

THE STATE OF HEALTH CARE QUALITY 2006



NATIONAL COMMITTEE FOR QUALITY ASSURANCE
WASHINGTON, D.C.



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PRESIDENT'S MESSAGE

Dear Colleague:

Thanks to the collective efforts of dedicated professionals, health plans, and health care organizations, there is now in place a systematic assessment of health care quality in this country that did not exist a decade ago. The rewards of this effort are substantial: across nearly every dimension of care measured, performance has trended steadily, and in some cases dramatically, upward.

Happily, the trend of quality improvement continued this past year. The level of performance among private health plans improved on 35 of 42 HEDIS® measures of effectiveness of care. While abstract on paper, these gains translate into real improvements. In 2005, for instance, blood pressure control improved two percentage points over the previous year. Behind this small gain, however, are 82,000 people who brought their blood pressure down to appropriate levels - and between 1,000 and 2,000 lives were saved as a direct result.

Some may credit such improvements to what's known in business schools as the Hawthorne effect: obvious measurement is, in and of itself, an impetus for improvement. Skeptics often ascribe various improvements to the Hawthorne effect to cast doubt on whether a certain program, therapy, or innovation is actually effective. But this begs the question: *What happens if we don't measure?*

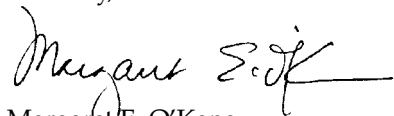
The good news is that the number of plans that *do* measure and report on quality—and the number of Americans covered by such plans—increased for the first time in three years. In 2005, 536 HMOs and POS plans reported data for more than 62 million Americans. And for the first time, more than 80 preferred provider organizations (PPOs) reported HEDIS data for another 14 million people, demonstrating that quality measurement and reporting among PPOs, once thought to be impossible, is now feasible. This is an enormously promising development for the millions of Americans enrolled in those plans that came forward to report. This good news, however, is tempered by the knowledge that more than 100 million Americans remain enrolled in plans that choose to report no objective quality data.

Too many consumers and employers choose their plan on the basis of cost alone and it's hard to blame them. Although premium increases have slowed in recent years, they still far outpace wage growth and our gross domestic product. Rising costs threaten to crowd quality out of the national discussion on health care, so it's imperative to focus our efforts on not just eliminating waste, but clearly quantifying and expressing our return on our health care investment in terms of better health outcomes.

Information is only of value to the extent that it prompts action or effects change. To this end, recent developments, particularly in the public sector, are encouraging. In August, President Bush signed an Executive Order that calls for health plans serving federal employees to collect quality and cost data. Other federal agencies, including the Medicare program and the Federal Employees Health Benefits program, have announced HEDIS reporting initiatives.

Helping our health care system realize its full potential for delivering the right care at the right time to all Americans will require tremendous resources, coordinated effort and political courage. But the work of dedicated stakeholders from across the health care system has brought us this far, and produced a promising and remarkable story of improvement. I look forward to its next chapter.

Sincerely,



Margaret E. O'Kane
President

■ INTRODUCTION

The *State of Health Care Quality* is produced annually by NCQA to monitor and report on performance trends over time, track variations in patterns of care and provide recommendations for future quality improvement.

This report is read annually by tens of thousands of people, from consumers to benefits managers, policymakers, academics and consultants. As the purpose of this report is to drive improvement in the delivery of evidence-based medicine by drawing attention to the pressing quality issues we face as a nation, members of the media are also frequent readers.

The clinical and member satisfaction data upon which this report is based were voluntarily reported to NCQA by more than 500 health plans. All clinical data—including data reported for the first time this year by preferred provider organizations—are rigorously audited. Member satisfaction information is independently collected and verified. All of these plans are to be commended for their commitment to accountability and continuous quality improvement.

Copies of this report may be downloaded online free of charge at NCQA's Web site, www.ncqa.org. This report is also available for purchase from NCQA by calling (888) 275-7585.

We thank you for your interest and welcome your feedback.

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MORE THAN 70 MILLION AMERICANS BENEFIT FROM IMPROVEMENTS DRIVEN BY QUALITY MEASUREMENT

The quality of health care for millions of Americans improved in most areas of care in 2005, the seventh consecutive year of such gains. People enrolled in health plans that measure and publicly report performance data were more likely to receive preventive care and have their chronic conditions managed in accordance with clinical guidelines based upon medical evidence.

Among the most notable improvements: 77.7 percent of children enrolled in private health plans received all recommended immunizations, up from 72.5 percent in 2004; 70.3 percent of children in Medicaid managed care plans were immunized in accordance with clinical guidelines, up from 63.1 percent in 2004. And 75.5 percent of Medicare beneficiaries who were smokers received advice to quit, a gain of nearly 11 percentage points over 2004 (*Figure 1*).

In 2005, for patients enrolled in private health plans, there was improvement in 35 of 42 HEDIS® measures. The results were also impressive among Medicaid beneficiaries enrolled in managed care plans; 31 of 40 Medicaid HEDIS measures posted gains. Among Medicare beneficiaries, however, health plans posted gains in only 10 of 23 measures.

FIGURE 1. HEDIS EFFECTIVENESS OF CARE MEASURES

SELECT TRENDS, 2003 - 2005

COMMERCIAL AVERAGES	2003	2004	2005
Adolescent Immunization Status - Combination 2	41.6	46.9	53.7
Controlling High Blood Pressure	62.2	66.8	68.8
Childhood Immunization Status - Combination 2	69.8	72.5	77.7
Beta-Blocker Treatment After a Heart Attack	94.3	96.2	96.6
Comprehensive Diabetes Care: HbA1c Testing	84.6	86.5	87.5
Comprehensive Diabetes Care: Lipid Control (<100 mg/dL)	34.7	40.2	43.8
Medical Assistance with Smoking Cessation	68.6	69.6	71.2
MEDICAID AVERAGES	2003	2004	2005
Adolescent Immunization Status - Combination 2	33.9	38.1	42.4
Controlling High Blood Pressure	58.6	61.4	61.4
Childhood Immunization Status - Combination 2	58.5	63.1	70.3
Beta-Blocker Treatment After a Heart Attack	83.5	84.8	86.1
Comprehensive Diabetes Care: HbA1c Testing	74.8	75.9	76.2
Comprehensive Diabetes Care: Lipid Control (<100 mg/dL)	27.8	30.6	32.6
Medical Assistance with Smoking Cessation	65.8	66.9	65.6
MEDICARE AVERAGES	2003	2004	2005
Controlling High Blood Pressure	61.4	64.6	66.4
Beta-Blocker Treatment After a Heart Attack	92.9	94.0	93.8
Comprehensive Diabetes Care: HbA1c Testing	87.9	89.1	88.9
Comprehensive Diabetes Care: Lipid Control (<100 mg/dL)	41.9	47.5	50.0
Medical Assistance with Smoking Cessation	63.3	64.7	75.5

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Amidst this success story, however, were signs that the pace of improvement may be slowing: fewer quality measures showed statistically significant improvements in 2005 than in 2004. This may be an indication that there is less room for improvement (*Figure 2*) and that new strategies and new measures need to be developed and implemented to take the next steps forward in continued improvement.

