## Chartpack

## National Scorecard on U.S. Health System Performance, 2011

This Chartpack presents data for all indicators scored in the National Scorecard on U.S. Health System Performance, 2011. Charts display average performance for the United States as a whole and the range of performance found within the U.S. or compared with other countries.

## Scores: Dimensions of a High Performance Health System



* Note: Includes indicator(s) not available in earlier years.


## SECTION 1. HEALTHY LIVES

Scored Indicators:

1. Mortality amenable to health care
2. Infant mortality
3. Healthy life expectancy at age $\mathbf{6 0}$
4. Adults ages $\mathbf{1 8} \mathbf{- 6 4}$ limited in any activities because of health problems
5. Children ages $\mathbf{6} \mathbf{- 1 7}$ who missed $\mathbf{1 1}$ or more days of school because of illness or injury
6. Adults who smoke*
7. Children ages $\mathbf{1 0} \mathbf{- 1 7}$ who are overweight or obese*

## Mortality Amenable to Health Care

Deaths per 100,000 population*


* Countries' age-standardized death rates before age 75; including ischemic heart disease, diabetes, stroke, and bacterial infections. See Appendix B for list of all conditions considered amenable to health care in the analysis.
Data: E. Nolte, RAND Europe, and M. McKee, London School of Hygiene and Tropical Medicine analysis of World Health Organization mortality files and CDC mortality data for U.S. (Nolte and McKee, 2011).


## Infant Mortality Rate

## Infant deaths per 1,000 live births

National average and state distribution
$—$ U.S. average $*$ Bottom $10 \%$ states $\triangle$ Top $10 \%$ states



^ Denotes years in 2006 and 2008 National Scorecards.
Data: National and state—National Vital Statistics System, Linked Birth and Infant Death Data (AHRQ 2003-2008; Mathews and MacDorman, 2011); international comparison—OECD Health Data 2011 (database), Version 06/2011.

## Healthy Life Expectancy at Age 60, 2007

Developed by the World Health Organization, healthy life expectancy is based on life expectancy adjusted for time spent in poor health because of disease and/or injury
Years


Data: Provided by C. Mathers. Unpublished data set consistent with HALE estimates published in World Health Statistics 2009 (Geneva: World Health Organization).

## HEALTHY LIVES

## Working-Age Adults Limited in Activities Because of Health Problems

Percent of adults ages 18-64 limited in any activities because of physical, mental, or emotional problems



Data: D. Belloff, Rutgers Center for State Health Policy, and D. Radley, analysis of Behavioral Risk Factor Surveillance System.

## HEALTHY LIVES

## School Absences Because of Illness or Injury, by Top and Bottom States, Race/Ethnicity, Family Income, and Insurance

Percent of children ages 6-17 who missed 11 or more school days because of illness or injury during past year


Data: National Survey of Children's Health (retrieved from Data Resource Center for Child and Adolescent Health Web site at http://www.nschdata.org).

## HEALTHY LIVES

## Adults Who Smoke, by Top and Bottom States, Race/Ethnicity, Income, and Insurance

Percent of adults who currently smoke


Data: D. Belloff, Rutgers Center for State Health Policy, and D. Radley, analysis of Behavioral Risk Factor Surveillance System.

## HEALTHY LIVES

## Children Who Are Overweight or Obese, by Top and Bottom States, Race/Ethnicity, Family Income, and Insurance

Percent of children ages $10-17$ who are overweight or obese*


* Overweight is defined as an age- and gender-specific body mass index (BMI-for-age) between the 85th and 94th percentile of the CDC growth charts. Obese is defined as a BMI-for-age at or above 95th percentile. BMI was calculated based on parent-reported height and weight.
Data: National Survey of Children's Health (retrieved from Data Resource Center for Child and
Adolescent Health Web site at http://www.nschdata.org).
Source: Commonwealth Fund National Scorecard on U.S. Health System Performance, 2011.


## SECTION 2. QUALITY

Quality includes indicators organized into four groups:

1. Effective care
2. Coordinated care
3. Safe care
4. Patient-centered, timely care

The Scorecard scores each group of indicators separately, and then averages the four scores to create the overall score for Quality.

## Effective Care

Scored Indicators:

1. Adults received recommended screening and preventive care
2. Children received recommended immunizations and preventive care

- Received all recommended doses of six key vaccines
- Received both preventive medical and dental care visits

3. Adults and children needed mental health care and received treatment

- Adults with major depressive episode who received treatment
- Children needed mental health care and received treatment

4. Chronic disease under control

- Adults with diabetes whose hemoglobin A1c level <9\%
- Adults with hypertension whose blood pressure $<140 / 90 \mathrm{mmHg}$

5. Hospitalized patients received recommended care for heart attack, heart failure, and pneumonia
6. Surgical patients received appropriate care to prevent complications*

## Receipt of Recommended Screening and Preventive Care for Adults

Percent of adults age 18+ who received all recommended screening and preventive care within a specific time frame given their age and sex*


* Recommended care includes at least six key screening and preventive services: blood pressure, cholesterol, Pap, mammogram, fecal occult blood test or sigmoidoscopy/colonoscopy, and flu shot. See Appendix B for complete description. Data: N. Tilipman, Columbia University analysis of Medical Expenditure Panel Survey.


