# Health, United States, 2009 In Brief—Medical Technology

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES Centers for Disease Control and Prevention National Center for Health Statistics



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### **Suggested citation**

National Center for Health Statistics. Health, United States, 2009: In Brief—Medical Technology. Hyattsville, MD. 2010.

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### **INTRODUCTION**

Monitoring the health of the American people is an essential step in making sound health policy and setting research and program priorities. In a Chartbook and 150 detailed tables, *Health, United States* provides an annual picture of the health of the entire Nation. *Health, United States, 2009*, which includes a special feature on medical technology, is the 33rd report on the health status of the Nation and was submitted by the Secretary of the Department of Health and Human Services to the President and the Congress of the United States in compliance with Section 308 of the Public Health Service Act. This report was compiled by the Centers for Disease Control and Prevention's (CDC) National Center for Health Statistics (NCHS).

Health, United States, 2009: In Brief—Medical Technology is a companion piece to the full Health, United States, 2009 report. This short report presents excerpts from the full report. It includes a history of medical technology that provides examples of selected key health care technologies developed in the past two centuries that have greatly influenced medical practice and health outcomes. It also includes charts with brief related text, all extracted from the Medical Technology section of the full report. Each topic highlighted in this *In Brief* is presented in greater detail in the full report. References, and data tables with estimates and their standard errors, are provided in the full report only.

Medical technology improves the ability to monitor, prevent, diagnose, control, and cure a growing number of health conditions. Medical technology can be defined as the application of science to develop solutions to health problems or issues, such as the prevention or delay of onset of disease, or the promotion and monitoring of good health. Examples of medical technology include medical and surgical procedures (angioplasty, joint replacements, organ transplants), diagnostic tests (laboratory tests, biopsies, imaging), drugs (biologic agents, pharmaceuticals, vaccines), medical devices (implantable defibrillators, stents, prosthetics), and new support systems (electronic medical records and telemedicine). As advances in medical technologies continue to transform the provision of health care and improve the length and quality of life, questions are raised about their appropriate and equitable use and how to best control their contributions to rising health care expenditures.

The full report—*Health, United States, 2009: With Special Feature on Medical Technology*—is available at: http://www.cdc.gov/nchs/hus.htm. On this website, users can find

- The full searchable 2009 report in Adobe PDF format, consisting of a Preface, Executive Summary and Highlights, Chartbook with 36 charts including the Special Feature on Medical Technology, 150 detailed Trend Tables, Data Sources, Methods, and an Index.
- Chartbook and Trend Tables available as downloadable Excel<sup>®</sup> spreadsheet files.
- Additional years of data for selected Trend Tables.
- Standard errors for selected estimates.
- Charts in PowerPoint<sup>®</sup> format.
- Previous editions, starting with *Health, United States,* 1975.
- Groups of charts and tables on specific topics, such as older adults, racial and ethnic groups, and state data.

### History of medical technology: Selected milestones, 1816–2008

1816 – Stethoscope invented.	
1818 – First successful human blood transfusion.	
1842 – First surgical operation using anesthesia with ether.	
<ul> <li>1851 – Ophthalmoscope invented.</li> <li>1852 – Hypodermic syringe with plunger invented.</li> </ul>	
1855 – Laryngoscope invented.	
1879 – First vaccine for cholera.	
<ul> <li>1895 – First documented medical use of x-rays in medical imaging.</li> <li>1896 – Sphygmomanometer (mercury-based blood pressure meter) invented.</li> </ul>	
1899 - First commercial bottle of aspirin sold.	
1901 – First electrocardiograph (ECG or EKG) machine.	
1920 Band-Aid invented.	
<ul> <li>1922 – Insulin first used to treat diabetes.</li> <li>1923 – First vaccine for diphtheria produced.</li> <li>1924 – First vaccine for tetanus produced. First human electroencephalogram (EEG) performed</li> </ul>	
<ul> <li>1927 – First practical modern respirator ("iron lung") invented.</li> <li>1928 – Penicillin's antibacterial qualities discovered (first patient treated with penicillin in 1942).</li> </ul>	
<ul> <li>1942 — Pap test landmark article published that began dissemination of test into medical practice</li> <li>1943 — First electron linear accelerator designed for radiation therapy developed.</li> </ul>	Э.
1945 - First practical human hemodialysis machine developed.	
<ul> <li>1947 - First stereotactic devices for human neurosurgery invented.</li> <li>1948 - Plastic contact lens developed.</li> <li>1949 - First implant of intraocular lens.</li> </ul>	
1951 – Tylenol (acetaminophen) approved by U.S. Food and Drug Administration (FDA).	
1953 – Heart/lung bypass machine first used in surgery on humans.	
1955 Ultrasound first used on pregnant women. First polio vaccine (Salk) used on children.	
<ul> <li>1958 – First cardiac pacemaker implanted. Artificial heart valve (modern prototype) developed.</li> <li>1959 – First kidney transplant with survival more than 1 year.</li> </ul>	