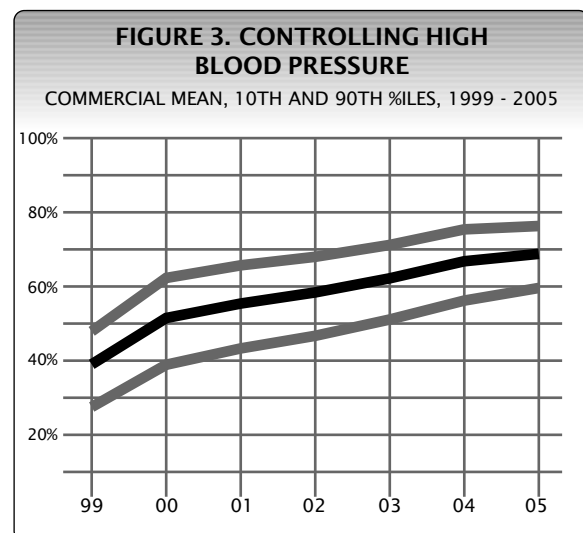
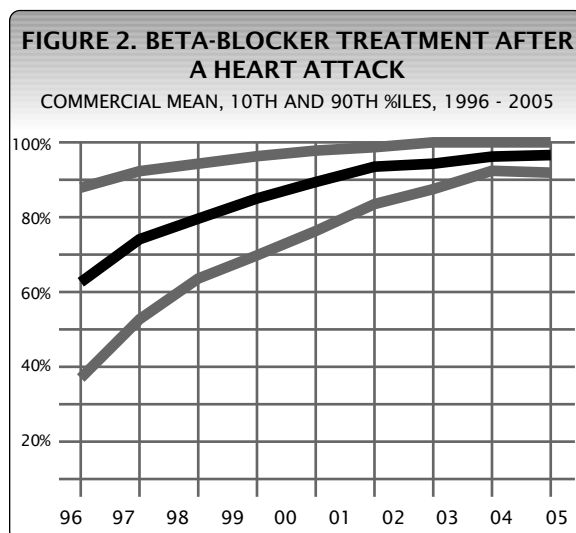
THE LESSONS OF TEN YEARS OF MEASUREMENT

This year's report marks the tenth year that NCQA has reported on the state of health care quality to the American people. A powerful thread emerges from the 10 years of collecting, analyzing and reporting quality data: *measurement leads to quality improvement*.

To best demonstrate the long-term transformative effects of measurement and public reporting it is useful to examine the trends of quality measures over the duration of the measure. Such examination uncovers startling improvements: for example, in 2005, children enrolled in commercial health plans were nearly three times as likely to have received all recommended immunizations as they were eight years ago. Patients with diabetes are now more than twice as likely to have their cholesterol controlled to recommended levels as they were in 1998.

And perhaps the most dramatic success story is that of beta-blocker treatment: in 2005, more than 96 percent of patients who suffered a heart attack were prescribed beta-blockers to help prevent a second, and often fatal, heart attack, up from only 62 percent in 1996. This improvement alone has saved between 4,200 and 5,300 lives over the past 10 years.

Performance rates on several key dimensions of care have not only substantially improved over the past decade, but in many cases undesirable variation among plans has decreased, resulting in more consistent quality for patients no matter what plan they belong to (*Figures 2-3*).



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These continuous improvements in clinical quality over time, the direct result of performance measurement and reporting, have saved the lives of 53,000 to 91,000 Americans—and prevented hundreds of thousands of serious complications (*Figure 4*).

There are, however, disturbing exceptions to this pattern of improvement. The quality of care for Americans with mental health problems remains as poor today as it was several years ago. Patients on antidepressant medication are about as likely to receive appropriate care today as they were in 1999 (*Figure 5*). Similarly, patients hospitalized for mental illness are only marginally more likely to receive appropriate follow-up care. Given the huge economic and societal toll of untreated or inadequately treated mental illness, new approaches must be developed to bring mental health care quality to the level of clinical effectiveness that evidence shows to be possible.

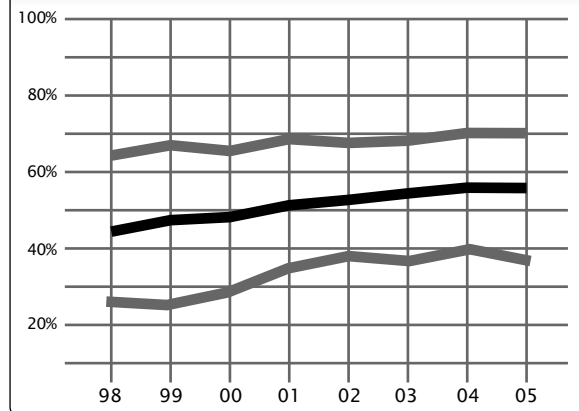
FIGURE 4. LIVES SAVED DUE TO IMPROVEMENTS IN ACCOUNTABLE PLANS

COMMERCIAL AND MEDICARE

MEASURE	LIVES SAVED
Beta-Blocker Treatment After a Heart Attack	4,200 - 5,300
Controlling High Blood Pressure	47,800 - 83,000
Poor HbA1c Control	1,600 - 2,700
TOTAL	53,600 - 91,000

FIGURE 5. FOLLOW UP AFTER HOSPITALIZATION FOR MENTAL ILLNESS - 7 DAYS

COMMERCIAL MEAN, 10TH AND 90TH %ILES, 1998 - 2005



PERSISTENCE OF “QUALITY GAPS” COSTS LIVES, MONEY

Despite the general improvements in quality over the past several years, enormous differences persist between the performance of the health care system as a whole and the top 10 percent of health plans who report on quality. These “quality gaps” represent the continuing failure to consistently deliver care in accordance with well-established guidelines and exact a substantial toll in terms of both lives and economic costs. If the entire health care system performed at the level of the top accountable plans, between 37,600 and 81,000 deaths would be avoided per year and between \$2.6 billion and \$3.6 billion in unnecessary hospitalization expenses would be saved (*Figure 6*).