## Immunizations for Young Children

Percent of children ages 19-35 months who received all recommended doses of six key vaccines*
U.S. average and state distribution


By race/ethnicity and family income, 2010


* Recommended vaccines include: 4+ doses of diphtheria-tetanus-pertussis (DTP), 3+ doses of polio, 1+ doses of measles-mumpsrubella, 3+ doses of Haemophilus influenzae type B, 3+ doses of hepatitis B, and 1+ doses of varicella. ^ Denotes years in 2006 and 2008 National Scorecards. ${ }^{\ddagger} 2009$ data are affected by a shortage of Hib vaccine in Dec. 2007-Sept. 2009.
Data: National Immunization Survey (retrieved from CDC National Center for Immunization and Respiratory Disease NIS estimates Web site).
Source: Commonwealth Fund National Scorecard on U.S. Health System Performance, 2011.


## Preventive Care Visits for Children, by Top and Bottom States, Race/Ethnicity, Family Income, and Insurance, 2007

Percent of children under age 18 who received BOTH a preventive medical and dental care visit in past year


Data: National Survey of Children's Health (retrieved from Data Resource Center for Child and Adolescent Health Web site at http://www.nschdata.org).

## Adults with Major Depressive Episode Who Received Treatment, 2009

Percent of adults age 18+ with major depressive episode who received treatment in the past year*


* Major depressive episode is defined as a period of at least two weeks when a person experienced a depressed mood or loss of interest or pleasure in daily activities and had a majority of the symptoms for depression. ** Medicare includes other insurance such as military and veterans health care.
Data: National Survey on Drug Use and Health (SAMHSA 2010).


## Mental Health Care for Children, by Top and Bottom States, Race/Ethnicity, Family Income, and Insurance

Percent of children ages 2-17 who needed and received mental health care in past year*


* Children who had any kind of emotional, developmental, or behavioral problem that required treatment or counseling and who received treatment from a mental health professional during the past year.
Data: National Survey of Children's Health (retrieved from Data Resource Center for Child and Adolescent Health Web site at http://www.nschdata.org).


## Chronic Disease Under Control: Diabetes and Hypertension

U.S. Average


By Insurance, 2005-2008
Percent of nonelderly adults ages 18-64PrivatePublic
$\square$ Uninsured

*Refers to diabetic adults whose hemoglobin A1c is $<9.0 \%$ **Refers to hypertensive adults whose blood pressure is $<140 / 90 \mathrm{mmHg}$. Data: J. M. McWilliams, Harvard Medical School analysis of National Health and Nutrition Examination Survey.

## QUALITY: EFFECTIVE CARE

Chronic Disease Under Control: Managed Care Plan Distribution, 2009

## Diabetes

Percent of adults with diagnosed diabetes whose hemoglobin A1c level <9.0\%


Hypertension
Percent of adults with hypertension whose blood pressure <140/90 mmHg


Note: Diabetes includes ages 18-75; hypertension includes ages 18-85.
Data: Healthcare Effectiveness Data and Information Set (NCQA 2010).

## Hospitals: Quality of Care for Heart Attack, Heart Failure, and Pneumonia

## Overall Composite for All Three Conditions

Percent of patients who received recommended care for all three conditions*


Individual Composites by Condition, 2009
Percent of patients who received recommended care for each condition*


* See Appendix B for methods and description of clinical indicators.

Data: IPRO analysis of data from CMS Hospital Compare.

## Hospitals: Prevention of Surgical Complications

Percent of adult surgical patients who received appropriate care to prevent complications*


* See Appendix B for methods and description of clinical indicators.

Data: IPRO analysis of data from CMS Hospital Compare.

## Coordinated Care

Scored Indicators:

1. Adults ages 19-64 with an accessible primary care provider
2. Children with a medical home
3. Care coordination at hospital discharge

- Hospitalized patients with new Rx: Medications were reviewed at discharge
- Heart failure patients received written instructions at discharge
- Health plan members age 6 and older received follow-up within 30 days after hospitalization for mental health disorder

4. Nursing homes: hospital admissions and readmissions
5. Home health care: hospital admissions

## Adults with an Accessible Primary Care Provider

Percent of adults ages 19-64 with an accessible primary care provider*


* An accessible primary care provider is defined as a usual source of care who provides preventive care, care for new and ongoing health problems, referrals, and who is easy to get to and easy to contact by phone during regular office hours. Data: N. Tilipman, Columbia University analysis of Medical Expenditure Panel Survey.

Children with a Medical Home, by Top and Bottom States, Race/Ethnicity, Family Income, and Insurance, 2007

Percent of children under age 18 who have a personal doctor or nurse and receive care that is accessible, comprehensive, culturally sensitive, and coordinated*


* Child had a personal doctor/nurse; had a usual source for sick care; received family-centered care from all health care providers; had no problems getting needed referrals; and received effective care coordination when needed. Data: National Survey of Children's Health (retrieved from Data Resource Center for Child and Adolescent Health Web site at http://www.nschdata.org).


## Medications Reviewed When Discharged from the Hospital, Among Sicker Adults, 2008

Percent of hospitalized patients with new prescription who reported prior medications were reviewed at discharge


Sicker adults met at least one of the following criteria: health is fair or poor; serious illness in past two years; or was hospitalized or had major surgery in past two years. AUS=Australia; CAN=Canada; FRA=France; GER=Germany; NETH=Netherlands; NZ=New Zealand; UK=United Kingdom; US=United States.
Data: 2008 Commonwealth Fund International Health Policy Survey.

## Transition Care: Hospital Discharge and Follow-Up Care for Chronically III Patients

Percent of heart failure patients discharged home with written instructions*


## Hospitals

Percent of health plan members hospitalized for mental illness with follow-up within 30 days after discharge, 2009



* Discharge instructions must address all of the following: activity level, diet, discharge medications, follow-up appointment, weight monitoring, and what to do if symptoms worsen.
Data: Heart failure discharge instructions_IPRO analysis of data from CMS Hospital Compare; follow-up after hospitalization for mental illness—Healthcare Effectiveness Data and Information Set (NCQA 2010).


