CDC Director Thomas Frieden – 2010 NCHS Keynote Address

Good morning and welcome to this conference where we're celebrating 50 successful years of collection, analysis, and distribution of data by our National Center for Health Statistics. I'm sorry I couldn't be with you in person. Data are the life blood of public health. We need to disseminate new findings and also support innovative collection and application of data. The exhibits and reports presented this week demonstrate what we can accomplish if we have good data, conduct sound analysis, and apply our findings appropriately.

You'll hear more about the state of our Nation's data and statistical systems, and the way we use them to measure health from our other plenary speakers. In the conference sessions there are so many opportunities to learn more about the collection, analysis, and application of health data that it will be hard for you to take in everything over just a couple of days. Data are the basis of everything we do in public health. As Sherlock Holmes noted, "It's a capital mistake to theorize before one has data." At CDC, we strive to have the best available data, so we can fulfill our mission of helping people live longer and healthier lives, but we need to have the right data at the right time to support the right policies.

Data are essential for good decision making – to identify needs, create and implement programs, and evaluate the effectiveness of intervention. Monitoring systems can show us if programs are working. If they are, we can use the data to defend and refine them. If they're not, we can use the data to fix them. With the global financial crisis, we're asked to improve our performance while we cut budgets, and it's even more critical that we have good data for action. We need to do more with less – not only at the federal level but the community level as well, and this increases our need for more community-specific data, as well as innovative ways to collect that data. Increased attention to community needs becomes even more important as public health policy and practice focuses more and more on community-centered action and results.

Information can change the world, but data alone without a proper context is little more than a collection of numbers. An economist once said of a colleague, "He uses data the way a drunk uses a lamp post – more for support than illumination." Perhaps the most valuable thing NCHS does is to supply illumination – the context we need to appropriately understand and apply data so we can improve health and save lives. Bill Foege famously noted that public health is at its best when we see and help others see the faces and lives behind the numbers. While it's critical that we focus on data, we should never lose sight of the reason we do so. Perhaps my most important lesson about the application of proper data came when I was in charge of New York City's tuberculosis control program during the early 1990s. Dr. Karel Styblo asked me a single question that changed my life. He looked at an in-

depth report that we had prepared on the tuberculosis epidemic in New York City. He noticed aspects of it that I had missed, and then he asked me one question. He said, "Dr. Frieden, there's one thing that this report doesn't tell me," and I was very defensive. I said, "I think it's a very comprehensive report, what didn't it say?" He said, "Well, last year you diagnosed 3,882 patients." "Yes." "How many of them did you cure?" I didn't know, I was terribly ashamed, and I realized that although we had lots of data we didn't have the most important information.

As our Nation's principal health statistics agency, NCHS is an integral part of CDC's public health and prevention efforts. NCHS data are critical to public health and are used to guide National policies, set priorities, develop initiatives, and track outcomes. NCHS data cover the most basic vital statistics – birth and death rates – but also many other key indicators such as health insurance coverage, immunization rates, nutrition, and environmental exposures. These data are essential to assess the state of our Nation's health care system by monitoring changes in the delivery and use of health services. We look at and evaluate not only the quality of care, but also the status of health information technology implementation and burdens in health system utilization, such as hospital emergency department use. This helps us improve health care quality and safety, facilitates a greater focus on community-based health and prevention, and allows us to promote and monitor meaningful standards and priorities for health information technology.

NCHS data are used to monitor and improve health behaviors by measuring risk factors and guiding efforts to promote healthy lifestyles. Tobacco use, obesity, and teen pregnancies are just a few of the crucial health behaviors analyzed. NCHS also documents disparities in all facets of health by tapping into its data systems and developing innovative ways to measure disparities and determine their causes and whether and how these causes are changing. NCHS data are also used to improve research methodology – both within and outside government – by advancing research and the science of epidemiology as well as in surveying methods. Surveys that NCHS conducts have become the standard, not only for other surveys here in the U.S., but also throughout the world. And NCHS pioneered data linkage methods to maximize the scientific value of its surveys.