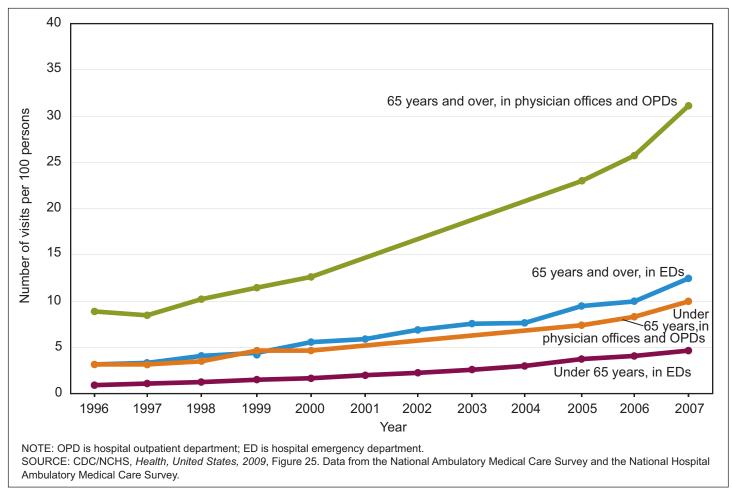
SOURCE: Health, United States, 2009, Figure 23.

### History of medical technology: Selected milestones, 1816–2008—Con.

1962 1963 1964 1965	<ul> <li>First hip replacement using a metal femoral head (hip joint) placed within a polyethylene acetabular cup (hip socket).</li> <li>First oral polio vaccine (Sabin) distributed.</li> <li>First vaccine for measles. First coronary bypass surgery.</li> <li>First portable defibrillator installed. First dedicated mammography unit developed. First hospital neonatal intensive care unit (NICU) established.</li> </ul>
1967 1968	<ul> <li>First human-to-human heart transplant.</li> <li>Amniocentesis first used to diagnose Down syndrome in unborn fetus.</li> </ul>
1972 1973	<ul> <li>Computed axial tomography (CAT) scan for brain invented.</li> <li>First whole-body CAT scan invented.</li> </ul>
1975	-First recorded positron emission tomography (PET) image.
1977 1978	<ul> <li>First image of a human in a whole-body magnetic resonance imaging (MRI) scanner.</li> <li>First in vitro fertilized (IVF) "test tube" baby born. First cochlear implant surgery.</li> </ul>
1982 1983	<ul> <li>First permanent artificial heart implant. First biotechnology drug—Humulin, a form of human insulin derived from recombinant DNA—approved by FDA.</li> <li>Cyclosporine approved by FDA.</li> </ul>
1985	<ul> <li>Implantable cardioverter defibrillator (ICD) approved by FDA.</li> </ul>
1987	-First laser surgery on a human cornea. First laparoscopic cholecystectomy using video technique. First cholesterol-lowering statin drug, lovestatin (Mevacor), approved by FDA. First selective serotonin reuptake inhibitor (SSRI), fluoxetine (Prozac), approved by FDA. First antiretroviral (ARV) drug, zidovudine (AZT), approved by FDA.
1989	-First proton-pump inhibitor, omeprazole (Prilosec), approved by FDA.
1992	-Prostate-specific antigen (PSA) test approved by FDA.
1995	Lasik eye surgery approved by FDA. First protease inhibitor, saquinavir, approved by FDA, ushering in the era of highly active antiretroviral therapy (HAART) for HIV disease.
2000	<ul> <li>First robotic system for general laparoscopic surgery approved by FDA. First PET/CT hybrid scanner commercially available.</li> </ul>
2003 2004	<ul> <li>Drug-eluting stent for clogged arteries approved by FDA.</li> <li>64-Slice CT scanner approved by FDA.</li> </ul>
2006	-First vaccine for human papillomavirus (HPV) to protect against cervical cancer approved by FDA.
2008	-Commercial hybrid PET/MRI scanner produced.

### **SELECTED IMAGING TECHNOLOGIES**

## Ambulatory care visits with MRI/CT/PET scans ordered or provided during the visit, by age and location of care: United States, 1996–2007

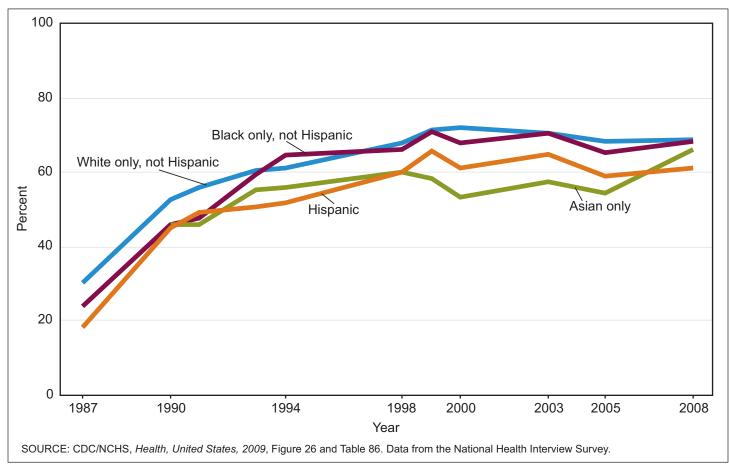


The use of MRI/CT/PET scans in physician offices and hospital outpatient and emergency department settings has increased over the past decade.