## QUALITY: COORDINATED CARE

## Heart Failure Patients Given Complete Written Instructions When Discharged, by Hospitals and States

Percent of heart failure patients discharged home with written instructions*


[^0]
## Managed Care Health Plans: 30-Day Follow-Up After Hospitalization for Mental IIIness

Percent of health plan members age 6 and older who received inpatient treatment for a mental health disorder and had follow-up within 30 days after hospital discharge


Managed care plans (2009)

^ Denotes years in 2006 and 2008 National Scorecards.
Data: Healthcare Effectiveness Data and Information Set (NCQA 2010).

## Nursing Homes: Hospital Admission and Readmission Rates Among Nursing Home Residents, by Hospital Referral Regions

Percent of long-stay nursing home residents hospitalized over a six-month period


Percent of first-time nursing home residents rehospitalized within 30 days of hospital discharge to nursing home


Data: V. Mor and Z. Feng, Brown University analysis of Medicare enrollment data and Part A claims data for all Medicare beneficiaries who entered a nursing home and had a Minimum Data Set assessment.

## Home Health Care: Hospital Admissions

Percent of home health care patients who had to be admitted to the hospital


Data: Outcome and Assessment Information Set (retrieved from CMS Home Health Compare database at http://www.medicare.gov/HHCompare).

## Safe Care

Scored Indicators:

1. Medical, medication, or lab test error
2. Unsafe drug use

- Children prescribed antibiotics for throat infection without a "strep" test
- Use of high-risk medication among elderly Medicare beneficiaries*
- Potentially harmful drug-disease interactions among elderly Medicare beneficiaries*

3. Nursing home residents with pressure sores
4. Hospital-standardized mortality ratios
5. 30-day hospital mortality rates for heart attack, heart failure, and pneumonia*

Other Indicator:

1. Preventable adverse events and other complications of hospital care

* Indicators are new to 2011 edition of the National Scorecard.

Medical, Medication, and Lab Errors, Among Sicker Adults, 2008

Percent of adults reported medical mistake, medication error, or lab error in past two years


Sicker adults met at least one of the following criteria: health is fair or poor; serious illness in past two years; or was hospitalized or had major surgery in past two years. AUS=Australia; CAN=Canada; FRA=France; GER=Germany; NETH=Netherlands; NZ=New Zealand; UK=United Kingdom; US=United States.
Data: 2008 Commonwealth Fund International Health Policy Survey.

## Managed Care Health Plans: Potentially Inappropriate Antibiotic Prescribing for Children with Sore Throat

Percent of child health plan members ages $\mathbf{2 - 1 8}$ who were prescribed antibiotics for throat infection without receiving a "strep" test*


* A lower rate represents better performance.
^ Denotes years in 2006 and 2008 National Scorecards.
Data: Healthcare Effectiveness Data and Information Set (NCQA 2010).


## Prescription of Potentially Unsafe Medications Among Elderly Beneficiaries, by Hospital Referral Regions, 2007

Percent of elderly Medicare beneficiaries



* Medicare beneficiary received at least one drug from a list of 13 classes of high-risk prescriptions that should be avoided by the elderly. ** Medicare beneficiaries with dementia, hip or pelvic fracture, or chronic renal failure, and received a prescription in an ambulatory care setting that is contraindicated for the condition.
Data: Y. Zhang analysis of 5\% sample of Medicare beneficiaries enrolled in stand-alone Medicare Part D plans (Zhang et al., 2010).


## Pressure Sores Among High-Risk and Short-Stay Residents in Nursing Facilities

Percent of nursing home residents with pressure sores

High-risk residents


Short-stay residents


Data: Nursing Home Minimum Data Set (AHRQ 2005, 2007, 2009).

## Hospital-Standardized Mortality Ratios

Standardized ratios compare actual to expected deaths, risk-adjusted for patient mix and community factors.* Medicare national average for 2000=100

Ratio of actual to expected deaths in each decile ( $\mathbf{x} 100$ )


* See Appendix B for methodology.

Data: B. Jarman analysis of Medicare discharges for conditions leading to 80 percent of all hospital deaths.

Risk-Adjusted 30-Day Mortality Rates, by Hospitals, 2006-2009

Percent of Medicare patients who have died from any cause 30 days after hospital admission*
$\square$ 90th \%ile
$\square 75$ th \%ileMedian
■ 25th \%ile
$\square 10$ th \%ile


* The rates take into account deaths within 30 days from all causes after an initial hospitalization with a principal diagnosis of heart attack, heart failure, or pneumonia, respectively.
Data: IPRO analysis of CMS Hospital Compare.


## Potentially Preventable Adverse Events and Complications of Care in Hospitals

| Adjusted rate <br> per 1,000 discharges* | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Failure to rescue | 141.7 | 135.0 | 128.9 | 120.4 | 114.0 | 105.7 |
| Decubitus ulcers | 22.1 | 23.4 | 24.7 | 24.1 | 24.6 | 25.1 |
| Selected infections because <br> of medical care | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.0 |
| Postoperative pulmonary <br> embolus or deep vein <br> thrombosis | 9.6 | 10.3 | 10.7 | 10.7 | 11.2 | 11.5 |
| Postoperative sepsis | 11.1 | 11.7 | 13.2 | 13.7 | 15.1 | 15.4 |

[^1]Patient-Centered, Timely Care

Scored Indicators:

1. Able to see doctor on same or next day when sick or need medical attention
2. Very or somewhat easy to get care after hours without going to the emergency room
3. Doctor-patient communication: doctor always listened carefully, explained things clearly, respected what they had to say, and spent enough time
4. Adults with chronic conditions given self-management plan
5. Patient-centered hospital care
6. Home health care patients whose ability to walk or move around improved*

Other Indicator:

1. Physical restraints in nursing homes

* Indicator is new to 2011 edition of the National Scorecard.