Consumers and employers share the costs of this failure as well: low-quality care leads to an estimated 64.7 million avoidable sick days: the equivalent of almost 270,000 full-time employees, or the combined workforces of Starbucks and Boeing, calling in sick for an entire year. Quality gaps also lead to \$10.6 billion in lost productivity (*Figure 7*).

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FIGURE 6. AVOIDABLE DEATHS AND MEDICAL COSTS DUE TO UNEXPLAINED VARIATIONS IN CARE: SELECT MEASURES AND CONDITIONS, U.S. POPULATION, 2005		
MEASURE	AVOIDABLE DEATHS	AVOIDABLE HOSPITAL COSTS
Beta-Blocker Treatment After a Heart Attack	800 - 1700	\$9.7 million - \$15.2 million
Breast Cancer Screening	100 - 700	\$41.9 million - \$94.2 million
Controlling High Blood Pressure	10,600 - 29,600	\$333 million - \$922 million
Cervical Cancer Screening	800 - 1,200	N/A
Diabetes Care - HbA1c Control	7,400 - 15,000	\$1.35 billion - \$1.62 billion
Smoking Cessation	7,300 - 11,100	\$848 million - \$872 million
Prenatal Care	1,300 - 2,200	N/A
Colorectal Cancer Screening	5,700 - 11,900	\$267 million - \$374 million
Flu Shots for Adults (65+)	3,600 - 7,600	N/A
Osteoporosis Management	N/A	\$8.3 million - \$8.7 million
Total	37,600 - 81,000	\$2.9 billion - \$3.9 billion

FIGURE 7. ESTIMATED SICK DAYS* AND LOST PRODUCTIVITY DUE TO SUBOPTIMAL CARE, U.S. WORKFORCE, 2005		
MEASURE	SICK DAYS	LOST PRODUCTIVITY
Depression	8.4 million	\$1.4 billion
Asthma	11.8 million	\$1.9 billion
Diabetes	17.3 million	\$2.8 billion
Hypertension	27.2 million	\$4.5 billion
Total	64.7 million	\$10.6 billion

* Includes days attributable to "presenteeism," when sick employees report to work but work at a reduced capacity.

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ACCREDITATION, PUBLIC REPORTING ARE KEYS TO QUALITY

Health plans that undergo accreditation - assessment for compliance with standards for quality improvement, access to care, utilization management, and patients' rights and responsibilities - continue to perform at a higher level than those that are not accredited (*Figure 8*). In 2005, accredited commercial managed care plans scored higher than their unaccredited counterparts on 38 of 40 reported measures. Accredited Medicare plans scored higher on 22 of 23 measures, while accredited Medicaid plans outperformed non-accredited plans on 34 of 38 measures.

Public reporting also spurs higher performance. This year, publicly reporting commercial plans outperformed non-publicly reporting plans on 37 of 40 measures, and publicly reporting Medicaid plans scored higher than their non-publicly reporting counterparts on 33 of 38 measures (*Figure 9*).

FIGURE 8. HEDIS EFFECTIVENESS OF CARE MEASURES

ACCREDITED VS. NON-ACCREDITED PLANS: SELECT COMMERCIAL AVERAGES, 2005

MEASURE	ACCREDITED	UNACCREDITED	DIFFERENCE
Adolescent Immunization Status - Combo 2	56.5	44.2	12.2
Beta-Blocker Treatment After a Heart Attack	97.1	93.0	4.2
Breast Cancer Screening	72.6	70.1	2.5
Cervical Cancer Screening	82.6	79.0	3.7
Childhood Immunization Status - Combo 2	79.1	73.1	6.0
Comprehensive Diabetes Care - Poor HbA1c Control*	28.6	33.4	(4.8)
Controlling High Blood Pressure	69.9	64.9	5.0
Follow-up After Hospitalization for Mental Illness - 30 Days	77.0	70.4	6.7
Prenatal and Postpartum Care - Timeliness of Prenatal Care	92.9	88.2	4.7
Use of Appropriate Medications for Asthma - Combined Rate	90.3	88.5	1.8

* Lower rates are better for this measure; the negative difference signifies higher performance among NCQA-Accredited plans for this measure.

FIGURE 9. HEDIS EFFECTIVENESS OF CARE MEASURES

PUBLICLY REPORTING VS. NON-PUBLICLY REPORTING PLANS: SELECT COMMERCIAL AVERAGES, 2005

MEASURE	PUBLIC	NON-PUBLIC	DIFFERENCE
Adolescent Immunization Status - Combo 2	55.2	37.6	17.6
Beta-Blocker Treatment After a Heart Attack	96.9	91.8	5.1
Breast Cancer Screening	72.3	69.3	3.0
Cervical Cancer Screening	82.3	77.2	5.1
Childhood Immunization Status - Combo 2	78.9	65.3	13.6
Comprehensive Diabetes Care - Poor HbA1c Control*	29.0	35.7	(6.7)
Controlling High Blood Pressure	69.4	62.0	7.4
Follow-up After Hospitalization for Mental Illness - 30 Days	76.6	66.5	10.1
Prenatal and Postpartum Care - Timeliness of Prenatal Care	92.7	84.1	8.6
Use of Appropriate Medications for Asthma - Combined Rate	89.9	89.3	0.6

* Lower rates are better for this measure; the negative difference signifies higher performance among publicly reporting plans for this measure.

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The Centers for Medicaid & Medicare Services (CMS) requires that all Medicare Advantage managed care plans publicly report HEDIS data; NCQA requires all accredited plans to allow public reporting of their clinical quality data. Additionally, a number of states require that plans offering Medicaid managed care plans report HEDIS data.

