



**Penn State Cooperative Extension
Family and Consumer Sciences**

Societal Trends

Nutrition, Diet & Health:

- The incidence of childhood and adolescent obesity continues to increase – Jill Cox..... 1
- Decrease in leisure time physical activity and increase in sedentary lifestyles – Jill Cox..... 2
- Buying locally grown and/or organic foods – Catherine Cutter..... 3
- Health literacy affects individual health status – Lisa Davis..... 5
- Greater emphasis on health and wellness – Lynne Brown 6

Nutrition, Diet & Health:

Trend: The incidence of childhood and adolescent obesity continues to increase.

The Problem: As the incidence of childhood and adolescent obesity increase, so does the existence of the co- morbidities associated with obesity presenting our nation with a significant health and economic crisis.

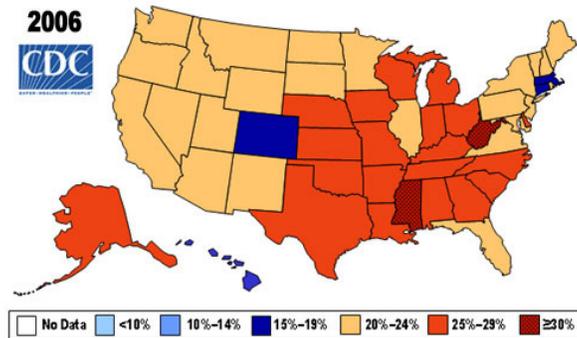
Trends: According to NHANES, the prevalence of overweight and obesity in children and adolescents was stable from the 1960’s until 1980. According to the chart below, the rates across all age groups has risen significantly and consistently since then.

Table 1. Prevalence of overweight among children and adolescents ages 2-19 years, for selected years 1963-65 through 1999-2002

Age (years) ¹	NHANES 1963-65 1966-70 ²	NHANES 1971-74	NHANES 1976-80	NHANES 1988-94	NHANES 1999-2000	NHANES 2001-02	NHANES 2003-04
2-5	-	5	5	7.2	10.3	10.6	13.9
6-11	4.2	4	6.5	11.3	15.1	16.3	18.8
12-19	4.6	6.1	5	10.5	14.8	16.7	17.4

Source: http://www.cdc.gov/nchs/products/pubs/pubd/hestats/overweight/overwght_child_03.htm

Although there is no data available as the specific percentage for children in Pennsylvania, when examining the Pennsylvania data for adults it is evident that there is room for improvement.



Obesity Trends in 2006

Future Projections: Although the CDC recently revealed that obesity trends for adults have leveled off, they are still high and in need of reversal. No data is yet available for 2006 for children. (<http://www.cdc.gov/nccdphp/dnpa/obesity/trend/maps/index.htm>). Currently, this generation of children is expected to be the first to have a shorter lifespan than their parents.

Implications for Extension Programming: There is a need to offer a larger variety of youth programs with emphasis not only on healthy eating but the incorporation of physical activity as well. Most of our nutrition programs have not addressed physical activity and both are needed if the current trends are to be reversed. In their course on Promoting Healthy Behaviors in Children, the Cooper Institute recommends that design strategies for intervention must include Caregivers, schools, peers and siblings as well as the community. Cooperative Extension is in the unique position to have contacts which can impact each one of these groups and can provide the guidance and training needed to implement such programs.

References: In addition to those listed above: *Promoting Healthy Behaviors in Children*, The Cooper Institute, 2007.

Submitted by Jill Cox

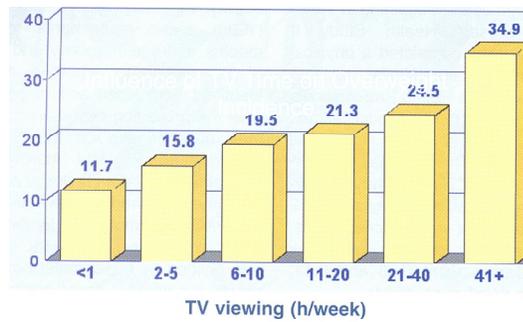


Trend: Decrease in leisure time physical activity and increase in sedentary lifestyles.

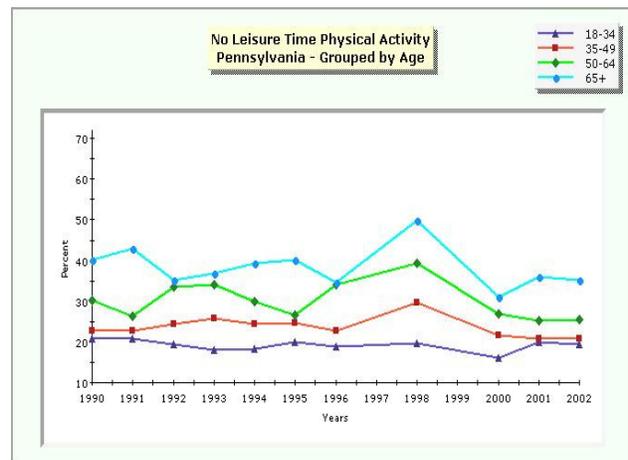
The Problem: Meeting the daily recommendations for physical activity is essential for good health and can prevent many of the chronic diseases facing our society yet a significant number of people nationwide are not meeting these daily recommendations.

