Inside NCHS

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This PDF edition of *Inside NCHS* is a non-interactive version of our full electronic newsletter. To experience the full interactive version of *Inside NCHS*, including live linked content and our interactive "Closer Look" feature, visit the NCHS website, http://www.cdc.gov/nchs.

Director's Corner: The Value of Collaborations

Ed Sondik, NCHS Director

One of the more gratifying aspects of working at NCHS is the extraordinary opportunity to collaborate with researchers across the government. This is well illustrated by the release of two important reports.

The first is *America's Children in Brief: Key National Indicators of Well-Being, 2012*. As I say in the press release, the findings in this report, drawn from many data systems across the federal spectrum, allow us to track key progress in the fight against many major public health threats, such as meningitis (which, as I write this, is a top news story). The second is *Older Americans 2012: Key Indicators of Well-Being*, which provides a broad description of areas of well-being that are improving for older Americans, and those that are not.

Both reports are the result of exceptional interagency collaborative ventures - The Federal Interagency Forum on Child and Family Statistics, and the Federal Interagency Forum on Aging-Related Statistics. These consortia comprise multiple federal agencies – 11 in the child and family forum, 15 in the aging forum. Fifteen agencies all collaborating together may seem like a lot, but to us it's business as usual.

I have heard it said that NCHS has more collaborators than any other agency our size. We list a number of our partnerships and collaborations on our website (along with links to the two reports I mentioned), but those are just the tip of the collaborative iceberg. For example, we actively partner with the National Association for Public Health Statistics and Information Systems (NAPHSIS), whose approval is required for access to, and use of, our extensive national vital records-based data sets. And within the Center, every survey and vital statistics system is a product of collaboration.

Over the years, we have developed a number of global collaborations, spanning a wide array of health care and statistical topics. We have bilateral relationships with Canada, Russia, and Mexico; collaborations with international organizations such as United Nations and the World Health Organization; multi-country collaborations on topics ranging from air pollution, automating mortality statistics, and indigenous health measurement; and international programs devoted to civil registration and vital statistics.

This issue of *Inside NCHS* features articles on several significant collaborations. The National Health and Nutrition Examination Survey, or NHANES, which has been around as long as NCHS itself, is the epitome of statistical collaboration, working with more than 30 federal agencies. Eighteen separate federal agencies participate along with us in Healthy People 2020. And our interactive collaboration with the National Library of Medicine has helped us re-envision how we will present our data now and in the future, putting us at vanguard of technology and health statistics.

Our collaborations allow us to combine technical, statistical, and financial resources to accomplish things that we can’t do alone. (About one-third of NHANES funding, for example, comes from our collaborators.) Fortunately, our community of statisticians and public health professionals embraces collaboration as an integral part of fulfilling our various missions. As we look ahead to a new year, let's hope the spirit of collaboration and cooperation extends to everyone involved in the vital work of public health.

Ed Sondik
Director

For the full interactive version of this article, visit the NCHS website, http://www.cdc.gov/nchs.

Mobile Examination Centers Measure America's Health

Thousands of subjects, tens of thousands of miles, and nearly two years after it began, NCHS's latest journey to map the health of the American public is slowly drawing to a close.

In late-January 2013, the mobile examination centers of the National Health and Nutrition Examination Survey (NHANES) will pause while staff members complete their last interviews and examinations for the 2011-2012 NHANES. Then, after the final data are submitted for analysis, they will undergo a quick re-fitting and re-training and hit the road for another two-year expedition.

NHANES is a program of studies designed to measure and assess the health and nutritional status of adults and children in the United States. It is the only nationally representative health survey conducted in the United States that combines both interviews and physical examinations to develop a thorough, detailed picture of American health. Begun in the 1960s, NHANES became a continuous program in 1999.

In its 50-plus years of service, NHANES has contributed data that identified the dangers of cigarette smoking and second-hand smoke, lead in gasoline and paint, and mercury exposures in women and children. NHANES data form the basis for pediatric growth charts, one of NCHS's most widely used products. NHANES dietary data are used for Federal nutrition recommendations, dietary programs, and policy. Its "firsts" include the first nationally measured physical activity data in the U.S., and the first nationally exam-based survey of gallbladder disease.

NHANES conducts exams in mobile examination centers (MECs), which are essentially traveling clinics. Each MEC comprises four 52-foot-long trailers; the 2011-12 survey includes a fifth 48-foot-long trailer for conducting the National Youth Fitness Survey (see related story). Three MECs travel across the country to randomly-selected destinations, with two in operation and one being set up at any given time.

Each MEC is a self-contained, state-of-the-art medical facility that features some of the most advanced medical technology available. A Hologic DXA full-body scanner provides images displaying the distribution of fat, lean tissue, and bone, a critical tool in assessing obesity and osteoporosis. Secure onboard telecommunications equipment provides instantaneous, centralized backup of data at NCHS from data collected at MEC sites anywhere in the U.S. (Starting in 2013, the dental exam will feature a new digital camera designed to detect fluorosis. NHANES will employ three of the six cameras currently in available.)

NHANES Mobile Examination Center

Each survey is updated from the preceding one to focus on emerging issues, dig deeper into existing ones, and explore areas that might not normally get attention. New in the 2011-2012 survey are cognitive skills examinations for adults 60 and older, Asian-American oversampling, and the National Youth Fitness Survey. NHANES is also pilot-testing a chemosensory exam that measures the ability to taste and smell certain substances. Sponsored by the National Institute on Deafness and Other Communication Disorders, the exam seeks to collect data on taste and smell disorders. It will be a full component of the 2013-2014 survey. Impaired taste and smell can lead to unhealthy dietary changes and exposure to unsafe conditions, or be symptomatic of serious health conditions including Parkinson's disease, Alzheimer's disease, or multiple sclerosis.

Collaborators from CDC, NIH, the Department of Agriculture, the Department of Defense, and other agencies propose and help design survey examinations, questionnaires, and laboratory tests. They also contribute roughly one-third of NHANES's funding, and many millions more through their in-kind contributions.

For the full interactive version of this article, visit the NCHS website, http://www.cdc.gov/nchs.

New Survey Measures the Fitness of America's Youth

The NHANES National Youth Fitness Survey (NYFS), conducted as a separate survey alongside the National Health and Nutrition Examination Survey (NHANES), is receiving an enthusiastic response from its young participants.

For the NYFS team in the Division of Health and Nutrition Examination Surveys, attaining good response rates is critical to the program's success. The NYFS, funded in 2011 through the Affordable Care Act (ACA), has received funding for the 2012 survey year only.

The NYFS was added to the NHANES program in response to the need for data on the physical fitness of children and teens. The NYFS collects data on exercise and nutrition habits of U.S. children ages 3 to 15, through interviews and fitness tests conducted in a dedicated mobile examination center (MEC) trailer. A team of four (two exercise physiologists and two nurse practitioners, all with extensive pediatric experience) administer the fitness tests, which take one and a half to two hours to complete, depending on age.

The NYFS is a model of comprehensive youth-targeted fitness and nutrition data collection, an accomplishment made all the more remarkable given the tight time constraints under which it was created. The NYFS team had just eight months to design the new survey, and take it on the road.