ENROLLMENT SHIFTS PRESENT CHALLENGES FOR IMPROVEMENT

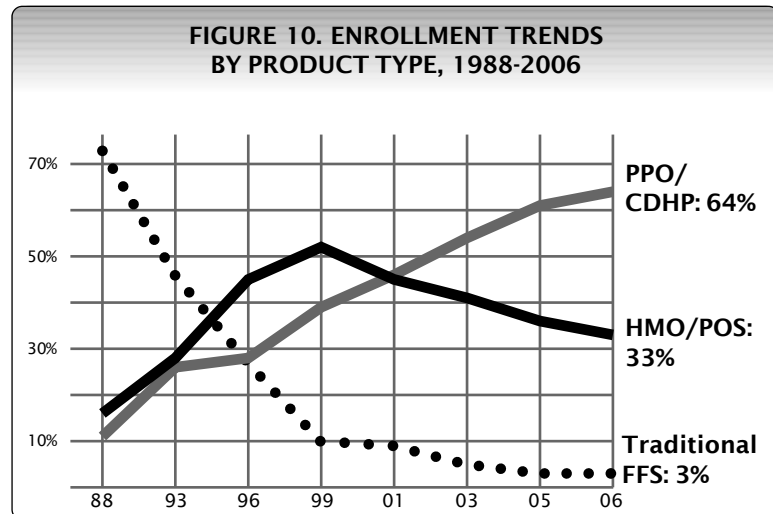
Americans enrolled in health maintenance organizations (HMOs) and point of service (POS) plans are significantly more likely to have information about the quality provided to their members. In 2005, more than 73 percent of HMO/POS plans operating in the U.S. submitted data on their performance, the highest proportion ever. But the proportion of Americans enrolled in such plans has declined from a high of 52 percent in 1999 to 33 percent today (*Figure 10*). At the same time, the number of people enrolled in preferred provider organizations (PPOs) and consumer-directed health plans (CDHPs) has grown to nearly 100 million Americans, or 64 percent of those who get their insurance through their employer.

The continuing high cost of coverage has created new barriers to Americans with insurance receiving needed care and increased the number of Americans without insurance. While the recent double-digit pace of health care inflation appears to have slowed, the cost of the average health insurance policy for a family of four topped \$10,000 a year in 2005. The need to focus on both cost and quality has never been greater.

MORE AMERICANS IN ACCOUNTABLE PLANS AS PPOS COME FORWARD

Troubled by these trends, NCQA in 2005 called on PPOs to voluntarily report their performance on HEDIS measures. A total of 80 commercial PPOs - providing care to 14 million Americans - reported clinical quality data in 2005. This has helped to reverse a three-year trend of fewer Americans in accountable health plans.

In 2006, this positive trend is expected to continue thanks to the leadership of the federal government. The Centers for Medicare & Medicaid Services (CMS) has required PPOs participating in the Medicare Advantage program to report HEDIS measures in 2006 and to begin public reporting in 2007. In addition, the Office of Personnel Management (OPM) has required PPOs and other fee-for-service plans serving federal employees to report five HEDIS measures in 2007 for public release in 2008.



Source: Kaiser Family Foundation/HRET Employer Health Benefits Survey, 2006.

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FIGURE 11. HEDIS EFFECTIVENESS OF CARE MEASURES - PPO

Select National Averages (Administrative Data), Commercial PPO Plans - 2005

MEASURE	RATE
Breast Cancer Screening	64.6
Chlamydia Screening (ages 16-20)	27.2
Chlamydia Screening (ages 21-26)	29.0
Chlamydia Screening (Combined rate)	28.1
Imaging Studies for Low Back Pain	72.9
Appropriate Treatment for Children with an Upper Respiratory Infection	83.3
Flu Shots for Adults	36.8

FIGURE 12. CAHPS MEMBER SATISFACTION MEASURES - PPO

Select National Averages, Commercial PPO Plans - 2005

MEASURE	RATE
Rating of Health Plan (8, 9 or 10)	63.5
Getting Needed Care	84.3
Getting Care Quickly	81.2
Customer Service	67.7
Claims Processing	90.1
Rating of Personal Doctor (8, 9 or 10)	78.6

Owing to the limited number of PPOs reporting and the fact that not all reported results for the entire HEDIS data set, the resulting set of reportable measure averages is limited (*Figures 11-12*). However, it is important to bear in mind that 2005 was the first year of HEDIS reporting for many of the PPO plans that submitted data to NCQA.

These plans that came forward in 2005 (*Figure 13*) are to be commended for being among the first in their sector of the health insurance industry to report HEDIS results. The implications for consumers and purchasers could not be more significant: more than six in ten Americans are enrolled in a PPO or similar type of health plan; until 2005, very little reliable quality data existed for this largest sector of the industry. The reporting efforts of these plans demonstrate that systematic collection and reporting of quality data is an activity in which PPOs and similar plans can engage in today.

As those PPOs that have led the market in reporting quality data expand and refine their efforts, and new PPOs come forward to report their data, it is to be expected that a broader set of measure results will become available in subsequent years. More importantly, as 10 years of measurement among managed care plans has shown, performance on those measures will improve substantially as quality improvement initiatives are implemented and data collection strategies refined. This holds significant promise for dramatic improvements in the care for, and quality of life of, tens of millions of Americans.

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FIGURE 13. PPO PLANS REPORTING HEDIS DATA IN 2005