Trends:

Influence of TV time on Overweight



Relationship between overweight and TV viewing
Ching *et al.* (1996)



Source: CDC

Future Projections: With the increase in use of technology and lack of facilities which encourage physical activity, these trends will at the very least remain stagnant and may even continue in a steady decline towards greater inactivity.

Implications for Extension Programming: Because of their access to schools and community programs, extension has the ability to encourage a large portion of the population in Pennsylvania to be more physically active using techniques based on the Stages of Change model. Educators can tailor their programs to meet the needs of the specific populations they serve. However, there is an increased need for education/resources especially for youth programming. There is also a need for strong role modeling in order to be convincing in the education process.

References:

- Marcus, Bess H; Forsyth, LeighAnn: *Motivating People to Be Physically Active*, Human Kinetics, 2003.
- Promoting Physical Activity and Healthy Nutrition in Afterschool Settings: Strategies for Program Leaders and Policy Makers, U.S. Department of Health and Human Services, 2006.
- Ward, Diane; Saunders, Ruth; Pate, Russell: *Physical Activity Interventions in Children and Adolescents*, Human Kinetics, 2007.
- Promoting Physical Activity: A Guide for Community Action*, U.S. Department of Health and Human Services, 1999.

Submitted by Jill Cox



Trend: Buying locally grown and/or organic foods

The Problem: There is a movement that promotes the concept that locally grown foods (fruits and vegetables) are safer and more wholesome than conventionally processed foods. (See CDT editorials over the past year).

There is a concern that imported foods, (i.e., from China) are tainted, unwholesome, and unsafe.

Trends: More consumers are purchasing fresh fruits and vegetables to improve their health and well being. Along these lines, consumers are beginning to purchase locally grown foods to reduce their “carbon footprint.”

The number of foodborne illnesses and deaths associated with fresh fruits and vegetables in the past decade has increased. Some of these illnesses were associated with organically grown products, while others were associated with conventionally processed and/or imported fruits and vegetables.

There are no scientific data to support the claim that locally grown foods are safer and more wholesome.

Future Projections: Given the push for healthy diets, there will be an increase in the consumption of fresh fruits and vegetables by Americans. Will this mean an increase in foodborne illnesses?

Consumers will purchase more locally grown food products to minimize their carbon footprints. Country of Origin Labeling (COOL) will be important to consumers.

Implications for Extension Programming:

- Good Agricultural Practices (GAP) trainings for fruits and vegetable producers
- Consumer information and trainings to address COOL, purchasing, storing, and preparing of fresh foods, including fruits and vegetables.

References: From www.centredaily.com

OUR VIEW< WORD'S GETTING AROUND ON FOOD -- FROM CDT EDITORIAL STAFF

Happy Valley is on the cutting edge -- make that the cutting-board edge -- of a growing movement, one of which popular-culture observers and even lexicographers are taking notice: eating locally grown food. There's even a term for it -- locavore -- and it happens to be The New Oxford American Dictionary's 2007 Word of the Year. (The variant localvore is also acceptable until Associated Press word czars rule otherwise.) Four women in San Francisco coined the word two...

Published on 2007-11-27, Page 6, Centre Daily Times (State College, PA)

PENN STATE PERSPECTIVE< FOOD FOR HEALTH AND HOMELAND SECURITY -- Dorothy A. Blair

What does climate change have in common with America's health care crisis and homeland security? Our poor food choices and lack of exercise are sickening us, and we are overly dependent on imported fossil fuels to move our bodies and deliver what passes for nourishment. We need cooperation among individuals and government at every level to green our food and transport systems. Our food choices reflect what is available and culturally acceptable. Though meat is entwined in our...

Published on 2007-09-03, Page 6, Centre Daily Times (State College, PA)

CENTRE COUNTY SEEING GREEN WITH FARM TOUR -- Stephanie Koons skoons@centredaily.com FROM CDT STAFF REPORTS

In an age of modern convenience and mega-supermarkets, many consumers can't always be sure about what is in the food they are buying. As an alternative, many people are supporting local farmers to get fresher products and connect with how their food is produced. At the second annual Centre County Farm Tour this weekend, the final event of Centre County's local foods week, participants will get a firsthand look at how produce, meat and dairy products are brought to their...