Advanced imaging technologies offer the physician sophisticated tools for diagnosing and monitoring the status of a wide array of medical conditions. Advanced diagnostic medical imaging includes such technologies as computed tomography (CT), magnetic resonance imaging (MRI), and positron emission tomography (PET). Data from the National Ambulatory Medical Care Survey and the National Hospital Ambulatory Medical Care Survey were analyzed for 1996-2007 to examine trends in the ordering or provision of advanced imaging (CT, MRI, and PET scans). Advanced imaging scan rates during visits to physician offices and hospital outpatient department (OPD) visits more than tripled from 1996 to 2007 among persons under 65 years of age and among persons 65 years of age and over (to 10 and 31 visits per 100 persons, respectively). Between 1996 and 2007, the use of advanced imaging during emergency department visits increased fivefold among adults under 65 years of age and quadrupled among adults 65 years of age and over (to 5 and 13 visits per 100 persons, respectively).

### MAMMOGRAPHY

## Use of mammography within the past 2 years among women 40 years of age and over, by race and Hispanic origin: United States, 1987–2008

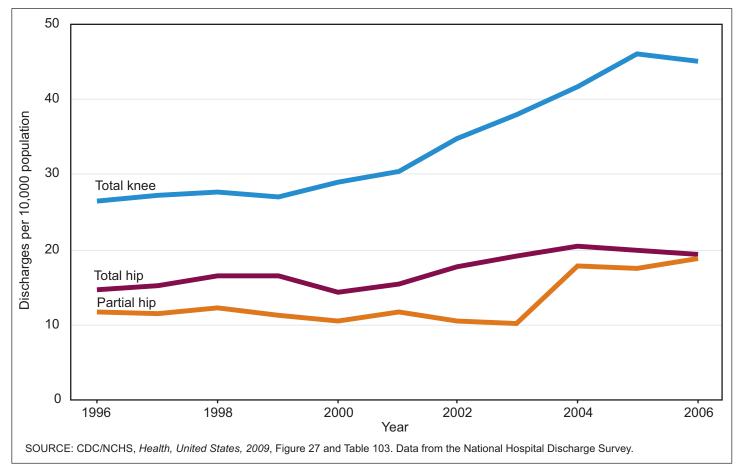


Between 1987 and 1999, recent mammography use among women 40 years of age and over more than doubled but decreased slightly between 1999 and 2008.

Since the 1960s, technical developments in mammography have resulted in greater sensitivity and specificity in cancer detection and decreases in radiation exposure. Without mammography screening, many breast cancers would not be diagnosed until at least 1 year later. The percentage of women 40 years of age and over who had a mammogram in the past 2 years more than doubled, increasing from 29% in 1987 to 70% in 1999; between 1999 and 2008, the percentage decreased to 68%. Between 1987 and 1991, compared with other racial and ethnic groups, non-Hispanic white women had the highest recent mammography rates. Starting in 1993, mammography rates among non-Hispanic black and non-Hispanic white women have been similar. In 2008, the percentage of non-Hispanic black and non-Hispanic white women with recent mammograms was higher than for Hispanic women.

### JOINT REPLACEMENT PROCEDURES

Discharges with at least one knee or hip replacement procedure in nonfederal short-stay hospitals among adults 45 years of age and over, by type of procedure: United States, 1996–2006

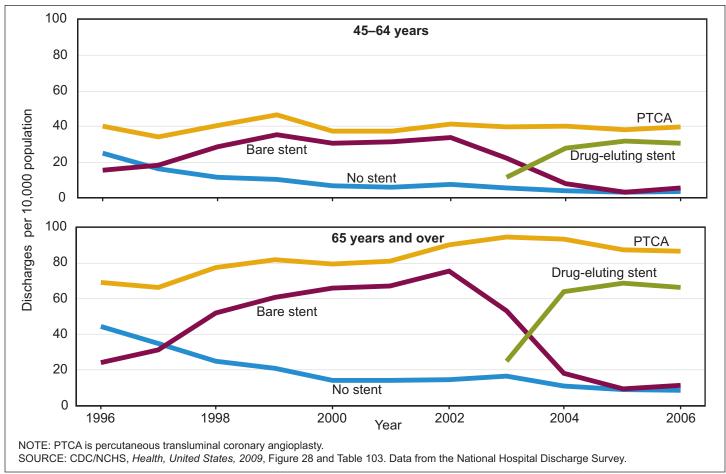


The hospital discharge rate for total hip replacement increased by one-third, and the discharge rate for knee replacement increased by 70%, from 1996 to 2006.