The last time a national survey with physical measurements of youth fitness was conducted was 25-plus years ago: The Department of Health and Human Services's National Children and Youth Fitness Study I with ages 10-17 years in 1984, followed by the National Children and Youth Fitness Study II with ages 6-9 years in 1987.

America's youth have undergone significant changes in the 25 years since the last survey. An entire "supersize" generation has appeared. According to *Let's Move!*, First Lady Michelle Obama's initiative dedicated to solving the problem of obesity, nearly one in three children are overweight and one in six are considered obese, based on data from NHANES. This has profound implications for public health policy now and in the future, and drives the need for accurate, comprehensive data on the current state of American youth fitness.

The new NYFS directly addresses current physical activity levels and nutrition habits through in-depth questionnaires and tests. The participants are selected from the same locations as NHANES, but they are chosen from a separate sample. Children who participate in NHANES, or belong to a household with NHANES participants, are excluded from the NYFS. Participants are chosen based on age and gender, and

take part in an in-home interview that includes a physical activity questionnaire prior to coming to the mobile examination center (MEC).

The heart of the survey is the MEC trailer–a 48-foot-long fitness center designed to collect an extensive range of physical activity data. Ten fitness components are housed in the wheelchair-accessible trailer. The children and teens arrive at the exam dressed in shorts, tee shirts, athletic shoes and socks (although the trailer stocks an assortment of athletic shoes in all sizes in case participants arrive unprepared). Inside the trailer, body measurements are taken, and then activity reigns supreme.

Physical Activity

The most recognizable component is a treadmill, which is used to assess maximal endurance in 6 to 11 year olds and aerobic capacity in 12 to 15 year olds. The endurance test, developed in consultation with a pediatric cardiologist, is very popular with the younger children, who are asked to walk and then run until they can't run anymore. They finish the test exhausted, but smiling.

At the other end of the familiarity scale is "The Chair," a custom-designed device created to measure lower body muscle strength in 6 to 15 year olds. Participants are allowed to use only their legs and lower bodies in this challenging test, and often call this their favorite exam.

A 24-hour dietary recall interview is conducted with parent and participants, as appropriate for age. The survey also gathers data from the physical activity monitor (PAM), a tri-axial accelerometer that children wear on their wrists to measure body movement for seven days and nights, which is then returned via mail.

Dietary Recall Interview

Staff from the CDC Division of Nutrition, Physical Activity, and Obesity worked with NHANES on proposed physical activity and fitness tests, and provided questions for the physical activity questionnaire. When the NYFS team was developing activity and fitness tests for the youngest children, 3- to 5-year-olds, they found that there were few standardized tests to assess fitness in this age group.

Their solution: the Test of Gross Motor Development, version 2, or TGMD-2. The TGMD is the gold standard for gross motor skills assessment, used worldwide, and fit perfectly into the NYFS's objectives. The TGMD comprises a total of 12 tests. Six measure locomotor development: participants run, gallop, slide, leap, hop, and

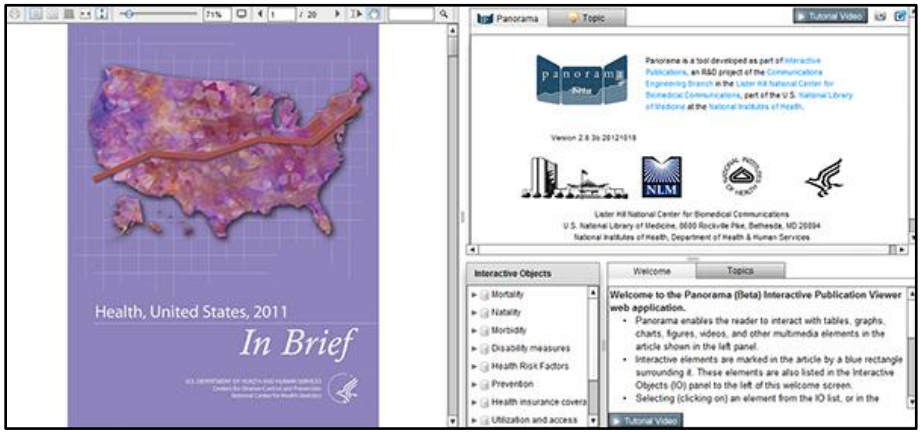
jump horizontally. The remaining six tests assess object control, as participants roll, toss, dribble, catch, bat, and kick a ball.

The fitness data from the NYFS, anticipated in the Fall of 2013, will be the first from a national survey on measured youth fitness in decades, and will set an important baseline for future studies and public health policy decisions.

For the full interactive version of this article, visit the NCHS website, http://www.cdc.gov/nchs.

New Interactive Report

Interactive Health, United States, 2011, In Brief, is a new interactive version of *Health, United States, 2011, In Brief*. It was developed jointly with the National Library of Medicine (NLM) of the National Institutes of Health.



Interactive Health, United States, 2011, In Brief

The new interactive report provides text, charts, and tables from *Health, United States, 2011*. Additional data from the full *Health, U.S.*, report are available for the user to create custom charts. A wide range of related health topics can be explored in great depth through links to relevant information on other sites. Easy-to-follow video tutorials guide users through the interactive website.

NLM approached NCHS in November 2011 to suggest a collaboration using Panorama, their interactive software. Developers believed that Panorama could expand the usefulness of the wealth of health statistics collected and disseminated by NCHS by letting users access data in an interactive format. NCHS decided to pursue this innovative program and Health, U.S., In Brief was chosen as the first interactive product.

NCHS is the first to use NLM's interactive software for data. NCHS health statistician Sheila Franco, the principal NCHS contact with the center's NLM collaborators, describes the process as "a terrific collaboration. We have the data expertise and can describe how we want the data presented. And they have the foresight and software expertise to bring it to life." Usability assessments from the 2012 National Conference on Health Statistics were very positive, and the collaborators are looking ahead to the release of the 2012 In Brief and other applications.

To try this new interactive report, visit the "Health, United States" section of the NCHS website at http://www.cdc.gov/nchs.

For the full interactive version of this article, visit the NCHS website, http://www.cdc.gov/nchs.

2012 National Conference on Health Statistics

More than 1,000 attendees from federal and regional governments, academia, nongovernmental organizations, and the private sector converged on the Renaissance Washington DC Downtown Hotel August 6–8 for the 2012 National Conference on Health Statistics.

Plenary Session Speakers Address Health, Statistical Challenges

National leaders in statistics, health research, and health policy shared the stage at the Tuesday and Wednesday morning plenary sessions. On Tuesday, Ed Sondik gave an overview of NCHS and the current state of health care statistics. Katherine K. Wallman, Chief Statistician of the U.S. Office of Management and Budget, told the assembly that, "We are challenged to change" in the face of a "perfect storm" of budget constraints, dwindling human capital, confidentiality concerns, uncertain respondent cooperation, and "casual" statistics offered by third-party entrepreneurs. Dr. Harold Luft, Director and Senior Investigator, Department of Health Policy Research, Palo Alto Medical Foundation Research Institute, walked attendees through various scenarios highlighting the value of data.

Dr. Mohammed Akhter speaks at Wednesday's plenary session.