## Waiting Time to See Doctor When Sick or Need Medical Attention, Among Sicker Adults, 2008

Percent of adults who could get an appointment on the same or next day when sick or needed medical attention


Sicker adults met at least one of the following criteria: health is fair or poor; serious illness in past two years; or was hospitalized or had major surgery in past two years. AUS=Australia; CAN=Canada; FRA=France; GER=Germany; NETH=Netherlands; NZ=New Zealand; UK=United Kingdom; US=United States.
Data: 2008 Commonwealth Fund International Health Policy Survey.

## Difficulty Getting Care After Hours Without Going to the Emergency Room, Among Sicker Adults, 2008

Percent of adults who sought care reported "very" or "somewhat" difficult to get care on nights, weekends, or holidays without going to the emergency room


Sicker adults met at least one of the following criteria: health is fair or poor; serious illness in past two years; or was hospitalized or had major surgery in past two years. AUS=Australia; CAN=Canada; FRA=France; GER=Germany; NETH=Netherlands; NZ=New Zealand; UK=United Kingdom; US=United States.
Data: 2008 Commonwealth Fund International Health Policy Survey.

## Doctor-Patient Communication: Doctor Listened Carefully, Explained Things Clearly, Respected What They Had to Say, and Spent Enough Time with Them

Percent of adults age 18 and older reported "always"


^ Denotes years in 2006 and 2008 National Scorecards.
Data: U.S. average-Medical Expenditure Panel Survey (AHRQ 2010); Plan distribution—CAHPS (data provided by NCQA).

## Adults with Chronic Conditions Who Received Self-Management Plan, Among Sicker Adults, 2008

Percent of adults with chronic conditions* whose doctor gave plan to manage care at home


* Adult reported at least one of six conditions: hypertension, heart disease, diabetes, arthritis, lung problems (asthma, emphysema, etc.), or depression.
Sicker adults met at least one of the following criteria: health is fair or poor; serious illness in past two years; or was hospitalized or had major surgery in past two years. AUS=Australia; CAN=Canada; FRA=France; GER=Germany; NETH=Netherlands; NZ=New Zealand; UK=United Kingdom; US=United States.
Data: 2008 Commonwealth Fund International Health Policy Survey.


## Patient-Centered Hospital Care: Staff Managed Pain, Responded When Needed Help, and Explained Medicines, by Hospitals, 2009

Percent of patients reported "always"
$\square$ Best hospital90th \%ile hospitalsMedian
$\square$ 10th \%ile hospitals


* Patient's pain was well controlled and hospital staff did everything to help with pain.
** Patient got help as soon as wanted after patient pressed call button and in getting to the bathroom/using bedpan.
*** Hospital staff told patient what medicine was for and described possible side effects in a way that patient could understand.
Data: IPRO analysis of HCAHPS from CMS Hospital Compare.


## Home Health Care: Ability to Walk

Percent of home health care patients whose ability to walk or move around improved


Data: Outcome and Assessment Information Set (retrieved from CMS Home Health Compare database at http://www.medicare.gov/HHCompare).

## Physical Restraints in Nursing Facilities

Percent of nursing home residents who were physically restrained
U.S. average and state distribution
—U.S. average $*$ Bottom $10 \%$ states $\leftrightarrows$ Top $10 \%$ states


By race/ethnicity


PI=Pacific Islander; AI/AN=American Indian or Alaskan Native.
Data: Nursing Home Minimum Data Set (AHRQ 2004-2009).

## SECTION 3. ACCESS

Access includes indicators organized into two groups:

1. Participation
2. Affordability

The Scorecard scores each group of indicators separately, and then averages the two scores to create the overall score for Access.

## ACCESS: PARTICIPATION

## Participation

Scored Indicators:

1. Adults ages 19-64 insured all year, not underinsured
2. Adults with no access problem because of costs

Other Indicators:

1. Uninsured under age 65 : trends
2. Percent of adults ages $19-64$ uninsured by state (map)
3. Percent of children ages $\mathbf{0} \mathbf{- 1 8}$ uninsured by state (map)
4. Post-reform: projected percent of adults ages 19-64 uninsured by state (map)

## ACCESS: PARTICIPATION

## Uninsured and Underinsured Adults

Percent of adults ages 19-64 who are uninsured or underinsured

## Millions of adults ages 19-64 who are

 uninsured or underinsured, 2010

## Insured all year, not underinsured Underinsured* $\square$ Uninsured during year



Total: 184 million**

* Underinsured defined as insured all year but experienced one of the following: medical expenses equaled $10 \%$ or more of income; medical expenses equaled $5 \%$ or more of income if low-income (<200\% of poverty); or deductibles equaled $5 \%$ or more of income.
** Subgroups may not sum to total because of rounding.
Data: 2003, 2007, and 2010 Commonwealth Fund Biennial Health Insurance Surveys.