Hip and knee joint replacements are among the most commonly performed and clinically successful surgical procedures in the United States. The most common reasons for knee and hip replacement procedures are pain and decreased mobility from osteoarthritis. With one-third of Americans obese and an aging population, the prevalence of osteoarthritis is expected to increase, contributing to a growing demand for joint replacement procedures. From 1996 to 2006, total hip replacement discharges increased by one-third (to 19 per 10,000 population), partial hip replacements increased by 60% (to 19 per 10,000 population), and total knee replacement discharges increased by 70% (to 45 per 10,000 population). As with hip replacement procedures, knee replacement discharge rates were more than three times as high for those 65 years of age and over (84 per 10,000), compared with those 45-64 years of age (26 per 10,000).

### ANGIOPLASTY AND CORONARY STENTING PROCEDURES

## Hospital discharges with a PTCA procedure among persons 45 years of age and over, by type of procedure and age: United States, 1996–2006



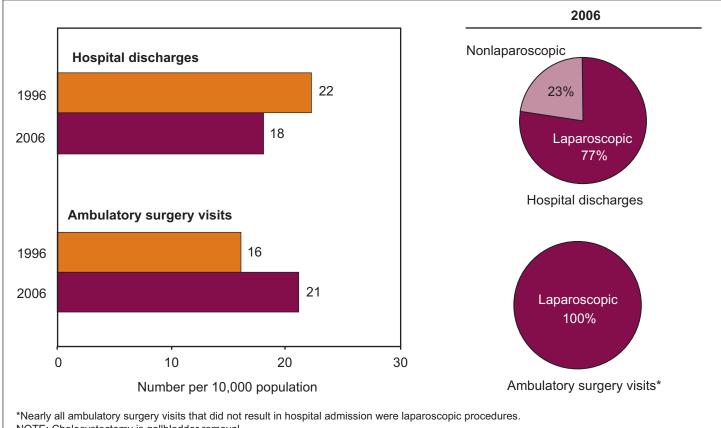
Since their introduction in 2003, drug-eluting stents have displaced non-drug-eluting stents and are used in threequarters of angioplasty discharges.

Percutaneous transluminal coronary angioplasty (PTCA), more commonly called angioplasty, was first introduced about 30 years ago. In PTCA, narrowed (or stenotic) arteries are treated to improve blood flow and reduce blockage. Since then, additional modifications, including the introduction of stents, have improved the procedure. First introduced in the 1980s, stents are mesh-like devices that are inserted into the artery during PTCA to expand the artery and prevent restenosis (recurrent plaque development). One complication of early stents was clotting (thrombosis) at the site of the stent. To address this complication, drug-eluting stents were approved in 2003. Drug-eluting stents release short-term medication to reduce the risk of clotting and have been found to be better than bare stents at preventing restenosis and, consequently, the need for revascularization.

Between 1996 and 2006, the rate of discharges with any PTCA procedure among persons 45 years of age and over was fairly steady, while the rate for PTCA discharges without a stent declined by 84% (to 5 per 10,000 population). In 1996, almost two-thirds of PTCA discharges among persons 45 years of age and over did not include stent insertion, but by 2006 less than one-tenth of discharges had no type of stent. Further, there was swift adoption of the drug-eluting stent, replacing the insertion of a bare stent. In 2002, the year before the first drug-eluting stent was approved, 82% of PTCA discharges among person 45 years of age and over had a bare stent inserted. In 2004, the year after drug-eluting stents were approved, 69% of PTCA discharges had a drug-eluting stent inserted.

### **CHOLECYSTECTOMY PROCEDURES**

## Cholecystectomy procedures among adults 18 years of age and over, by location of care and type of procedure: United States, 1996 and 2006



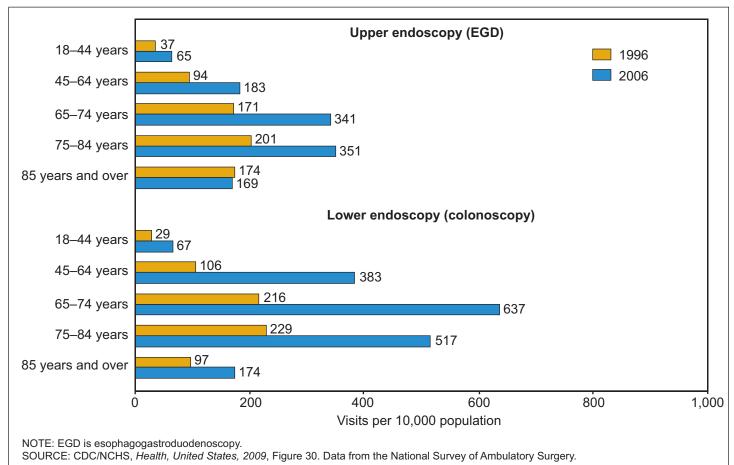
NOTE: Cholecystectomy is gallbladder removal. SOURCE: CDC/NCHS, *Health, United States, 2009*, Figures 29 A and B and Table 103. Data from the National Hospital Discharge Survey and the National Survey of Ambulatory Surgery.

