers.

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