## ACCESS: PARTICIPATION

## Access Problems Because of Costs, 2010

Percent of adults who had any of three access problems* in past year because of costs


* Did not get medical care because of cost of doctor's visit; skipped medical test, treatment, or follow-up because of cost; or did not fill Rx or skipped doses because of cost.
AUS=Australia; CAN=Canada; FRA=France; GER=Germany; NETH=Netherlands; NZ=New Zealand; NOR=Norway; SWE=Sweden; SWIZ=Switzerland; UK=United Kingdom; US=United States.
Data: 2010 Commonwealth Fund International Health Policy Survey.


## ACCESS: PARTICIPATION

## Population Under Age 65 Without Health Insurance

Percent uninsured


Millions uninsured


Data: U.S. Census Bureau, 2000-01 (revised) and 2010-11 Current Population Survey ASEC Supplement.

## ACCESS: PARTICIPATION

## Percent of Adults Ages 19-64 Uninsured by State



Data: U.S. Census Bureau, 2000-01 (revised) and 2010-11 Current Population Survey ASEC Supplement.

## ACCESS: PARTICIPATION

## Percent of Children Ages 0-18 Uninsured by State



Data: U.S. Census Bureau, 2000-01 (revised) and 2010-11 Current Population Survey ASEC Supplement.

## ACCESS: PARTICIPATION

## Post-Reform: Projected Percent of Adults Ages 19-64 Uninsured by State



Data: U.S. Census Bureau, 2010-11 Current Population Survey ASEC Supplement; estimates for 2019 by Jonathan Gruber and lan Perry of MIT using the Gruber Microsimulation Model for The Commonwealth Fund.

## Affordable Care

Scored Indicators:

1. Persons under age 65 living in families with low out-of-pocket spending for medical care and premiums relative to family income
2. Persons under age 65 living in states where premiums for employer-sponsored health coverage are less than 15 percent of under-65 median household income
3. Adults ages 19-64 with no medical bill problems or medical debt

Other Indicator:

1. Health insurance premium trends compared with workers' earnings and overall inflation

## Financial Burden from Health Care Spending: High Out-of-Pocket Medical and Premium Costs Relative to Income

Percent of people under age 65 living in families with high out-of-pocket medical and premium costs relative to family income*


* Defined as having combined out-of-pocket expenses for services and premiums greater than 5 percent for people in families with incomes less than $200 \%$ of poverty, and out-of-pocket expenses greater than 10 percent for people in families with incomes of $200 \%$ of poverty or higher.
^ Poor refers to household incomes <100\% of federal poverty level (FPL); low income to 100\%-199\% FPL; middle income to $200 \%-399 \%$ FPL; and high income to $400 \%+$ FPL.
Data: P. Cunningham, Center for Studying Health System Change analysis of Medical Expenditure Panel Survey.


## Employer Premiums as Percentage of Median Household Income for Population Under Age 65

Average total premium for employer-based single and family coverage


Under-65 population living in states where premiums as share of median household income are within the following ranges


Data: Average total premiums-2003, 2005, and 2009 Medical Expenditure Panel Survey; state median income for single and family households (all under age 65) -2003-2004, 2005-2006, and 2009-2010 Current Population Survey.

## Employer Premiums as Percentage of Median Household Income for Population Under Age 65, by State

2003
2009


Data: Average total premiums-2003, 2005, and 2009 Medical Expenditure Panel Survey; state median income for single and family households (all under age 65)-2003-2004, 2005-2006, and 2009-2010 Current Population Survey.

## Medical Bill Problems or Medical Debt

Percent of adults ages 19-64 with any medical bill problem or outstanding debt*


* Problems paying or unable to pay medical bills, contacted by a collection agency for medical bills, had to change way of life to pay bills, or has medical debt being paid off over time.
Data: 2005 and 2010 Commonwealth Fund Biennial Health Insurance Surveys.


## ACCESS: AFFORDABLE CARE

## Increases in Health Insurance Premiums Compared with Other Indicators, 1999-2010



## SECTION 4. EFFICIENCY

Scored Indicators:

1. Potential overuse or waste

- Duplicate medical tests
- Tests results or records not available at appointment
- Potentially inappropriate imaging for low back pain

2. Emergency room use for condition that could have been treated by regular doctor
3. Potentially preventable hospitalizations for ambulatory care-sensitive conditions
4. Medicare hospital 30-day readmission rates
5. Medicare costs of care and mortality for heart attacks, hip fractures, or colon cancer
6. Medicare costs of care for beneficiaries with multiple chronic diseases
7. Health insurance administration as percent of total national health expenditures
8. Use of electronic medical records

- Primary care physicians using electronic medical records
- Hospitalized patients received care in a hospital with basic or comprehensive electronic health record system*
* Indicator is new to 2011 edition of the National Scorecard.


## International Comparison of Spending on Health, 1980-2009

Average spending on health per capita (\$US PPP*)


* PPP=Purchasing Power Parity.

Data: OECD Health Data 2011 (database), version 6/2011.

Total expenditures on health as percent of GDP


## Duplicate Medical Tests, Among Sicker Adults, 2008

Percent of adults reported that doctor ordered test that had already been done in past two years


Sicker adults met at least one of the following criteria: health is fair or poor; serious illness in past two years; or was hospitalized or had major surgery in past two years. AUS=Australia; CAN=Canada; FRA=France; GER=Germany; NETH=Netherlands; NZ=New Zealand; UK=United Kingdom; US=United States.
Data: 2008 Commonwealth Fund International Health Policy Survey.