Pamela Hyde, Administrator of the Substance Abuse and Mental Health Services Administration (SAMHSA), kicked off Wednesday's plenary session by stressing the importance of quality data in developing prevention, treatment, and recovery programs for national behavioral health issues. Dr. Mohammed Akhter, Director of the District of Columbia Department of Health, urged the assembly to take the "people's point of view–what do they expect, and what do we deliver?" Adequate data, he said, are critical to serious long-term planning for the public's health. The morning's final speaker, Dr. Lisa A. Simpson, President and CEO of AcademyHealth, reinforced the human side of health care research and asked her listeners to pay attention to the people behind the numbers: "Your data make you credible. Your stories make you memorable."

Although each speaker's presentation reflected their different backgrounds and skills, nearly all raised the issue of increasing demand for data on the subfederal level. "How do we take data collected at the federal level and make it meaningful on the community level as a resource for personal decision making?" asked Dr. Sondik in his introductory remarks. His concern was echoed by Dr. Luft, who noted "state-level data are critical"; Dr. Simpson, who emphasized that "state and local public health officials need data"; and Dr. Akhter, who stressed the need for data collection on a regional basis that crosses jurisdictional boundaries, for effective regional public health planning.

Scientific Sessions Explore Today's Health Care Issues

The Conference featured 28 scientific sessions held over the two days of the main Conference. Topics touched on nearly every aspect of public health and health statistics, including electronic health records; using local data to improve local health; autism spectrum disorder; the Drug Abuse Warning Network; mortality surveillance; national data and Asian American population health; the new National Survey of Residential Care Facilities; suicide in America; and understanding lesbian, gay, bisexual, and transgender health.

The role of social media is discussed during Wednesday's closing sessions.

"Does Social Media Have a Role in Federal Statistics?" stood out among the many well-attended sessions. A panel of top communicators representing federal statistical agencies discussed the pros and cons of social media campaigns to increase participation, facilitate dissemination, and connect with a wider general audience. (Conference attendees had an opportunity to participate in social media with NCHS through the Events section of the NCHS Facebook page, where updates were posted throughout the Conference.)

Learning Institute Sessions Give Data Users First-Hand Experience

This year's Learning Institute featured 16 hands-on session, and 5 lecture sessions on NCHS surveys and resources. Both beginner and advanced sessions were available for the National Ambulatory Medical Care Survey (NAMCS), the National Hospital Ambulatory Medical Care Survey (NHAMCS), and the National Health Interview Survey (NHIS).

Key resources of the redesigned NCHS website are discussed.

The hands-on session demonstrated how to use the Web tutorial for the National Health and Nutrition Examination Survey (NHANES) and the NCHS-CMS (Centers for Medicare & Medicaid Services) linked records. (For more on NHANES/CMS data linkage, see the August 2012 issue of Inside NCHS.) Another popular Web tutorial was "Finding Key Resources From NCHS." The session gave attendees the opportunity to explore the redesigned NCHS website, developed to provide improved navigation and access to NCHS's extensive resources.

Other sessions delved more deeply into the interactive world of NCHS statistics. The Division of Vital Statistics (DVS) sponsored "VitalStats—Accessing Natality Data Online," which trained participants in everything from retrieving prebuilt tables to choosing variables to create custom tables. The Office of Analysis and Epidemiology (OAE) presented "Health Data Interactive," which introduced participants to NCHS's state-of-the-art data tool. All in all, Learning Institute attendees were pleased with

the high quality of the sessions and the opportunity to earn continuing education credits.

Students Shine in Poster Sessions

Monique Brown receives the first place student poster prize from NCHS Director Ed Sondik

For 2012, NCHS took student participation to a new level, and students rose to the occasion. The Poster Session this year focused on student research. Nearly half of all abstracts received were from students. Of those, 89 were chosen to display their posters for judging. Three winners—chosen based on best abstract and best poster presentation—were recognized at the Wednesday morning plenary session and were presented with awards. They were Monique Brown of Virginia Commonwealth University, "Beyond Battering: Association Between Intimate Partner Violence and Preventive Screening Behaviors Among Women"; Alena Maze of NCHS, "Identifying Factors Related to the Implausible Gestational Ages Using Mixture Models"; and Tapan Mehta of the University of Alabama at Birmingham, "Obesity and Mortality: Are the Risks Declining? Evidence from a Meta-analysis of Eighteen Prospective Studies in U.S."

Although students had participated in past Conferences, this marked the first year they participated in such numbers. The program received an overwhelmingly positive response from planners, attendees, and students alike. Jacqueline Ferguson, of the Johns Hopkins Bloomberg School of Public Health, rode the early morning commuter train from Baltimore to present her topic. She enjoyed the opportunity to present and to attend several sessions. "Totally worth the 4 a.m. commute," she said.

2012 Conference a Team Effort

The 2012 National Conference for Health Statistics was produced with the involvement of many people within NCHS. Conference co-chairs oversaw teams dedicated to the Conference's many elements–plenary sessions, scientific sessions, exhibits, Learning Institute, poster sessions, signage, registration, and printed and web-based program materials. In all, more than 75 staffers from across the programs contributed to the Conference's success.

For the full interactive version of this article, visit the NCHS website, http://www.cdc.gov/nchs.

Ask the Expert: Dr. David Huang

[Editor's note: NCHS is responsible for monitoring and analyzing data for the HHS Healthy People program. In addition, about one-third of the program's objectives use NCHS-collected data. We spoke with Dr. David Huang of the Office of Analysis and Epidemiology (OAE) about the Healthy People program.]

Q. Healthy People 2010: Final Review comes out this month. What can you tell us about its findings? How did we do, as a nation?

A. We look at the data in terms of our targets, which are unique to Healthy People as a national initiative. A target is an achievable, measurable goal, like reducing lung cancer by 25 percent. We ask, did the nation move toward or way from the target? Did we meet or exceed it?

Dr. David Huang

Overall, the nation met about 25 percent of the Healthy People 2010 targets, moved toward about 50 percent, and moved away from about 25 percent. So overall, for 75 percent of our targets, we either moved toward or met our objectives. But for those other 25 percent – notably obesity, physical activity targets–not so surprisingly as a nation we're not doing very well. We did do well in areas like occupational safety and health and immunization and infectious diseases. The U.S. met many of the targets in those topic areas.

Some other findings we've highlighted are in the area of disparities. There were some increases, some decreases, but for the majority of objectives, disparities persisted. That's an important takeaway - disparities do persist, whether it's by race/ethnicity, income, education level, disability, geography, and so on. In our Final Review we've highlighted disparities using red tables. The darker the red, the more pronounced the disparity. This gives users an at-a-glance view of where disparities are of greatest magnitude.

Q. Where do the data come from?

A. Data are collected from many different sources, and analyzed by the NCHS/OAE Health Promotion Statistics Branch. We have 17 people in the branch, including our Branch Chief, Rebecca Hines. We serve as the statistical advisor to the Healthy People initiative. We give objective data analysis and help advise the policy component, although we are not charged with giving any policy recommendations.

We collect and integrate data from more than 160 different sources. About one-third of Healthy People objectives are measured using the main NCHS data

systems: the National Health Interview Survey, National Health and Nutrition Examination Survey, National Vital Statistics System, National Survey of Family Growth, and the National Health Care Surveys.