Commercial PPO Plans - 2005

REPORTING PLANS, 2005*

Aetna Life Insurance Company - North East Region	CGLIC - CIGNA - North Carolina
Aetna Life Insurance Company - West Region	CGLIC - CIGNA - Ohio
Aetna Life Insurance Company - MidAtlantic Region	CGLIC - CIGNA - Oklahoma
Aetna Life Insurance Company - North Central Region	CGLIC - CIGNA - Oregon
Aetna Life Insurance Company - Southeast Southwest Region	CGLIC - CIGNA - Pennsylvania/Delaware
American Postal Workers Union Health Plan	CGLIC - CIGNA - Puerto Rico/Virgin Islands
Blue Cross and Blue Shield of Kansas City	CGLIC - CIGNA - South Carolina
Blue Cross and Blue Shield of Massachusetts, Inc.	CGLIC - CIGNA - South Dakota/North Dakota/Nebraska
Blue Cross and Blue Shield of New Mexico	CGLIC - CIGNA - Tennessee
Blue Cross and Blue Shield of North Carolina	CGLIC - CIGNA - Texas
Blue Cross Blue Shield of Delaware	CGLIC - CIGNA - Utah
Blue Cross of California	CGLIC - CIGNA - Vermont
Blue Shield of California	CGLIC - CIGNA - Virginia
BluePreferred	CGLIC - CIGNA - Washington
Cariten Insurance Company	CGLIC - CIGNA - West Virginia
CGLIC - CIGNA - Arizona	CGLIC - CIGNA - Wisconsin
CGLIC - CIGNA - Arkansas	Federal Plan 87
CGLIC - CIGNA - California	Foreign Service Benefit Plan
CGLIC - CIGNA - Colorado	Geisinger Indemnity Insurance Company
CGLIC - CIGNA - Connecticut	Government Employees Hospital Association, Inc.
CGLIC - CIGNA - Florida	Hawaii Medical Service Association (HMSA)
CGLIC - CIGNA - Georgia	Health Alliance Plan of Michigan
CGLIC - CIGNA - Illinois	HealthPartners, Inc.
CGLIC - CIGNA - Indiana	Horizon HMO
CGLIC - CIGNA - Iowa	Humana Health Plan of Texas, Inc.
CGLIC - CIGNA - Kansas	Humana Health Plan, Inc. - Kentucky
CGLIC - CIGNA - Kentucky	Humana Healthplan of Ohio, Inc.
CGLIC - CIGNA - Louisiana	Humana Insurance Company
CGLIC - CIGNA - Maryland/District of Columbia	Humana Medical Plan, Inc. - Florida
CGLIC - CIGNA - Massachusetts/Rhode Island	IBA Health and Life Assurance Company
CGLIC - CIGNA - Michigan	Keystone Health Plan West, Inc.
CGLIC - CIGNA - Minnesota	Medical Mutual of Ohio
CGLIC - CIGNA - Mississippi/Alabama	National Association of Letter Carriers Health Benefit Plan
CGLIC - CIGNA - Missouri	PacifiCare Life and Health Insurance Company/ PacifiCare Life Assurance Company
CGLIC - CIGNA - Montana/Wyoming/Idaho	PersonalCare Insurance of Illinois, Inc.
CGLIC - CIGNA - Nevada	QCC Insurance Company (Personal Choice)
CGLIC - CIGNA - New Hampshire/Maine	Rural Carrier Benefit Plan
CGLIC - CIGNA - New Jersey	Special Agents Mutual Benefit Association
CGLIC - CIGNA - New Mexico	Triple-S, Inc. (P.R.)
CGLIC - CIGNA - New York	Tufts Associated Health Maintenance Organization, Inc.

* List only includes participating PPOs that allowed their names to be published.

Revised 1/07 to reflect the 41 markets for which Connecticut General Life Insurance Company (CGLIC) submitted HEDIS® data.

TAKING OFF THE BLINDFOLD: TRANSPARENT HEALTH CARE FOR ALL AMERICANS

The success of the past 10 years cannot be taken for granted. Today, more than 100 million Americans who have health insurance still do *not* benefit from the transparency of quality measurement and reporting. And, of course, 47 million Americans who are uninsured have access to little or no information about the quality of the care they receive. NCQA proposes to expand in the coming years the breadth of health care accountability by calling for public quality reporting from a greater number of health plans. NCQA will also expand the scope of reporting by introducing new metrics of clinical quality and resource use. NCQA's recommendations for improving health care accountability follow.

- **Expand the community of accountable health plans.** A decade's worth of data has shown that plans that measure and report on their quality perform at a higher level than unaccountable plans. The introduction of PPO reporting demonstrates that many plans that have not traditionally

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engaged in quality measurement and reporting activities can do so today. This highlights the imperative that private and public customers of *all* health plans—including HMOs, point-of-service plans, PPOs, “high-deductible” plans and fee-for-service plans—demand more widespread collection and reporting of quality data to allow for informed comparisons and sound choices.

There are encouraging signs that purchasers—most visibly in the public sector—are demanding accountability from their health plans. In August, President Bush signed an Executive Order mandating that health plans administered or sponsored by the federal government measure the quality of their care and provide cost and quality data to their beneficiaries. Additionally, Medicare Advantage PPO plans will report HEDIS measures in 2006 and begin public reporting in 2007; the Office of Personnel Management will require PPOs and other fee-for-service plans serving federal employees to report five HEDIS measures beginning in 2007.

To help facilitate better comparisons among health plans, NCQA is developing a common set of quality standards to apply to all health plans. This initiative, to be unveiled in detail in 2007 and implemented in 2008, proposes to evaluate all health plans on a single set of standards and to allow consumers to compare plans based on a common set of criteria.

NCQA is currently reaching out to the stakeholders across the health care industry—including consumers, employers, health plans and government leaders—to gain input on how best to align accreditation requirements and drive greater improvement in the performance throughout the U.S. health care system.

- **Promote quality measurement and improvement at the provider level—and reward those who participate.** Promote quality measurement and improvement at the provider level and reward those who participate. Demand for provider-level quality measurement is growing among consumers, employers, and such public programs as Medicare. While some progress has occurred in recent years—especially in the hospital arena—precious little objective data exist to help consumers make sound decisions about their care. A number of efforts to measure provider quality are under way. NCQA plays a role in many of them.

Consensus is key to any measurement effort; to that end, NCQA has worked with a number of broad stakeholder groups to develop measures of care in the ambulatory setting. In 2005, NCQA collaborated with the American Medical Association's Physician Consortium for Performance Improvement to develop measures of ambulatory care quality that have gained endorsement from the National Quality Forum. This year, NCQA partnered with the AMA Consortium and Mathematica Policy Research in an ongoing effort to develop measures of quality among medical specialists.

The number and type of provider measures is growing, but provider-level measurement cannot answer all of the ills of the U.S. health care system. Many physicians practice by themselves or in small groups and do not have enough patients to accurately assess their performance. At the same time, many patients see two or more physicians and it is difficult to assess their care at the individual provider level.

Quality measurement at the health plan level remains a powerful tool to assess provider quality. In 2006, NCQA launched *Physician and Hospital Quality*, a voluntary component of its Quality Plus program, to evaluate how well plans measure and report on the quality of care delivered by the hospitals and physicians in their network. More than 50 health plans, covering more than 20 million Americans, have committed to participate.

EXECUTIVE SUMMARY

A powerful tool to drive improvement in physician quality is pay for performance—the linking of payment to quality. Notable efforts in this area include the Integrated Healthcare Association's P4P project in California and the employer-led Bridges to Excellence program, operating in nearly a dozen communities across the country. Further expansion of provider-level measurement coupled with plan measurement and pay for performance is needed.

Ultimately, the effort to measure at the provider level will be judged a success by the extent to which it helps consumers make better decisions about their care. As consumers migrate into plans that demand a higher level of participation, such as PPOs and consumer-directed plans, the need for useful, understandable information about physicians and hospitals will be brought into sharp relief.