## Test Results or Medical Records Not Available at Time of Appointment, Among Sicker Adults, 2008

Percent of adults reported test results or records were not available at time of appointment in past two years


Sicker adults met at least one of the following criteria: health is fair or poor; serious illness in past two years; or was hospitalized or had major surgery in past two years. AUS=Australia; CAN=Canada; FRA=France; GER=Germany; NETH=Netherlands; NZ=New Zealand; UK=United Kingdom; US=United States.
Data: 2008 Commonwealth Fund International Health Policy Survey.

Managed Care Health Plans: Potentially Inappropriate Imaging Studies for Low Back Pain, by Plan Type

Percent of health plan members with a primary diagnosis of low back pain who received an imaging study within 28 days of the diagnosis*


Managed care plans (2009)

* Lower rate represents better performance.
^ Denotes years in 2006 and 2008 National Scorecards.
Data: Healthcare Effectiveness Data and Information Set (NCQA 2010).


## Went to Emergency Room for Condition That Could Have Been Treated by Regular Doctor, Among Sicker Adults, 2008

Percent of adults who went to the emergency room in past two years for condition that could have been treated by regular doctor if available


Sicker adults met at least one of the following criteria: health is fair or poor; serious illness in past two years; or was hospitalized or had major surgery in past two years. AUS=Australia; CAN=Canada; FRA=France; GER=Germany; NETH=Netherlands; NZ=New Zealand; UK=United Kingdom; US=United States.
Data: 2008 Commonwealth Fund International Health Policy Survey.

## Potentially Preventable Hospital Admissions for Select Ambulatory Care-Sensitive Conditions

Adjusted rate per 100,000 population*


* Rates are adjusted by age and gender using the total U.S. population for 2000 as the standard population.
** Combines three diabetes admission measures: uncontrolled diabetes without complications, diabetes with short-term complications, and diabetes with long-term complications.
Data: U.S. average-Healthcare Cost and Utilization Project, Nationwide Inpatient Sample; State distribution-State Inpatient Databases; not all states participate in HCUP (AHRQ 2010).


## Medicare Admissions for Ambulatory Care-Sensitive Conditions, Rates and Associated Costs, 2009

Rate of ambulatory care-sensitive admissions per 10,000 beneficiaries


Costs of ambulatory care-sensitive admissions as percent of all discharge costs


See report Appendix B for complete list of ambulatory care-sensitive conditions used in the analysis.
Data: G. Anderson and R. Herbert, Johns Hopkins University analysis of Medicare Standard Analytical Files (SAF)
5\% Inpatient Data.

## Medicare Hospital 30-Day Readmission Rates

Percent of Medicare beneficiaries initially admitted for one of 45 medical conditions or surgical procedures who are readmitted within 30 days following discharge*


[^2]
## Quality and Costs of Care for Medicare Patients Hospitalized for Heart Attacks, Hip Fractures, or Colon Cancer, by Hospital Referral Regions, 2004



Note: Indicator was not updated; figures from the previous edition of the National Scorecard are presented.

* Indexed to risk-adjusted 1-year survival rate (median=0.70).
** Risk-adjusted spending on hospital and physician services using standardized national prices.
Data: E. Fisher, J. Sutherland, and D. Radley, Dartmouth Medical School analysis of data from a 20\% national sample of Medicare beneficiaries.


## Quality and Costs of Care for Medicare Patients Hospitalized for Heart Attacks, Hip Fractures, or Colon Cancer, by Hospital Referral Regions

One-year mortality rate


Annual relative resource use, 2004*
Dollars (\$)


Note: Indicator was not updated; figures from the previous edition of the National Scorecard are presented.

* Risk-adjusted spending on hospital and physician services using standardized national prices.

Data: E. Fisher, J. Sutherland, and D. Radley, Dartmouth Medical School analysis of data from a $20 \%$ national sample of Medicare beneficiaries.

## EFFICIENCY

## Annual Costs of Care for Medicare Beneficiaries with Multiple Chronic Diseases



COPD=chronic obstructive pulmonary disease.
Data: G. Anderson and R. Herbert, Johns Hopkins University analysis of Medicare Standard Analytical Files (SAF) 5\% Inpatient Data.

## EFFICIENCY

## Annual Costs of Care for Medicare Beneficiaries with Diabetes, Heart Failure, and Chronic Obstructive Pulmonary Disease (All Three Conditions)

Dollars in thousands


Data: G. Anderson and R. Herbert, Johns Hopkins University analysis of Medicare Standard Analytical Files (SAF) 5\% Inpatient Data.

International Comparison of Spending on Insurance Administration, 2009

|  | Percent of NHE* | Per capita (\$US PPP**) |
| :--- | :---: | :---: |
| Japan $^{\text {a }}$ | $1.9 \%$ | $\$ 53.6$ |
| Finland | $2.1 \%$ | $\$ 63.2$ |
| Australia |  |  |
| Austria | $3.6 \%$ | $\$ 118.3$ |
| Canada | $3.6 \%$ | $\$ 146.8$ |
| Netherlands | $3.7 \%$ | $\$ 153.3$ |
| Switzerland | $4.0 \%$ | $\$ 185.1$ |
| Germany | $4.9 \%$ | $\$ 253.2$ |
| France | $5.4 \%$ | $\$ 221.8$ |
| United States ${ }^{\text {b }}$ | $7.0 \%$ | $\$ 270.8$ |

[^3]
## Use of Electronic Medical Records

Percent of primary care physicians using electronic medical records


AUS=Australia; CAN=Canada; FRA=France; GER=Germany; ITA=Italy; NETH=Netherlands; NZ=New Zealand; NOR=Norway; SWE=Sweden; UK=United Kingdom.
Data: Commonwealth Fund International Health Policy Survey of Physicians.