We also use data from other surveys within the Department [of Health and Human Services], smaller surveys run by other agencies such as NIH, and smaller data systems run outside of the Department, like Census. We also receive data from some non-governmental data systems, but they tend to be a bit smaller in scope.

All the data in Healthy People are nationally representative; to be included as an objective in Healthy People, a nationally representative data source needs to be available.

Q. Now that Healthy People 2010 is wrapped up, what's in store for Healthy People 2020?

A. For Healthy People 2020, we've expanded the scope and focus. The initiative expanded from 28 focus areas to 42, which we're now calling topic areas. The number of objectives also increased - we had a little under a thousand objectives for 2010, and for 2020 we have 1,200.

Some of the new areas of interest are population-specific, so we have new topic areas on older adults, early and middle childhood, adolescent health, and lesbian, gay, bisexual and transgender health. We are also tracking some emerging areas, like health care-associated infections, preparedness, health-related quality of life and well-being, and social determinants of health.

Q. How do you measure social determinants?

A. In the social determinants group, we actually found that when we looked at the existing Healthy People 2020 objectives, there were a lot that already address social determinants of health. For example, the measure that tracks having health insurance is in the Access to Health Services topic area, and the high school graduation rates measure is already in the Education and Community-Based Programs topic area.

We did a sweep of Healthy People 2020, and tagged those objectives which we determined were closely tied to Social Determinants of Health already. No need to reinvent the wheel. And then we looked at where the gaps were, and looked at some overarching frameworks for considering Social Determinants of Health. For example, we found that the World Health Organization actually has a Committee on Social Determinants of Health and had published a report that served as part of the basis for the Healthy People framework.

We came up with a framework consisting of five different domains which we're basing our work on: Neighborhood/Built Environment, Education, Economic Stability, Health and Health Care, and what we're calling Social and Community

Context. We're coming up with a list of objectives – both existing and new -- for each domain.

Our first round of proposed new Social Determinants of Health objectives – those not found elsewhere in Healthy People -- includes measures where we can easily get the data, the low-hanging fruit. We're looking at the portion of children aged 0 to 17 with at least one parent employed year-round. Then there are two objectives related to poverty: poverty for the overall population, and poverty for children aged 0 to 17. Another measure is the proportion of high school completers who are actually enrolled in college the October following graduation. That's either a GED or a regular high school diploma, and then either a two-year or four-year college.

Q. How do you manage all those data from all those different data sources? It sounds challenging, to say the least.

A. One of our programmers, Bob Francis, has developed an in-house system that integrates all these data and puts them into a format that's uniform across all objectives, whether they are programmed by us or not. We provide templates to the programmers working on Healthy People data across and outside the government, they populate them, and when they come in they can be fed directly into our in-house system.

Q. With all these expanded topics and objectives, all this increased activity, are you also expanding the branch?

A. No, we're doing the work with pretty much the same amount of staff [laughs].

For the full interactive version of this article, visit the NCHS website, http://www.cdc.gov/nchs.

In the News

Consumer Reports Cites NHANES Research in Articles on Arsenic in Food, Juice

An in-depth report in the November 2012 issue of *Consumer Reports* relies extensively on data collected by the National Health and Nutrition Examination Survey (NHANES) (see related article). The report, "Arsenic in your food," exposes the presence of arsenic, a potent human carcinogen, in nearly every food product category—particularly rice and rice-based products such as baby food. The publication analyzed 2003–2010 NHANES urine samples collected from 3,633 participants ages 6 and over whose urine was tested for arsenic and who had reported what they had had to eat or drink from midnight to midnight the day before their examination. According to *Consumer Reports*, the analysis found that, on average, "people who reported eating one rice food item had total urinary arsenic levels 44 percent greater than those who had not, and people who reported consuming two or more rice products had levels 70 percent higher than those who had no rice."

"Arsenic in your food" is a follow-up to a January 2012 *Consumer Reports* article, "Arsenic in your juice." In that article, analysts used NHANES data to show that "study participants who reported drinking apple or grape juice had total urinary arsenic levels that were on average nearly 20 percent higher than those who didn't." Both articles called for federal action in setting limits on arsenic levels.

USA Today Highlights "Births: Preliminary Data for 2011" Report

A front page article in USA Today's October 3, 2012, issue focused on the *National Vital Statistics Report* "Births: Preliminary Data for 2011," released the same day. The article, "Births in Teens, 20s Hit New Lows," noted that the number of babies born to teenagers and some women in their 20s hit record lows in 2011, contrary to demographer expectations of a mini-baby boom. The article further stated that the data suggest a deeper and potentially longer-lasting change in birth patterns. The article also quoted report co-author Stephanie Ventura.

JAMA Article Analyzes NHANES Data to Link BPA and Childhood Obesity

An article in the September 19, 2012, issue of *The Journal of the American Medical Association* (JAMA) draws on analysis of NHANES data in examining associations between urinary Bisphenol A (BPA) concentration and body mass outcomes in children. In the article, "Association Between Urinary Bisphenol A Concentration and Obesity Prevalence in Children and Adolescents," the researchers (none from NCHS) used NHANES data from 2,838 participants aged 6 through 19 years randomly selected for measurement of urinary BPA concentration in the 2003–2008 NHANES. The researchers concluded that, "[u]rinary BPA concentration was significantly associated with obesity in this cross-sectional study of children and adolescents," although they did not rule out the possibility that obese children ingest food with higher BPA content or have greater adipose stores of BPA. BPA is a manufactured chemical found in canned food, polycarbonate-bottled liquids, and other consumer products, according to the article.

For the full interactive version of this article, visit the NCHS website, http://www.cdc.gov/nchs.

Milestones and Honors

Long-time DHANES, NHANES Director Retires

Clifford Johnson, Retired Director of the Division of Health and Nutrition Examination Surveys

Mr. Clifford Johnson, Director of the Division of Health Examination Statistics (DHANES) and its flagship program, the National Health and Nutrition Examination Survey (NHANES), retired from NCHS on November 30, 2012.

Mr. Johnson had been with the NHANES program for more than 40 years. Starting as a research analyst, he rose through the ranks to become branch chief, and, later, special assistant to the director of the division. Mr. Johnson was appointed Deputy Director in 1996 and Division Director in 2001.

As the Director of DHANES, Mr. Johnson managed the planning and implementation of the ongoing NHANES program, and oversaw the overall analytic research activities for the survey. He has been a member of many national and international committees and workshops on nutrition and health, and has served as an expert consultant to New Zealand, Korea, the European Union, South Africa and Canada on the content and conduct of examination surveys

Mr. Johnson has authored or co-authored over 125 articles, and given more than 300 oral presentations. He has received many NCHS and CDC awards, including the Owen Thornberry Memorial Award (2007) for "a career exemplified by dedicated leadership that has inspired staff to achieve beyond what they thought possible in program and personal career goals."

In a 2010 video commemorating NHANES's 50th anniversary, Mr. Johnson reflected on his legacy and the next fifty years:

"[I wish that NHANES] keeps going, that there's another 50 years and that 50 years from now, what I would say about those brilliant people who, in 1957 and [1958], planned this survey in such a way that we're still using almost all the same techniques and procedures, we just became more sophisticated–that 50 years from now people will be saying, "We're still doing the same thing that Cliff and his staff did at this point in time, but just using new technologies and new information.'"