- **Make the cost and quality of health care transparent for all Americans.** Ten years ago, systematic measurement of health care quality on a national level simply did not exist. Since then, we have made enormous progress in the effort to map the quality of America's health care. Yet many blind spots where no measurement activities occur persist.

Perhaps the most glaring of these blind spots is measurement of health care *value*: the assessment of both quality and costs. Although annual increases in health care premiums have dropped below double digits, costs have increased nonetheless, more than 56 percent over the last five years. As a result, the line item for health insurance has undergone a great deal of scrutiny in recent years in both family and corporate budgets—and while many workers and companies have assessed their health care spending, few have worked to determine how much *health* they're getting for their health care dollar.

To help determine the efficiency of health care providers, NCQA has developed the first generation of Relative Resource Use HEDIS measures. These measures of resource use, when combined with HEDIS quality measures, will provide for standardized, risk-adjusted comparisons of provider networks based on efficiency—in other words, they help make comparative assessments of how much health purchasers get for their health care dollar. The measures cover six major conditions: diabetes, cardiac conditions, asthma, cardiac obstructive pulmonary disorder (COPD), uncomplicated hypertension and acute low back pain. These six conditions collectively account for 50 to 60 percent of all direct medical expenses.

Expanded Accreditation, in concert with Relative Resource Use measures, are a first step towards providing American consumers with a more complete picture of both the quality and cost of health care and drive the improvement that is so sorely needed. But these initiatives are insufficient by themselves; their impact is dependent upon the support of consumers and purchasers, and the participation of health plans and providers. Spreading the benefits of transparency and accountability to the millions of Americans currently in the dark will require enormous political will and the concerted efforts of consumers, purchasers, health care providers and thought and policy leaders.

The past 10 years of data clearly demonstrate the transformative effects of quality measurement and reporting. Only through sustained, concerted calls for expansion can its tremendous promise for improving America's health be realized.



■ HEDIS MEASURES OF CARE

ABOUT HEDIS

The Health Plan Employer Data and Information Set (HEDIS) is a tool used by more than 90 percent of America's managed health care plans to measure performance on important dimensions of care and service. By providing objective clinical performance data measured against a detailed set of measure criteria, HEDIS provides purchasers and consumers the means to make informed comparisons among health plans on the basis of performance.

Employers, consultants and consumers use HEDIS data, along with accreditation information, to help them select the best health plan for their needs. HEDIS data are also the centerpiece of most health plan "report cards" that appear in national magazines and local newspapers.

HEDIS measures address a broad range of important health issues, including:

- Asthma
- Blood Pressure
- Cancer
- Cardiovascular Disease
- Childhood Immunizations
- Chronic Obstructive Pulmonary Disease (COPD)
- Depression
- Diabetes
- Osteoporosis
- Smoking

Included in HEDIS is the CAHPS 3.0H survey, which measures members' experiences with their care in areas such as claims processing, customer service, and getting needed care quickly.

To ensure the validity of HEDIS results, all data are rigorously audited by certified auditors, using a process designed by NCQA.

More information about national averages and trends are available in the Appendices.

NEW IN THIS YEAR'S REPORT

Life-of-measure trends: As part of our look back over the last decade of quality measurement, NCQA is including historical data for the entire life of each HEDIS measure. This provides the most complete picture of the trends over time for each measure, highlighting success stories and pointing out areas for further improvement

National Variation: Undesirable variation in care is a critical area for improvement. This report quantifies "national variation"—the difference between the top 10 percent and bottom 10 percent of health plans—for each measure to provide a more complete picture of the gaps in quality.

Top States: This report identifies for the first time the top-performing state on each measured aspect of care to provide specific insight into geographic variations in health care quality. Some states appear often on these lists. While some differences in results can be ascribed to economic or demographic factors, it is hard to understand why care would appear to be dramatically better in a handful of states. Only those states where five or more plans reported data were considered for inclusion.

CHOLESTEROL MANAGEMENT AFTER A HEART ATTACK

In 2005, health plans and auditors reported a number of false-positive members for the Cholesterol Management After a Heart Attack measure. After investigating the problem, NCQA determined that errors in the coding specifications artificially depressed rates on this measure across the board. As a result, results for this measure are not included in this year's report.

ADOLESCENT IMMUNIZATION STATUS

Rates improve substantially in key preventive measure.

Immunizations play a key role in protecting the health of adolescents. Safe and effective vaccines are available; however, some adolescents continue to be affected by vaccine-preventable diseases such as measles, mumps, rubella, hepatitis B and varicella (chicken pox). Immunizations successfully and inexpensively reduce the incidence of these dangerous and costly diseases.

ABOUT ADOLESCENT IMMUNIZATION

- Adolescent immunizations for hepatitis B, varicella and MMR are recommended by the Centers for Disease Control and Prevention.¹
- The hepatitis B vaccine is now a routine part of childhood vaccinations; new infections have declined from an average of 260,000 in the 1980s to about 60,000 in 2004, with the greatest decline among children and adolescents.²
- Approximately 340,000 children and adolescents aged 2-18 years have chronic illnesses, placing them at risk for influenza and pneumococcal diseases and their complications.³

MEASURE DEFINITION

The Adolescent Immunization Status measure estimates the percentage of enrolled adolescents who turn 13 years old and who had a second MMR, three hepatitis B and one VZV (chicken pox) vaccinations by their 13th birthday. The measure calculates a rate for each vaccine and one combination rate.

Note: Combination 1 was retired in 2005.