### In 2006, laparoscopic procedures accounted for almost all ambulatory surgery visits for cholecystectomy and about three-quarters of hospital discharges for cholecystectomy.

Cholecystectomy—removal of the gallbladder—is one of the most commonly performed procedures in the United States. Cholecystectomy may be performed because of cancer of the gallbladder or, more commonly, because of symptoms from gallstones. Laparoscopic cholecystectomy was introduced in the late 1980s and quickly became the standard of care for patients with symptomatic gallstones. In the laparoscopic procedure, the gallbladder is removed through small incisions in the abdomen, rather than the larger incision used in traditional, or open, cholecystectomy.

Between 1996 and 2006, there was a shift in cholecystectomy procedures from inpatient to outpatient settings. The hospital discharge rate among adults 18 years of age and over with cholecystectomy procedures in hospitals declined about 20% from 1996 (22 discharges per 10,000 population) to 2006 (18 per 10,000), while ambulatory surgery procedure visits increased more than 30%, from 16 visits per 10,000 population in 1996 to 21 per 10,000 in 2006. In both 1996 and 2006, almost all of the cholecystectomy visits in ambulatory surgery centers were for laparoscopic procedures. The proportion of adult hospital discharges that were laparoscopic increased from about 70% of discharges in 1996 to 77% in 2006.

## Ambulatory surgery visits for upper endoscopy or colonoscopy procedures among adults 18 years of age and over, by age: United States, 1996 and 2006



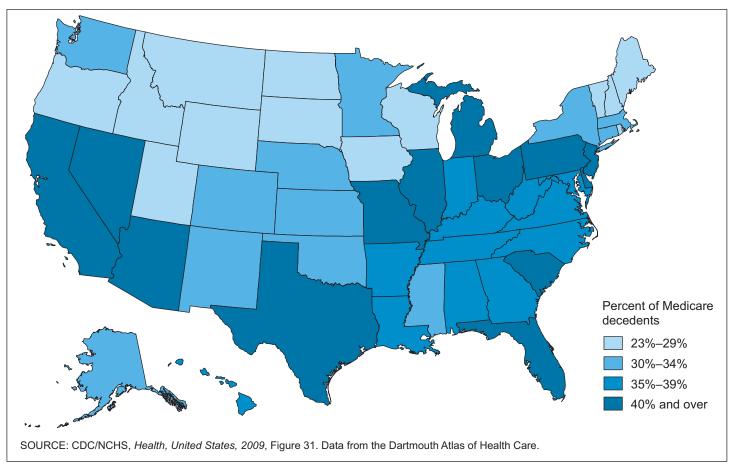
### Between 1996 and 2006, outpatient upper endoscopy and colonoscopy rates increased, while inpatient rates remained unchanged.

Medical technology has affected the diagnosis and treatment of a wide variety of gastrointestinal (GI) diseases and conditions through the development of endoscopic procedures. During an upper endoscopy (or esophagogastroduodenoscopy (EGD)) procedure, an image of the esophagus, stomach, and duodenum (the first part of the small intestine) is transmitted via a thin, flexible, lighted tube called an endoscope. The procedure can be used to diagnose upper gastrointestinal conditions such as gastroesophageal reflux disease (GERD). Colonoscopy is a lower endoscopy procedure used to see inside the colon and rectum. Colonoscopy can be used to diagnose lower GI conditions and diseases, in addition to screening for colon cancer. The U.S. Preventive Services Task Force strongly recommends colorectal cancer screening for men and women 50-75 years of age (for individuals without high-risk intestinal conditions), and colonoscopy is one of the recommended screening methods.

Between 1996 and 2006, outpatient EGD visit rates per 10,000 population increased for all age groups of adults 18–84 years of age and remained stable among adults 85 years of age and over. Outpatient colonoscopy visit rates tripled overall among adults 18 years of age and over (to 249 per 10,000 population) and increased in each age group. In 2006, outpatient colonoscopy procedure rates among adults increased with age until ages 65–74 and then declined.