Mr. Johnson holds a B.S. degree in mathematics and statistics from Colorado State University (1969) and an M.S.P.H. in biostatistics from the University of North Carolina (1970).

RDC Director Honored by American Public Health Association

Research Data Center Director Peter Meyer holds his APHA Statistics Section Award for Government at the APHA Annual Meeting on October 30, 2012.

Mr. Peter Meyer, Director of the Research Data Center, was awarded the Statistics Section Award for Government by the American Public Health Association (APHA), on October 30, 2012, at the APHA annual meeting in San Francisco.

Mr. Meyer was honored for his "exceptional leadership, as Director of the National Center for Health Statistics Research Data Center, in making important and informative public health data accessible to researchers and policymakers while protecting the confidentiality of the data; and for sharing his expertise in study design, data analysis, data dissemination, and confidentiality with data users and data producers, both nationally and internationally."

Mr. Meyer, M.A., M.P.H., also serves as Assistant Director of NCHS's Office of Research and Methodology. With a background in public health and economics, Mr. Meyer has contributed to projects addressing survey methodology, geospatial statistics, statistical literacy and education, and development of socio-economic measures for surveys, among many others.

Marjorie Greenberg Honored by Public Health Data Standards Consortium, World Health Organization

Ms. Marjorie S. Greenberg, Chief of Classifications and Public Health Data Standards Staff, was honored on November 8, 2012, by the Public Health Data Standards Consortium. She was recognized for her "outstanding service and valuable contribution" to the organization. The Public Health Data Standards Consortium is a non-profit membership-based organization of federal, state, and local health agencies; professional associations; academia; public and private sector organizations; international members; and individuals. Ms. Greenberg was instrumental in establishing the Consortium 14 years ago to assure that public health is represented in health data standardization activities.

Marjorie Greenberg receives an award from Dr. Bedirhan Ustun from the WHO and Dr. Richard Madden of the University of Sydney.

Ms. Greenberg also received an award from the World Health Organization (WHO) and the Brazilian Ministry of Health on October 18, 2012, during the annual meeting of the WHO Family of International Classifications (WHO-FIC) Network held in Brasilia, Brazil. The award recognized Ms. Greenberg's contributions to WHO's work in Classifications, Terminologies and Standards. Ms. Greenberg has been Head of the WHO Collaborating Center for the Family of International Classifications (FIC) for North America since 1996, and has chaired the WHO-FIC Education Committee since its inception in 1999.

Ms. Greenberg received her bachelor's degree from Wellesley College and a master's degree from Harvard University.

For the full interactive version of this article, visit the NCHS website, http://www.cdc.gov/nchs.

Closer Look: Healthy People 2020

[The full interactive version of this "Closer Look" feature includes graphics and linked content not available in this PDF format. To experience the full interactive version of "Closer Look: Healthy People 2020," visit the Inside NCHS *section of the NCHS website, www.cdc.gov/nchs.]*

Leading Health Indicators, an important part of the Healthy People 2020 initiative, are critical health issues that–if tackled appropriately–will dramatically reduce the leading causes of death and preventable illnesses. Take a closer look at some of the latest data for the following Leading Health Indicators:

- **Substance abuse**
- **Social determinants**
- **Oral health**
- **Clinical preventive services**
- **Physical activity, nutrition, and obesity**

Visit Healthy People 2020's Leading Health Indicators for more information on these and other LHI topics.

Substance Abuse

Healthy People 2020 tracks the proportion of the percentage of adults age 18 and over who engaged in binge drinking in the past month, and the proportion of the percentage of adolescents age 12 to 17 who used alcohol or illicit drugs in the past 30 days.

Adults

The percentage of adults age 18 and over who engaged in binge drinking in the past month decreased slightly, from 27.1% in 2008 to 26.7% in 2011.

Females had a lower rate of binge drinking (21.4%) compared to males (32.5%) in 2011.

Among age groups, adults aged 65 years and over had the lowest rate of binge drinking, 9.8%, in 2011. Rates for the other age groups were:

- 21.8% among adults aged 45–64 years, and
- 36.6% among adults aged 18–44 years.

Veterans had a lower rate of binge drinking (22.5%) compared to non-veterans (27.2%) in 2011.