THE CASE FOR IMPROVEMENT

- Discontinuation of the measles vaccine in the U.S. would result in 3-4 million measles cases, 1,800 deaths, 1,000 cases of encephalitis and 80,000 cases of pneumonia per year.⁴
- Immunizations are one of the most cost-effective health intervention strategies available, saving society more than \$5 for each dollar spent.⁵
- The MMR vaccine saves \$16.34 in direct medical costs for every \$1 spent.⁶

RESULTS AND ANALYSIS		
COMMERCIAL		
Chicken Pox Vaccination:	60.2	up 4.5 pts
Nationwide variability: 52.1 pts Top State: Massachusetts, 89.9		
Hepatitis B Vaccination:	71.8	up 5.0 pts
Nationwide variability: 42.2 pts Top State: Massachusetts, 91.9		
Measles/Mumps/Rubella:	78.5	up 1.7 pts
Nationwide variability: 32.8 pts Top State: Connecticut, 91.6		
Combination 2 Rate:	53.7	up 6.8 pts
Nationwide variability: 54.7 pts Top State: Massachusetts, 85.5		
MEDICAID		
Chicken Pox Vaccination:	48.3	up 1.5 pts
Nationwide variability: 55.2 pts Top State: Michigan, 68.2		
Hepatitis B Vaccination:	63.6	up 2.5 pts
Nationwide variability: 47.9 pts Top State: New York, 81.4		
Measles/Mumps/Rubella:	70.7	down 0.9 pts
Nationwide variability: 47.0 pts Top State: New York, 83.9		
Combination 2 Rate:	42.4	up 4.3 pts
Nationwide variability: 56.1 pts Top State: Michigan, 61.5		

ADOLESCENT IMMUNIZATION STATUS		
COMBINATION 2: TRENDS, 1998 - 2005		
YEAR	COMMERCIAL	MEDICAID
2005	53.7	42.4
2004	46.9	38.1
2003	41.6	33.9
2002	31.2	24.8
2001	24.8	18.6
2000	18.4	13.2
1999	13.9	N/A
1998	10.5	N/A

ANTIDEPRESSANT MEDICATION MANAGEMENT

Rates show mixed results, have been largely stagnant over the life of the measure.

32.6 to 35.1 million adults in the United States—about 15 percent of the population—will suffer from major depressive disorder in their lifetime.¹ Depressive disorders are marked by a substantial and sustained disruption in a person's mood, behavior, physical health and thoughts. There are three main depressive disorders: major depression, dysthymia (a less severe, chronic form of depression) and bipolar disorder. In a given year, an estimated 17.1 million American adults suffer from a depressive disorder or depression.²

ABOUT ANTIDEPRESSANT MANAGEMENT

- 40 to 50 percent of primary care patients diagnosed with depression discontinue treatment within the first 3 months.³ Another 50 percent discontinue antidepressant medications during the maintenance phase of treatment.⁴
- Premature discontinuation of treatment is associated with higher rates of depression relapse and major depressive episodes.⁵

MEASURE DEFINITION

The following components of this measure assess different facets of successful pharmacological management of depression in patients 18 years and older.

Optimal Practitioner Contacts for Medication Management: The percentage of eligible members with a new diagnosis of depression treated with an antidepressant medication who received at least three follow-up office visits with a primary care physician or mental health provider in the 12-week acute treatment phase.

Effective Acute Phase Treatment: The percentage of eligible members who remained on antidepressant medication during the entire 12-week acute phase.

Effective Continuation Phase Treatment: The percentage of eligible members treated with antidepressant medication and remained on antidepressant medication for at least 6 months.

These indicators monitor the degree to which adult health plan members suffering from depression receive effective clinical management and pharmacological treatment of depression as outlined in the Agency for Healthcare Research and Quality's *Depression in Primary Care*.

RESULTS AND ANALYSIS		
COMMERCIAL		
Practitioner Contacts:	20.6	up 0.6 pts
Nationwide variability: 19.1 pts Top State: Connecticut, 33.4		
Acute Treatment:	61.4	up 0.5 pts
Nationwide variability: 15.9 pts Top State: Minnesota, 70.2		
Continuation Treatment:	45.0	up 0.7 pts
Nationwide variability: 16.1 pts Top State: Minnesota, 57.4		
MEDICARE		
Practitioner Contacts:	11.8	down 0.1 pts
Nationwide variability: 14.1 pts Top State: New York, 18.0		
Acute Treatment:	54.9	down 1.3 pts
Nationwide variability: 27.5 pts Top State: Pennsylvania, 60.6		
Continuation Treatment:	41.0	down 1.1 pts
Nationwide variability: 29.2 pts Top State: Pennsylvania, 46.7		
MEDICAID		
Practitioner Contacts:	20.7	up 1.3 pts
Nationwide variability: 25.0 pts Top State: New York, 22.8		
Acute Treatment:	46.0	down 0.4 pts
Nationwide variability: 26.2 pts Top State: Minnesota, 57.5		
Continuation Treatment:	30.3	down 0.2 pts
Nationwide variability: 28.2 pts Top State: Minnesota, 41.3		

ANTIDEPRESSANT MEDICATION MANAGEMENT

THE CASE FOR IMPROVEMENT

- Major depressive disorder is the leading cause of disability in the United States and in market economies worldwide.⁶
- Depression has the highest medical benefit costs for all behavioral conditions and results in more days of disability than chronic medical conditions such as heart disease, hypertension, diabetes and lower back pain.
- Workers with depression cost employers in excess of \$30 billion per year in lost productive time compared to the expected cost in workers without depression.⁷
- Total medical costs are reduced in patients remaining on antidepressants for at least 90 days.⁸
- One study showed patients discontinuing antidepressant treatment within 6 months accumulated \$432 in higher medical costs per year than adherent patients.⁹
- The overall health bills of workers who report depression are 70 percent higher than those of employees who do not.¹⁰
- Chronically ill patients with co-morbid depression are associated with lower survival rates, lower treatment compliance and lower quality of life.¹¹
- Adults who are depressed are less physically healthy, less socially active and less satisfied with their lives than adults who are not depressed.¹²
- Nearly 1 in 6 people with severe, untreated depression commits suicide.¹³
- Suicide rates increase with age and are very high among those 65 years and older. Most elderly suicide victims are seen by their primary care provider a few weeks prior to their suicide attempt and diagnosed with their first episode of mild to moderate depression.¹⁴
- Depression affects people of all ages, but often first occurs in a person's late twenties. Elderly people suffer from high rates of depression.¹⁵

OPTIMAL PRACTITIONER CONTACTS

TRENDS, 1998 - 2005

YEAR	COMMERCIAL	MEDICARE	MEDICAID
2005	20.6	11.8	20.7
2004	20.0	11.9	19.4
2003	20.3	10.5	18.0
2002	19.2	10.8	18.2
2001	19.8	11.9	19.0
2000	N/A	N/A	N/A
1999	21.4	N/A	N/A
1998	22.7	N/A	N/A

EFFECTIVE ACUTE PHASE TREATMENT

TRENDS, 1998 - 2005

YEAR	COMMERCIAL	MEDICARE	MEDICAID
2005	61.4	54.9	46.0
2004	60.9	56.3	46.4
2003	60.7	53.3	46.2
2002	59.8	52.1	47.4
2001	56.9	51.3	45.5
2000	N/A	N/A	N/A
1999	58.8	N/A	N/A
1998	54.3	N/A	N/A

EFFECTIVE CONTINUATION PHASE TREATMENT

TRENDS, 1998 - 2005

YEAR	COMMERCIAL	MEDICARE	MEDICAID
2005	45.0	41.0	30.3
2004	44.3	42.1	30.5
2003	44.1	39.2	29.3
2002	42.8	37.7	32.3
2001	40.1	36.8	30.0
2000	N/A	N/A	N/A
1999	42.1	N/A	N/A
1998	38.0	N/A	N/A

APPROPRIATE TESTING FOR CHILDREN WITH PHARYNGITIS

Rates decline among commercial and Medicaid plans.