Published on 2007-08-10, Page 24, Centre Daily Times (State College, PA)

OUR VIEW -- FROM CDT EDITORIAL STAFF

Where does your food come from? We're not asking at what store you buy groceries, but where does your food

actually come from? Who grew it? Who raised the beef and chickens? Where was it all processed? How? Food is the most basic of life's essentials, but for most of us, it is the one from which we are farthest removed. Only two generations ago, we grew our own food or knew who did, and if our grandparents didn't raise their own animals, they knew the local...

Published on 2007-05-10, Page 8, Centre Daily Times (State College, PA)

OUR VIEW – FROM CDT EDITORIAL STAFF

Think spring, folks. Soon -- very soon -- locally grown radishes, lettuce, green onions and even strawberries will be available at farm stands and farmers' markets across the region. And if you need yet one more reason to embrace the "buy fresh, buy local" concept, consider the lead paragraph of a recent front-page story. "The federal agency that's been front and center in warning the public about tainted spinach and contaminated..."

Published on 2007-03-07, Page 6, Centre Daily Times (State College, PA)

Submitted by Catherine Cutter



Trend: Health Literacy Affects Individual Health Status

The Problem: The strongest predictor of an individual's health status is *not* their age, or racial or ethnic group. It is also *not* their educational level, their income or their employment status. So, what *is* the strongest predictor of an individual's health status? It is their health literacy skills.

Trends: The term health literacy, developed for the National Library of Medicine and used by the federal government in its *Healthy People 2010* health guidelines, is defined as **"the degree to which individuals have the capacity to obtain, process and understand basic health information and services needed to make appropriate health decisions."** An individual's capacity refers to both the innate potential of the individual as well as his or her own skills. An individual's health literacy capacity is mediated by education, with adequacy being affected by culture, language, and the characteristics of health-related settings.

The Health Literacy Component of the 2003 National Assessment of Adult Literacy identified three health-related categories in which individuals should possess adequate health literacy skills: clinical, prevention, and navigation of the health care system. Health literacy skills are needed for reading health information; dialogue and discussion; chart interpretation; decisions regarding participation in research studies; and using medical tools for personal or familial health care. For patients, health literacy means being able to follow instructions from a doctor, nurse or pharmacist, take medication properly or deal with a chronic illness. For health care practitioners, it means being able to help patients understand and act on health care information.

According to the American Medical Association (AMA), poor health literacy is a stronger predictor of a person's health than age, income, employment status, education level and race. Several adverse health outcomes are associated with limited literacy, such as limited health knowledge, increased incidence of chronic disease, poorer intermediate disease markers and a lower use of preventive health care services. People with low health literacy are also less likely to comply with prescribed treatment and self-care regimens. People with low health literacy make more errors with medications and are less likely to complete treatments; they also report poorer overall health, present disease in later stages and have a poorer understanding of treatment.

According to the Agency for Healthcare Research and Quality in its report, *Literacy and Health Outcomes*, low health literacy is linked to higher rates of hospitalization and higher use of expensive emergency services. Low literacy adversely impacts cancer incidence, mortality, and quality of life. Preventive cancer screening care may be ineffective, resulting in patients being diagnosed at a later stage. Treatment options also may not be entirely understood; therefore, treatment for some patients may not be the treatment best suited to meet their needs. Informed consent documents may be too complex for patients with low health literacy skills; consequently, patients may make suboptimal decisions about accepting or rejecting interventions.

Future Projections: It is estimated that at least one-third of Americans will have major health literacy problems; many will be elderly, with chronic conditions. Envisioning a health-literate America requires a blueprint for change in which the education, health systems, and providers are held accountable. Health literacy is an issue of ethics and equity and is essential to reducing disparities.

Implications for Extension Programming:

1. Hold open forums to raise awareness about health literacy and how organizations can be more attuned to addressing the issue
2. Collaborate with literacy councils to develop programming
3. Refer individuals to relevant sources of information
4. Compile information and “real-life” stories and forward to appropriate audiences

References:

- Communicating Health: Priorities and Strategies for Progress (July 2003). *Healthy People 2010*. Office of Disease Prevention and Health Promotion (ODPHP) of the U.S. Department of Health and Human Services (HHS). Retrieved 30 June 2006 from odphp.osophs.dhhs.gov/projects/HealthComm/background.htm.
- Health Literacy (31 May 2006). Health Literacy, Consumer Health Manual. National Network of Libraries of Medicine. Retrieved 22 June 2006 from nnlm.gov/outreach/consumer/hlthlit.html.
- Health Literacy (13 Feb 2006). Rural Assistance Center: Health Literacy. Rural Assistance Center. Retrieved 12 June 2006 from www.raonline.org/info_guides/healthliteracy/.
- Improving Health Literacy: CDC's Approach (17 May 2005). Communication at CDC: Resources: Featured Articles: Improving Health Literacy. Center for Disease Control. Retrieved 13 June 2006 from www.cdc.gov/communication/resources/literacy.htm.
- Health Literacy: A Policy Challenge for Advancing High-Quality Health Care. Ruth M. Parker, Scott C. Ratzan and Nicole Lurie. *Health Affairs*, 22, no. 4 (2003): 147-153.
- Nielsen-Bohman, Lynn, Allison M. Panzer, and David A. Kindig. 2004. *Health Literacy: A Prescription to End Confusion*. THE NATIONAL ACADEMIES PRESS.
- What is Health Literacy? (2006) Partnership for Clear Health Communication - What is Health Literacy? Partnership for Clear Health Communication, Pfizer Inc. Retrieved June 13, 2006 from www.askme3.org/PFCHC/what_is_health.asp.