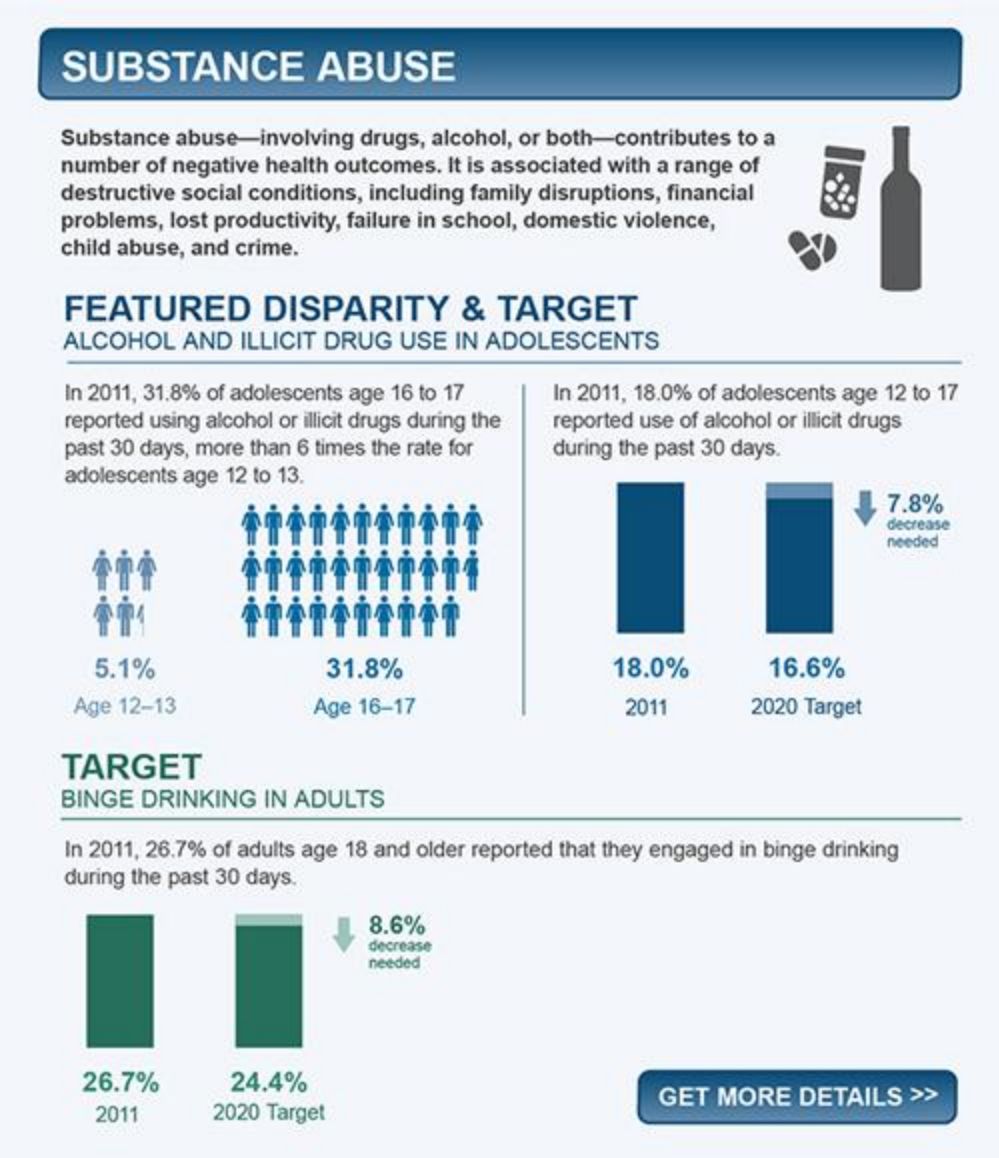
Adolescents

Over the past decade, the percentage of adolescents age 12 to 17 who used alcohol or illicit drugs in the past 30 days decreased by 18.9%, from 22.2% in 2002 to 18.0% in 2011.

Among age groups, the youngest adolescents (12 - 13 years) had the lowest rate of alcohol or illicit drug use, 5.1%, in 2011. Rates for the other age groups generally increase with age:

- 16.0% of adolescents aged 14 to 15 years reported using alcohol or illicit drugs during the past 30 days, more than three times the rate for adolescents aged 12 to 13 years.
- 31.8% of adolescents aged 16 to 17 years reported using alcohol or illicit drugs during the past 30 days, more than six times the rate for adolescents aged 12 to 13 years.

Explore the latest data for the topic Substance Abuse.



Infographics provided courtesy of the Department of Health and Human Services, Office of the Assistant Secretary for Health.

Oral Health

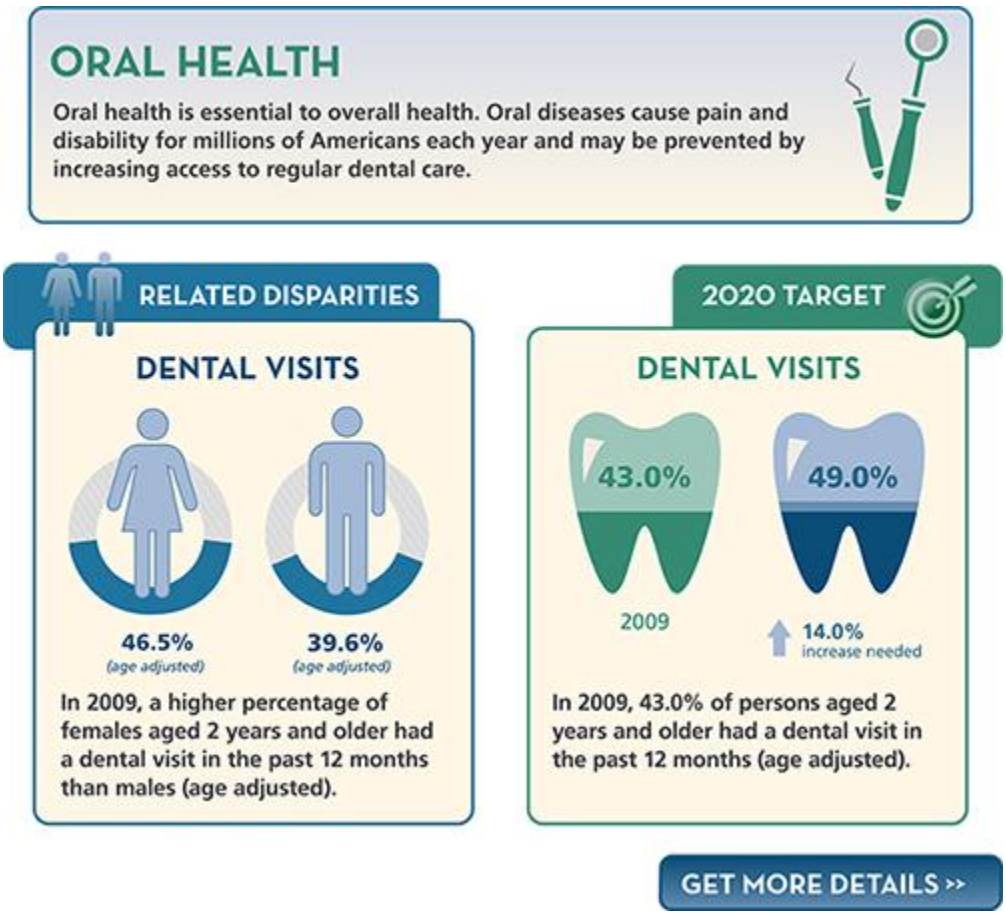
Healthy People 2020 tracks the proportion of children, adolescents, and adults who used the oral health care system in the past year.

In 2009, 43.0% of persons aged 2 years and older had a dental visit in the past 12 months (age adjusted).

Females (46.5%, age adjusted) aged 2 years and over had a higher percentage with a dental visit than males (39.6%) in 2009. When expressed as the proportion of persons without a dental visit in the past year, the percentage for males was nearly 13% higher than that for females.

Persons aged 2 to 17 years had the highest percentage with a dental visit, 50.9%, among broad age groups in 2009.

Explore the latest data for the topic Oral Health.



Infographics provided courtesy of the Department of Health and Human Services, Office of the Assistant Secretary for Health.

Social Determinants

Healthy People 2020 tracks the Averaged Freshman Graduation Rate (AFGR) in public schools. The AFGR is an estimate of on-time high school graduation (or students who graduate with a diploma four years after starting ninth grade.) Education is the Leading Health Indicator for this topic, although many of the Healthy People 2020 objectives address social determinants as a means to improve population health.