Monitoring and improving data quality are key activities, even down to studying the circumstances of survey interviews to assess response bias. NCHS tracks the use of cell phones and has worked to ensure the accuracy of surveys even as an increasing proportion of Americans have only cell phones in their possession.

The new NCHS Health Indicators Warehouse is an exciting initiative. This project, which goes live later this year, will provide a single user-friendly source for National, State, and community health indicators that can be accessed by anyone

interested in population health issues. The warehouse will facilitate harmonization of indicators across different initiatives and link indicators with evidence-based intervention to improve health. The warehouse will also serve as the data hub for the HHS community data initiative – a flagship open government program to release data, encourage innovative application development, and catalyze change to improve community health. The first data release will include indicators for several projects including Healthy People 2020, Community Health Status Indicators, Community Health Rankings, new community-level indicators for Medicare, and State of the USA. The warehouse represents our deep and abiding commitment to transparency and openness of data and our recognition that data the government collects belongs not to any individual or group of researchers, either in government or outside of government, but to the people of the United States.

At CDC, we're focusing our efforts on what we call winnable battles. These are areas that address some of our Nation's leading causes of illness, injury, disability, and death. Tobacco control, nutrition, obesity, food safety, and physical activity. Health care associated infections, motor vehicle injury prevention, teen and unintended pregnancy prevention, and HIV prevention. In each case there are evidence-based scalable interventions that can be implemented today. These are areas where our efforts can save lives and also save money. And, although it won't be easy, where we can get results within one to four years. And in each of these areas NCHS data will be critical to evaluate our efforts and ensure that we're having the impact we need to greatly reduce the burden of preventable illness and death.

Over the next two days, you'll also hear a lot about the role of NCHS as we implement health reform. The Affordable Care Act has many provisions that affect CDC. Ed Sondik will go into detail about provisions that specifically affect NCHS. Let me talk about how this affects CDC overall. Prevention is the best buy in the health sector. Our greatest gains in the past century have come from public health investments. The Affordable Care Act is a rare opportunity to strengthen public health and expand proven interventions to allow Americans to live in communities that protect their health, prepare for health threats, provide access to prevention services, and foster wellness.

As we strengthen and expand existing programs and implement new ones, we'll depend on NCHS to help track changes in health status and use of services. In this fiscal year, 500 million dollars has been allocated to public health programs, and this will increase to up to 2 billion dollars per year in the coming years. This will facilitate the creation of new partnerships and present new opportunities to improve health. In this fiscal year, we've included important enhancements to our surveys that monitor the quality of prevention in health care. Currently, many health information systems are not aligned with prevention as a goal. Many systems aren't

standardized. By more accurately defining what we look at and focusing more on outcomes, we'll be able to maximize the health value of our health dollars. One important provision of the Affordable Care Act is the creation of the National Prevention Health Promotion and Public Health Council and development of the National Prevention and Health Promotion Strategy. This presents an opportunity to bring prevention and wellness to the forefront of this country's efforts to improve health. The CDC will have a significant role in drafting the strategy, and will use NCHS data to conduct analysis on the leading causes of death and disability and the factors that underlie these causes – including tobacco use, obesity, poor nutrition, physical inactivity, and unhealthy alcohol use – to make recommendations for the strategy.

As we look to the future, the continued exponential growth in computer data storage and processing power will make our work both easier and more challenging. Computers allow us to do in an hour the number crunching that used to take weeks, but computers don't replace critical thinking. In fact, thoughtful focused analysis may get lost in the deluge of data points that we now have available. Albert Einstein once said that "Data is not information, information is not knowledge, and knowledge is not understanding." But ultimately, everything we do comes down to the data. Without the right data we can't progress the knowledge to understanding and most importantly to effective action.

Thank you again for this opportunity to speak with you today. Although I can't be with you in person, I'm definitely there with you in spirit, and I look forward to reviewing the proceedings and studying many of the reports presented. Have a wonderful and productive conference.