Submitted by Lisa Davis



Trend: Greater emphasis on health and wellness

The Problem: Despite government and public health efforts, chronic diseases like heart disease remain major killers and insufficient numbers of American are making lifestyle choices that would reduce their risk of poor health. Economic and demographic factors have shifted the emphasis of health care to increasing wellness, wherein appropriate food choice and exercise patterns are of great importance. As

health care becomes less available to significant portions of the population, local community access to health and wellness programs are needed.

Trends:

- Cost of health care is consuming more of the gross national product and the Federal office overseeing pension funds has recently allowed businesses to consider dropping health care coverage for retired workers. This will put more pressure on Medicare and Medicaid as the baby boomers retire and the population grays.
- Cardiovascular disease remains the leading cause of death for both men and women. However this is still seen as a man's disease and only recently have guidelines for treatment of women been published. Screening and interventions to reduce risk of coronary heart disease in women remain underutilized.
- Prevalence of diabetes continues to grow so the number of diagnosed cases is 17.5 million. The estimated cost in 2007 is \$174 billion. The impact of this disease is shared across all of society through increased health insurance premiums, losses in productivity and reduced quality of life for those with diabetes and their families.
- Obesity and high blood pressure are two significant risk factors for development of heart disease and diabetes. The prevalence of obesity (BMI>30) has increased significantly in the US since the 1970s so that now about 33% of adults are obese and 16% of children. Trends for children are particularly disturbing. In recognition of the trend in obese children and the cumulative findings that indicate the pathological changes leading to heart disease can be found in adolescents, the American Heart Association released guidelines for primary prevention of atherosclerotic cardiovascular disease beginning in childhood.
- Metabolic Syndrome, defined as clustering of undesirable blood lipid levels, high blood pressure, elevated blood glucose and elevated inflammatory markers, is on the rise and is now officially recognizes as a cardiovascular risk factor. This brings the fields of cardiovascular disease and diabetes together as efforts can be made to reduce the risk of both diseases simultaneously. Lifestyle changes, i.e. healthful eating and fitness habits, are the first line of treatment and can reduce every metabolic risk factor.
- The 2005 Dietary Guidelines recommends Americans consume more plant- based foods including whole grains, fruits and vegetables and increase intake to 9 servings of fruits and vegetables a day. Despite over a decade of effort, many Americans still eat less than 5 fruits and vegetables a day and most are confused about finding whole grains.

Future Projections: Efforts to alter lifestyle habits will become more intense in the next 5-10 years. We are already seeing more efforts by health care insurance providers and insurance companies like Blue Cross, etc. to encourage people to stop smoking, improve eating patterns, lose weight and get more exercise. It remains to be seen if these will succeed without significant worksite incentives. However, altering these population patterns is critical to control health care costs, which are driving the effort to reduce company health care coverage. In addition, as globalization continues, loss of employment will continue and be especially devastating in rural areas where employment opportunities are limited. Health insurance is usually lost with unemployment. This will produce underinsured and less healthy groups in resource stretched communities.

Implications for Extension: Extension educators will need to work with community groups and employers to help adults and children understand and engage in healthful lifestyle practices. Interactive, evidence based programs that foster continued engagement will be needed. Challenges will include limited resources, adequate and appropriate exercise facilities and the rising cost of food, especially of fruits and vegetables.

References:

- American Diabetes Association. 2008. Economic costs of diabetes in the US in 2007. *Diabetes Care* 31, 1-20
- Mieres JH. 2008. Review of the American Heart Association's Guidelines for cardiovascular disease prevention in women. Available at heart.bmj.com
- Ogden CL et al. 2007. Obesity among adults in the US. No changes since 2003-2004. *NCHS Data Brief*, November.
- Kavey, RW et al. 2003. American Heart Association Guidelines for primary prevention of atherosclerotic cardiovascular disease beginning in childhood. *Circulation* 107, 1562-1566.
- Grundy SM. 2007. Cardiovascular and metabolic risk factors: How can we improve outcomes in high-risk patients? *American Journal of Medicine* 120, S3-S8.

Submitted by J Lynne Brown