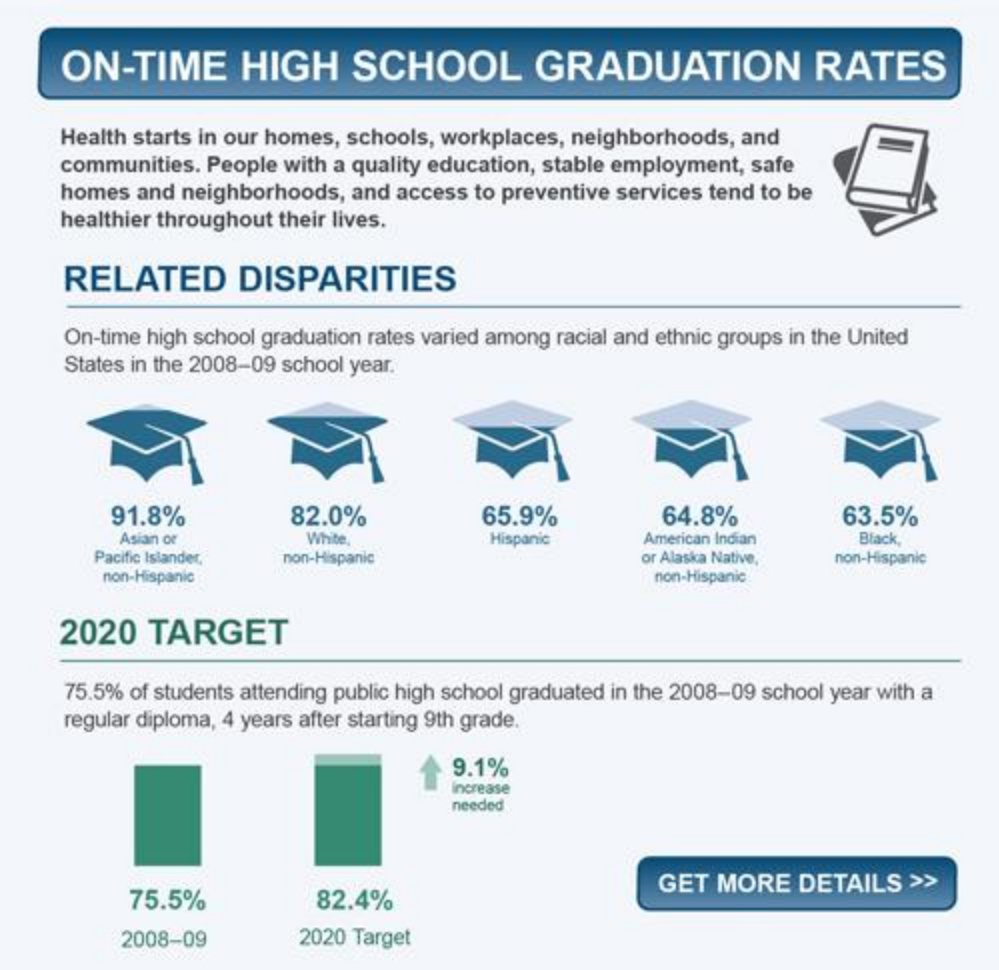
In the 2008–09 school year, 75.5% of students attending public high schools graduated with a regular diploma, 4 years after starting 9th grade.

On-time high school graduation estimates have increased from 72.6% in the 2001–02 school year to 75.5% in the 2008–09 school year.

Among racial and ethnic groups, the Asian or Pacific Islander, non-Hispanic population had the highest (best) rate of on-time high school graduation, 91.8% for the 2008–2009 school year. Rates for other subgroups were:

- White, non-Hispanic: 82.0%
- American Indian or Alaska Native, non-Hispanic: 64.8%
- Hispanic: 65.9%
- Black, non-Hispanic: 63.5%

Explore the latest data for the topic Social Determinants.



Infographics provided courtesy of the Department of Health and Human Services, Office of the Assistant Secretary for Health.

Clinical Preventive Services

Healthy People 2020 tracks several Clinical Preventive Services indicators:

- Colorectal cancer screening - the proportion of adults who have had a blood stool test in the past year, sigmoidoscopy in the past 5 years and blood stool test in the past 3 years, or a colonoscopy in the past 10 years
- Blood pressure control - the proportion of adults with hypertension whose blood pressure is under control (systolic blood pressure <140 mmHg and diastolic blood pressure <90 mmHg)
- Poor glycemic control - the proportion of adults with diagnosed diabetes who have poor glycemic control (HbA1c greater than 9%)
- Fully immunized children - the proportion of children aged 19 to 35 months who received the recommended doses of diphtheria, tetanus, and pertussis (DTaP); polio; measles, mumps, and rubella (MMR); Haemophilus influenzae

type b (Hib); hepatitis B (Hep B); varicella; and pneumococcal conjugate vaccine (PCV) vaccines

Colorectal cancer screening

In 2010, persons aged 50-64 years with private health insurance had the highest rate of colorectal cancer screening based on the most recent guidelines, 61.4% (age adjusted), among insurance groups. Those with public insurance and the uninsured had rates of 55.3% and 21.0% (age adjusted), respectively. When expressed as adults aged 50–64 years not receiving a colorectal cancer screening based on the most recent guidelines, the rate for the uninsured population was about twice that for those with private health insurance.

Blood pressure control

The percentage of adults aged 18 years and over with hypertension who had their blood pressure under control increased by 71% between 1999-00 and 2009-10, from 26.8% to 45.9% (age adjusted).

Persons with diabetes had a higher rate of blood pressure control than persons without diabetes (72.8% versus 42.6%, age adjusted, in 2009-10). When expressed as adults with hypertension whose blood pressure is uncontrolled, the rate for persons without diabetes was more than twice the rate for persons with diabetes.

Persons who were obese had a higher rate of blood pressure control than persons who were not obese (54.7% versus 35.7%, age adjusted, in 2009-10). When expressed as adults with hypertension whose blood pressure is uncontrolled, the rate for persons who were not obese was almost one and a half times the rate for persons who were obese.

Poor glycemic control

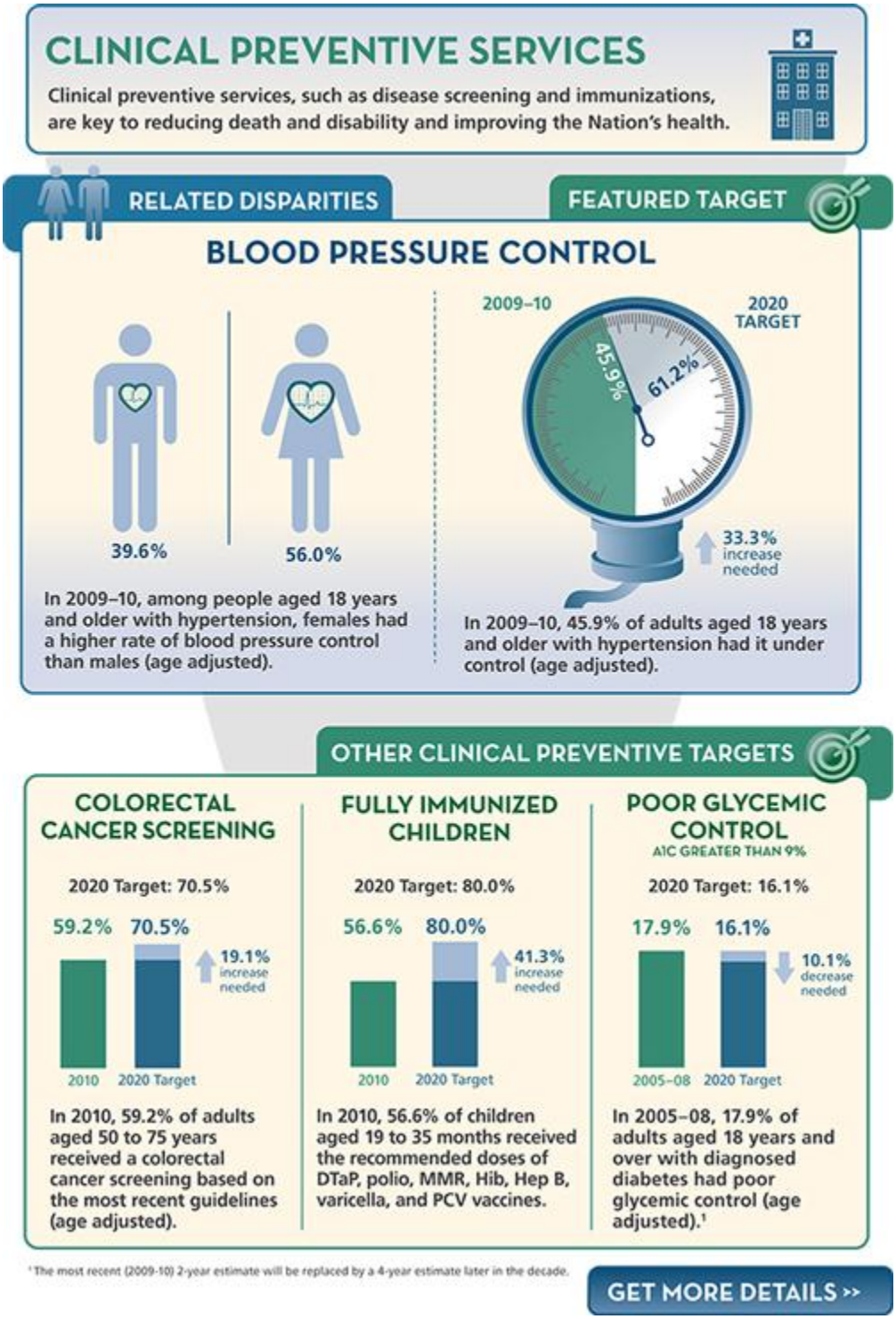
Among racial and ethnic groups with diagnosed diabetes, the white non-Hispanic population had the lowest rate of poor glycemic control, 7.5% of persons aged 18 years and over (age adjusted) in 2009-10, whereas the Hispanic population had a rate of 26.1% (age adjusted). The rate for the Hispanic population was about three and a half times the rate for the white non-Hispanic population.