### **USE OF INTENSIVE CARE UNITS IN THE LAST 6 MONTHS OF LIFE**

Medicare decedents 65 years of age and over with an ICU/CCU stay in the last 6 months of life, by state: United States, 2005



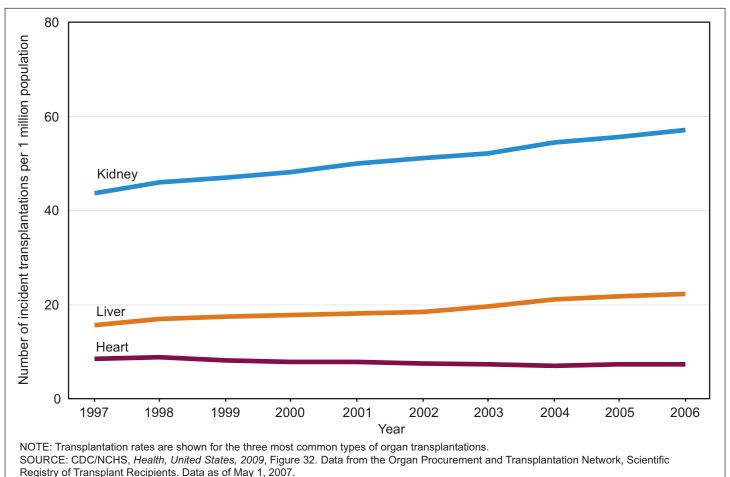
In 2005, use of intensive care units in the last 6 months of life among Medicare decedents ranged from 23% of Medicare decedents in Vermont and North Dakota to 49% in New Jersey and Florida.

Intensive care units (ICUs), which include specialized units such as medical, surgical, or coronary care units, are defined by the American Hospital Association as separate units of a hospital that provide services of a more intensive nature than usual medical and surgical care, on the basis of physician's orders and approved nursing care plans. Units are staffed with specially trained personnel and contain monitoring and specialized support equipment for patients who require intensified, comprehensive observation and care. Because ICUs are technology- and resource-intensive, they are more costly than routine hospital care. The Dartmouth Atlas Group has created a database that allows examination of geographic variation in the use of ICU/CCU services in the last 6 months of life among Medicare decedents. This analysis was limited to those 65-99 years of age. ICU/CCU care includes care provided in medical, surgical, trauma, burn, or other types of critical care units.

Nationwide, 39% of older Medicare decedents had an ICU/ CCU stay in the last 6 months of life. The percentage of older Medicare decedents admitted to an ICU/CCU in their last 6 months of life varied from 23% in Vermont and North Dakota to 49% in New Jersey and Florida.

### SOLID ORGAN TRANSPLANTATION

### Selected solid organ transplantation, by type of organ: United States, 1997–2006



Between 1997 and 2006, the number of new kidney and liver transplantations per 1 million population increased,

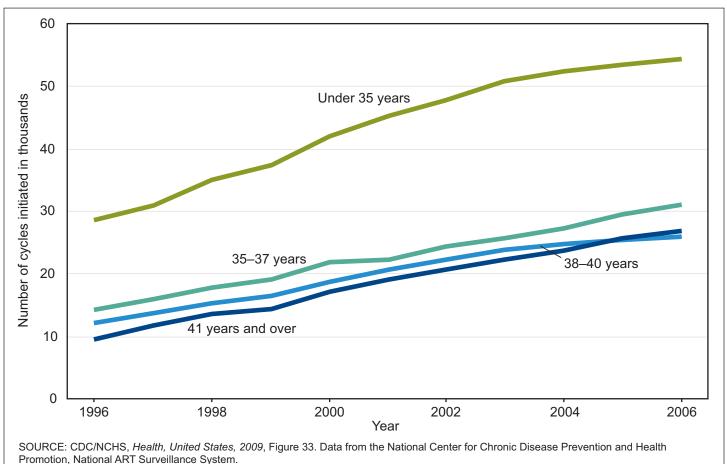
while heart transplantations decreased.

Numerous technological advances have occurred in the field of organ transplantation. Despite these advances, the gap between the limited supply of donated organs and the burgeoning waiting lists continues to widen every year.

In 2006, there were approximately 28,000 solid organ transplantations in the United States, an increase from 20,000 in 1997. Between 1997 and 2006, the rate of kidney transplantation increased 31% (to 57 per 1 million population). In 2006, there were 16,600 new kidney transplantations, accounting for 59% of all solid organ transplantations. Nearly 40% of kidney transplantations were from living donors in 2006. The rate of liver transplantation increased 42% during this same period (to 22 per 1 million population). Between 1997 and 2004, the rate of heart transplantation declined 20% and then increased slightly in the next 2 years (to 7 per 1 million population). In 2006, heart transplantation was the third most common form of solid organ transplantation, accounting for 8% (2,100) of all solid organ transplantations. The number of patients awaiting a heart transplantation has decreased steeply since 2000, likely reflecting improvements in medical therapy that have reduced the need for transplantation.