## Adoption of Comprehensive and Basic Electronic Record Systems, 2009

Percent of hospitalized patients received care in hospitals with basic, comprehensive, or no electronic record system
$\square$ Basic*
$\square$ Comprehensive**None

*Basic electronic record system defined as having 10 functions deployed in at least one hospital unit. See Appendix B for a description of electronic functionalities.
** Comprehensive electronic record system defined as having 24 functions deployed in all hospital units.
Data: A. Jha, Harvard School of Public Health analysis of American Hospital Association Annual Survey Health Information Technology Supplement.

## SECTION 5. EQUITY

For equity, the Scorecard contrasts rates of risk by insurance, income, and race/ethnicity. Specifically, the risk ratios compare:

- Insured to uninsured rates
- High-income to low-income rates
- White to black rates
- White to Hispanic rates

Indicators used to score equity include a subset of main indicators and a few equity-only indicators to highlight certain areas of concern. They are grouped as follows:

- Healthy lives
- Effective care
- Safe care
- Patient-centered, timely care
- Coordinated and efficient care
- Universal participation and affordable care

Charts for equity indicators are interspersed throughout other sections as appropriate

## Infant Mortality

Infant deaths per 1,000 live births

By race/ethnicity, 1995-2007


Preterm-related infant deaths by race and Hispanic origin, 2007
$\square$ Total infant mortality $\quad$ Preterm-related

${ }^{\wedge}$ Denotes years in 2006 and 2008 National Scorecards. PI=Pacific Islander; AI/AN=American Indian or Alaskan Native. Data: National Vital Statistics System, Linked Birth and Infant Death Data (NCHS 2011; Mathews and MacDorman, 2011).

## EQUITY: HEALTHY LIVES

## Working-Age Adults Limited in Activities Because of Health Problems, 2010

Percent of adults limited in any activities because of physical, mental, or emotional problems


Data: D. Belloff, Rutgers Center for State Health Policy, and D. Radley, analysis of Behavioral Risk Factor Surveillance System.

## Coronary Heart Disease and Diabetes-Related Mortality, by Race/Ethnicity and Education Level, 2006

Age-adjusted mortality per 100,000 population

Coronary heart disease mortality


Diabetes-related mortality


Data: National Vital Statistics System—Mortality (retrieved from DATA2010 at http://wonder.cdc.gov/data2010).

## Receipt of Recommended Preventive Care for Older Adults, by Race/Ethnicity, Family Income, and Insurance Status, 2008

Percent of older adults who received all recommended screening and preventive care within a specific time frame given their age and sex*

Adults ages 50-64



* Recommended care includes at least six key screening and preventive services: blood pressure, cholesterol, Pap, mammogram, fecal occult blood test or sigmoidoscopy/colonoscopy, and flu shot. See report Appendix B for complete description.
Data: N. Tilipman, Columbia University analysis of Medical Expenditure Panel Survey.


## Untreated Dental Caries, by Age, Race/Ethnicity, Family Income, and Insurance Status, 2005-2008

Percent of people with untreated dental caries


Data: Race/ethnicity—National Health and Nutrition Examination Survey (NCHS 2011); Total, income, and insuranceJ. M. McWilliams, Harvard Medical School analysis of National Health and Nutrition Examination Survey.

## Adults with Poorly Controlled Chronic Diseases, by Race/Ethnicity, Family Income, and Insurance Status, 2005-2008

Percent of adults age 18+ with diagnosed diabetes with hemoglobin A1c level $\geq 9 \%$


Percent of adults age 18+ with hypertension with blood pressure $\geq 140 / 90 \mathrm{mmHg}$


* High refers to household incomes $\geq 400 \%$ of federal poverty level (FPL); middle to $200 \%-399 \%$ FPL; near poor to $100 \%-199 \%$ FPL; and poor to <100\% FPL.
Data: J. M. McWilliams, Harvard Medical School analysis of National Health and Nutrition Examination Survey.


## Receipt of All Three Recommended Services for Diabetics, by Race/Ethnicity, Family Income, Insurance, and Residence, 2007

Percent of diabetics age 40 and older who received hemoglobin A1c test, retinal exam, and foot exam in past year


* Insurance for people ages 40-64.

Data: Medical Expenditure Panel Survey (AHRQ 2010).

Medical, Medication, and Lab Errors, by Race/Ethnicity, Income, and Insurance Status, Among Sicker Adults, 2008

Percent of adults ages 18-64 who reported medical mistake, medication error, or lab error in past two years


Sicker adults met at least one of the following criteria: health is fair or poor; serious illness in past two years; or was hospitalized or had major surgery in past two years.
Data: 2008 Commonwealth Fund International Health Policy Survey.

## Select AHRQ Patient Safety Indicators, 2007

| Adjusted rate per 1,000 discharges* | Failure to rescue | Decubitus ulcers | Selected infections because of medical care | Postoperative pulmonary embolus or deep vein thrombosis | Postoperative sepsis |
| :---: | :---: | :---: | :---: | :---: | :---: |
| RACE/ETHNICITY |  |  |  |  |  |
| White | 111.3 | 23.6 | 2.1 | 10.8 | 15.9 |
| Black | 105.0 | 33.3 | 2.7 | 16.3 | 17.8 |
| Hispanic | 115.7 | 25.4 | 2.0 | 11.8 | 16.5 |
| Asian/Pacific Islander | 130.2 | 22.6 | 2.3 | 10.3 | 19.0 |
| MEDIAN INCOME OF PATIENT ZIP CODE |  |  |  |  |  |
| 1st quartile (lowest) | 107.7 | 25.7 | 2.0 | 11.9 | 15.7 |
| 2nd quartile | 106.5 | 24.0 | 2.0 | 10.7 | 15.2 |
| 3rd quartile | 103.8 | 24.0 | 2.0 | 11.0 | 15.9 |
| 4th quartile (highest) | 103.2 | 26.7 | 2.0 | 12.4 | 14.7 |
| INSURANCE |  |  |  |  |  |
| Private insurance | 101.8 | 20.3 | 1.7 | 10.4 | 13.8 |
| Medicare | 103.3 | 25.5 | 2.2 | 11.7 | 16.0 |
| Medicaid | 110.3 | 33.6 | 2.6 | 14.5 | 16.4 |
| Uninsured/self-pay | 126.8 | 17.9 | 1.4 | 11.1 | 17.1 |