Fully immunized children

Children of mothers aged 25 years and over with a postgraduate education had the highest rate of complete vaccination (62.7%) among education groups in 2010, while children of mothers with less than a high school education had a rate of 52.2%. When expressed as children not having received the complete vaccination,

the rate for children whose mothers had less than a high school education was 28% higher than that for children of mothers with a postgraduate education.

Explore the [latest data for the topic Clinical Preventive Services](#).



Infographics provided courtesy of the Department of Health and Human Services, Office of the Assistant Secretary for Health.

Physical activity, nutrition, and obesity

Healthy People 2020 tracks the diet, physical activity, and weight of adults, children, and adolescents.

Between 1999–2000 and 2009–2010, the obesity rate increased by 17% among adults age 20 and over from 30.5% (age adjusted) to 35.7%. During this same time period, the obesity rate among children and adolescents age 2 to 19 increased by 22% from 13.9% to 16.9%.

Adults

In 2010, 20.6% of persons aged 18 years and older were engaged in aerobic physical activity of at least moderate intensity for at least 150 minutes/week, or 75 minutes/week of vigorous intensity, or an equivalent combination and performed muscle-strengthening activities on 2 or more days of the week (age adjusted).

The percentage of adults aged 20 years and over who were obese increased by 17% between 1999-00 and 2009-10, from 30.5% to 35.7% (age adjusted). However, over the last decade there has been a slowing in the rise of the obesity rate compared with the prior two decades with no significant change observed between 2007-2008 and 2009-2010.

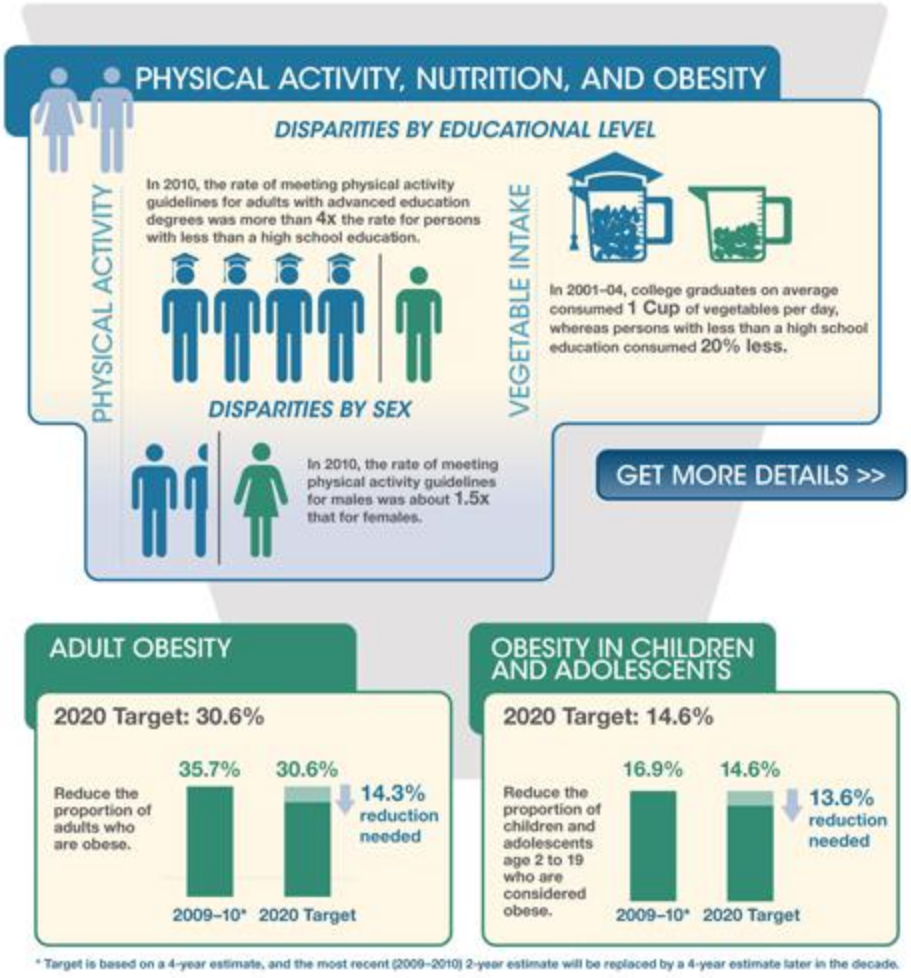
Among insurance groups, persons aged 20-64 years without health insurance had the lowest rate of obesity, 30.8% (age adjusted) in 2009-10. The obesity rate for persons with public insurance, 44.8% (age adjusted), was about one and a half times the best group rate.

Children and Adolescents

The percentage of children and adolescents aged 2 to 19 years who were considered obese increased by nearly 22% between 1999-00 and 2009-10, from 13.9% to 16.9%. However, over the last decade there has been a slowing in the rise of the obesity rate compared with the prior two decades with no significant change observed between 2007-2008 and 2009-2010.

Among racial and ethnic groups, the white non-Hispanic population had the lowest rate of obesity, 14.0% of persons aged 2 to 19 years in 2009-10, whereas the black non-Hispanic and Hispanic populations had rates of 24.3% and 21.2%, respectively. The rate for the black non-Hispanic populations was more than one and a half times the rate for the white non-Hispanic population; the rate for the Hispanic populations was about one and a half times the rate for the white non-Hispanic population.

Explore the latest data for the topic Nutrition, Physical Activity, and Obesity.



Infographics provided courtesy of the Department of Health and Human Services, Office of the Assistant Secretary for Health.