### **ASSISTED REPRODUCTIVE TECHNOLOGY**

Assisted reproductive technology (ART) cycles initiated among women, by age: United States, 1996–2006

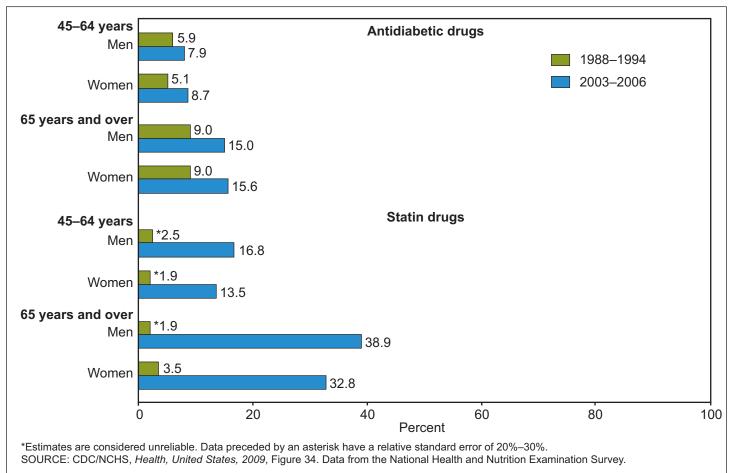


### Between 1996 and 2006, the number of assisted reproductive technology cycles more than doubled and increased at the fastest rate among women over age 40.

Since 1978, assisted reproductive technology (ART) procedures have been used in the United States to overcome infertility. The CDC definition of ART includes fertility treatments in which both eggs and sperm are handled in the laboratory for the purpose of establishing a pregnancy and excludes artificial (intrauterine) insemination or the use of fertility drugs without egg retrieval. ART involves surgically removing eggs from a woman's ovaries, combining them with sperm in the laboratory, and returning them to the woman's body or donating them to another woman. ART procedures are described in terms of cycles because ART services are performed in a series of several steps over an interval of 2 weeks. A woman may have multiple cycles of treatment in 1 year. Types of ART treatment include in vitro fertilization, gamete intrafallopian transfer, and zygote intrafallopian transfer. In 2006, over 99% of all ART procedure cycles were in vitro fertilization treatments.

The total number of ART cycles initiated doubled from 1996 to 2006, to 138,000. In 2006, 39% of ART cycles were initiated among women under 35 years of age, another 41% among women 35–40 years, and 19% among women 41 years of age and over. The growth in the number of ART cycles in women over age 40 increased at a faster rate on average (11% per year) between 1996 and 2006 than the number of cycles in women age 35–40 years (8% per year), and those under 35 years (7% per year).

## Adults 45 years of age and over reporting prescription drug use in the past month for selected drug categories, by age and sex: United States, 1988–1994 and 2003–2006



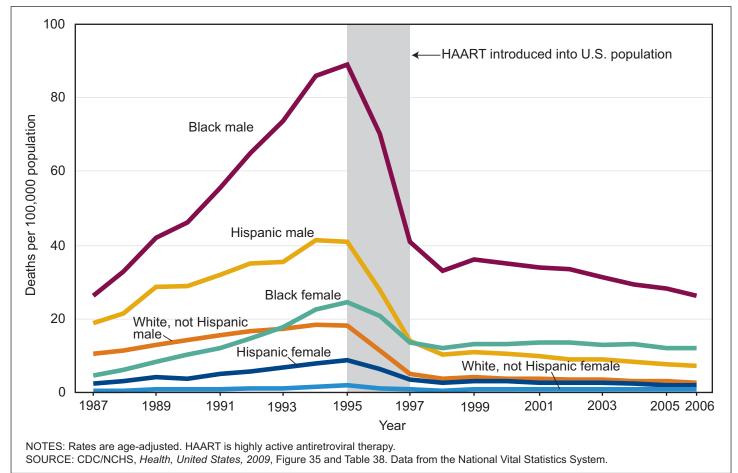
# The use of statin drugs increased almost 10-fold from 1988–1994 to 2003–2006. During the same time period, the use of antidiabetic drugs increased by 50%.

Some of the most important medical advances have been the development and introduction of pharmacological treatments. Two important classes of drugs—antidiabetics and cholesterol-lowering statins—have continued this pattern of technological advancement. The key drug treatment for Type 1 diabetes is the use of insulin. Persons with Type 2 diabetes are often treated with oral antidiabetic medications and, in some cases, with insulin. The use of antidiabetic drugs by adults 45 years of age and over increased from 7% in 1988–1994 to 11% in 2003–2006. In 2003–2006, adults 65 years and over were significantly more likely to take antidiabetic drugs than adults 45–64 years, reflecting differences in diabetes rates by age.

Statin drugs lower cholesterol levels significantly, and studies have demonstrated that statin therapy reduces the incidence of coronary artery disease and death from heart disease. From 1988–1994 to 2003–2006, the use of statin drugs by adults 45 years of age and over increased almost 10-fold, from 2% to 22%. There was a concurrent decline in the percentage of Americans with high cholesterol over this time period, largely attributable to increased use of cholesterol-lowering medications, especially statins.

### HIGHLY ACTIVE ANTIRETROVIRAL THERAPY

## Death rates for human immunodeficiency virus (HIV) disease for all ages, by sex and race and Hispanic origin: United States, 1987–2006



The introduction of highly active antiretroviral therapy led to substantial declines in mortality from HIV disease, including a 65% decline in HIV disease mortality among males from 1995 to 1997.