* Rates are adjusted by age, gender, age-gender interactions, comorbidities, and Diagnosis Related Group (DRG) clusters. Data: Race/ethnicity—Healthcare Cost and Utilization Project, State Inpatient Database (AHRQ 2010); income area, insurance, and patient residence—Healthcare Cost and Utilization Project, Nationwide Inpatient Sample (AHRQ 2010).


## Pressure Sores Among High-Risk and Short-Stay Residents in Nursing Facilities, by Race/Ethnicity, 2008

Percent of nursing home residents with pressure sores


PI=Pacific Islander; Al/AN=American Indian or Alaskan Native.
Data: Nursing Home Minimum Data Set (AHRQ 2010).

## Waiting Time to See Doctor When Sick or Need Medical Attention,

 by Race/Ethnicity, Income, and Insurance Status, 2010Percent of adults ages 18-64 waited six or more days for an appointment or never received an appointment when sick or needed medical attention


Data: 2010 Commonwealth Fund International Health Policy Survey.

## Doctor-Patient Communication, by Race/Ethnicity, Family Income, Insurance, and Residence, 2007

Percent of adults age 18 and older whose health providers "sometimes" or "never" listened carefully, explained things clearly, respected what they had to say, and spent enough time with them


* Insurance for people ages 18-64.

Data: Medical Expenditure Panel Survey (AHRQ 2010).

Duplicate Medical Tests, by Race/Ethnicity, Income, and Insurance Status, 2010

Percent of adults ages 18-64 reported that doctor ordered test that had already been done in past two years


Data: 2010 Commonwealth Fund International Health Policy Survey.

## Test Results or Medical Record Not Available at Time of Appointment, by Race/Ethnicity, Income, and Insurance Status, 2010

Percent of adults ages 18-64 reported test results or records were not available at time of appointment in past two years


Data: 2010 Commonwealth Fund International Health Policy Survey.

## Went to Emergency Room for Condition That Could Have Been Treated by

Regular Doctor, by Race/Ethnicity, Income, and Insurance Status, 2010

Percent of adults ages 18-64 went to the emergency room in past two years for a condition that could have been treated by regular doctor if available


Data: 2010 Commonwealth Fund International Health Policy Survey.

## Hospital Admissions for Select Ambulatory Care-Sensitive Conditions, by Race/Ethnicity and Patient Income Area, 2007

Adjusted rate per 100,000 population*



Pediatric asthma


* Rates are adjusted by age and gender using the total U.S. population for 2000 as the standard population.
** Combines three diabetes admission measures: uncontrolled diabetes without complications, diabetes with short-term complications, and diabetes with long-term complications.
Patient Income Area=median income of patient zip code.
Data: Healthcare Cost and Utilization Project, State Inpatient Databases (AHRQ 2010).


## Nonelderly People with Time Uninsured During the Year, by Family Income and Race/Ethnicity, 2007

Percent of people under age 65 who had no health insurance coverage sometime during the year


Note: High refers to household incomes $\geq 400 \%$ of federal poverty level (FPL); middle to $200 \%-399 \%$ FPL;
near poor to $100 \%-199 \%$ FPL; and poor to <100\% FPL.
Data: Medical Expenditure Panel Survey (AHRQ 2010).

## Cost-Related Access Problems, by Race/Ethnicity, Income, and Insurance Status, 2010

Percent of adults ages 19-64 who had any of four access problems* in past year because of cost


* Did not fill a prescription; skipped recommended medical test, treatment, or follow-up; had a medical problem but did not visit doctor or clinic; or did not see a specialist when needed.
Data: 2010 Commonwealth Fund Biennial Health Insurance Survey.


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Source: Commonwealth Fund National Scorecard on U.S. Health System Performance, 2011.


[^0]:    * Discharge instructions must address all of the following: activity level, diet, discharge medications, follow-up appointment, weight monitoring, and what to do if symptoms worsen.
    Data: IPRO analysis of data from CMS Hospital Compare.

[^1]:    * Rates are adjusted by age, gender, age-gender interactions, comorbidities, and Diagnosis Related Group (DRG) clusters.

    Data: Healthcare Cost and Utilization Project, Nationwide Inpatient Sample (retrieved from HCUPNet at http://hcupnet.ahrq.gov),

[^2]:    * See Appendix B for list of conditions and procedures used in the analysis.

    Data: G. Anderson and R. Herbert, Johns Hopkins University analysis of Medicare Standard Analytical Files (SAF) 5\% Inpatient Data.

[^3]:    * NHE = national health expenditures; ** PPP = purchasing power parity.
    a 2008.
    ${ }^{\text {b }}$ Includes claims administration, underwriting, marketing, profits, and other administrative costs; based on premiums minus claims expenses for private insurance.
    Data: OECD Health Data 2011 (database), Version 06/2011.