The health of individuals living with HIV improved dramatically when clinicians began to treat individuals with a combination of three or more antiretroviral drugs that act at different stages of the HIV life cycle. These regimens of proven combinations of drugs are known as highly active antiretroviral therapy (HAART). The success of HAART is demonstrated by the sharp decline in death rates from HIV disease after HAART's adoption as the standard of care in 1996. From 1987 to 1995 (pre-HAART), HIV mortality increased sharply. From 1995 (pre-HAART) to 1997 (widespread HAART use), the age-adjusted death rate from HIV disease among males declined by two-thirds, from 27.3 deaths per 100,000 population in 1995 to 9.6 per 100,000 in 1997. Declines in HIV death rates were also observed for females and for all racial and ethnic groups. After 1997, the rate of decline for HIV mortality slowed

across all groups. In 2006, gender and racial and ethnic differences in HIV mortality persisted.

### **COSTS FOR HOSPITALIZATIONS WITH PROCEDURES**

18 Respiratory intubation and mechanical ventilation 16 14 Percutaneous transluminal Amount in billions (2006 dollars) coronary angioplasty (PTCA) 12 10 Coronary artery bypass graft (CABG) 8 Cardiac pacemaker, cardioverter, defibrillator Knee arthroplasty 6 4 Spinal fusion 2 0 2000 2001 2002 2003 2004 2005 1999 2006 Year NOTES: The six most expensive principal procedures were selected based on aggregate national hospital costs in 2006. Costs were for the entire hospital stay, not just the cost of performing the principal procedure. SOURCE: CDC/NCHS, Health, United States, 2009, Table 36. Data from the Agency for Healthcare Research and Quality, Healthcare Cost &

Costs for hospital stays with the six most expensive principal procedures: United States, 1999–2006

Aggregate national costs adjusted for inflation for hospitalizations with five of the six most costly hospital procedures have increased since 1999.

Utilization Project.

Advances in technology contribute to overall health care costs and expenditures. In 2007, \$697 billion was spent for care in hospitals—where the most complex procedures are performed and the most complex technologies used representing 37% of personal health care expenditures in that year. In 2006, almost two-thirds of hospital discharges among adults had at least one procedure performed during the stay, and almost all procedures require some type of medical technology.

The principal procedure contributing the most to national hospital costs in 2006 was respiratory intubation and mechanical ventilation. The next three most expensive principal procedures are all cardiac-related. The number of hospital discharges with percutaneous transluminal coronary angioplasty (PTCA) as the principal procedure have increased steadily since 1999, to 828,000, and inflation-adjusted national hospital costs associated with PTCA discharges increased 108% to \$13.3 billion. In contrast, hospitalizations with coronary arterty bypass graft (CABG) as the principal procedure decreased by 24%, to 245,000. However, aggregrate costs for CABG hospitalizations declined only by 3%, to \$8.1 billion.

### Chartbook Figures in Health, United States, 2009

The 2009 Chartbook includes 36 charts, with 14 charts on this year's special feature, Medical Technology. As advances in medical technologies continue to transform the provision of health care and improve the length and quality of life, questions are raised about their appropriate and equitable use and how to best control their contribution to rising health care expenditures. The Chartbook assesses the Nation's health by presenting trends and current information on selected determinants and measures of health status and the utilization of health care. Many measures are shown separately for persons of different ages because of the strong effect of age on health. Selected figures also highlight differences in determinants and measures of health status and utilization of health care by such characteristics as sex, race, Hispanic origin, education, and poverty level.

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- Overweight and obesity
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#### Morbidity and Limitation of Activity: Figures 10–15

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- Infant mortality
- Death rates for leading causes

#### Health Insurance and Expenditures: Figures 19–22

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- Personal health care expenditures

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- MRI/CT/PET scans
- Mammography
- Knee and hip replacements
- Coronary stenting
- Gallbladder removal
- Endoscopy and colonoscopy
- ICU/CCU use in last 6 months of life
- Organ transplantation
- Assisted reproductive technology
- Prescription drug use
- HIV mortality
- Hospital costs

### Trend Tables in Health, United States, 2009

The Chartbook section is followed by 150 Trend Tables organized around four major subject areas: health status and determinants, health care utilization, health care resources, and health care expenditures. A key criterion used in selecting the Trend Tables is the availability of comparable national data over a period of several years. The tables present data for selected years, to highlight major trends in health statistics. Earlier editions of *Health, United States* may present data for additional years that are not included in the current printed report. Where possible, these additional years of data are available in Excel<sup>®</sup> spreadsheet files on the *Health, United States* website. Tables with additional data years available are listed in Appendix III.

### **Health Status and Determinants**

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- Uninsured

### State Health Expenditures and Health Insurance: Tables 148–150

- Medicaid
- Medicare
- Per capita health expenditures
- Uninsured



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