Pharyngitis, or sore throat, is a common diagnosis in children. An estimated 10 percent of all children who see a medical care provider will be evaluated for pharyngitis annually.¹ The majority of pharyngitis cases in children are caused by viral illnesses. While antibiotics are needed to treat *bacterial* pharyngitis, they are not useful for treating *viral* pharyngitis. Before antibiotics are prescribed, a simple diagnostic test needs to be run to validate a bacterial origin. Unfortunately, a diagnostic test is not always completed before antibiotics are prescribed. Inappropriate use of antibiotics is costly, ineffective and contributes to the development of drug-resistant bacterial strains.

ABOUT PHARYNGITIS TESTING

- Only 35 percent of pharyngitis cases in children are caused by bacteria. Pharyngitis is most commonly caused by Group A streptococcus (GAS), commonly known as strep throat.²
- Antibiotic use has been proven to be directly linked to the prevalence of antibiotic resistance in the community. Promoting judicious use of antibiotics is important to reduce levels of antibiotic resistance.³
- Physicians perform tests for strep throat in 51 percent of pediatric pharyngitis cases.⁴
- A 2003 study found testing for strep throat to be completed in 73 percent of all pharyngitis cases and in 81 percent of cases where antibiotics were prescribed. Of concern, in 36 percent of cases where a patient received antibiotics and underwent a test for strep throat, the test came back negative.⁵

MEASURE DEFINITION

This measure estimates the percentage of children 2 - 18 years of age who were diagnosed with pharyngitis, prescribed an antibiotic and who received a GAS, or strep, test for the episode.

RESULTS AND ANALYSIS		
COMMERCIAL		
Testing rate:	69.7	down 2.9 pts
Nationwide variability: 31.1 pts		
Top State: Georgia, 85.7		
MEDICAID		
Testing rate:	52.0	down 2.4 pts
Nationwide variability: 54.8 pts		
Top State: Tennessee, 65.6		

APPROPRIATE TESTING FOR CHILDREN WITH PHARYNGITIS		
TRENDS, 2003 - 2005		
YEAR	COMMERCIAL	MEDICAID
2005	69.7	52.0
2004	72.6	54.4
2003	70.7	53.8

THE CASE FOR IMPROVEMENT

- In a recent nationwide physician survey, 42 percent reported that they would start antibiotic treatment for children with pharyngitis before knowing the results and continue with treatment despite a negative strep test.⁶
- 7.3 million children ages 3-17 visit primary care physicians and emergency rooms with a sore throat. In 53 percent of these visits antibiotics were prescribed.⁷
- The Office of Technology Assessment (OTA) calculated the direct cost of antibiotic resistance for hospitals at \$1.9 billion in 2001 dollars.⁸

APPROPRIATE TREATMENT FOR CHILDREN WITH AN UPPER RESPIRATORY INFECTION

Medicaid plans post gains; inappropriate treatment leads to antibiotic resistance.

In the course of a year, Americans will suffer an estimated 1 billion upper respiratory infections (URIs), commonly known as colds.¹ Colds are most prevalent among children due to their relative lack of exposure to prior colds and to their high contact with other children. Consequently, children have an estimated six to ten colds a year. Existing clinical guidelines do not support the use of antibiotics because the cause of the common cold is often viral. However, research indicates antibiotics are often prescribed in children with URIs.²

ABOUT TREATMENT FOR UPPER RESPIRATORY INFECTIONS

- Studies have found as many as 22 percent of office visits for common colds result in an antibiotic prescription for children under 15.³
- Between 1996 and 2001, four percent of all U.S. children age 1-14 were prescribed antibiotics to treat an URI.⁴
- Inappropriate treatment of the common cold with antibiotics increases drug resistance, decreasing the effectiveness of currently available pharmaceuticals against bacteria and increasing an individual's risk of becoming infected with a drug-resistant bacteria.⁵

MEASURE DEFINITION

This measure estimates the percentage of children 3 months to 18 years of age who were diagnosed with an upper respiratory infection (URI) and did not receive an antibiotic prescription within 3 days of the visit. Higher rates indicate more appropriate use of antibiotics.

THE CASE FOR IMPROVEMENT

- Appropriate treatment for URI will decrease the number of individuals at risk for complications arising from the side effects of antibiotics, which include fevers, rashes, drug allergies, prolonged hospital stays and even death.
- Appropriate antibiotic use will help lessen the spread of antibiotic resistance, prolonging the effectiveness of currently available antibiotics and decreasing the risk of infection by a drug-resistant pathogen.
- In 1998, \$227 million was spent for inappropriate treatment for URIs in 7.4 million patients.⁶
- Appropriate antibiotic use will decrease the need to develop new and often very expensive antibiotic drugs to replace those that have become ineffective due to resistance. It will also decrease the probability of developing infections for which no effective antibiotics currently exist.

RESULTS AND ANALYSIS

COMMERCIAL

Treatment rate: **82.9** up 0.2 pts
 Nationwide variability: 17.1 pts
 Top State: **Washington, 90.7**

MEDICAID

Treatment rate: **82.5** up 2.6 pts
 Nationwide variability: 20.8 pts
 Top State: **Colorado, 91.1**

APPROPRIATE TREATMENT FOR CHILDREN WITH AN UPPER RESPIRATORY INFECTION

TRENDS, 2003 - 2005

YEAR	COMMERCIAL	MEDICAID
2005	82.9	82.5
2004	82.7	79.9
2003	80.8	80.1

BETA-BLOCKER TREATMENT AND PERSISTENCE OF BETA-BLOCKER TREATMENT AFTER A HEART ATTACK

Top 10 percent of plans score 100 percent on important aspect of cardiac care.

An estimated 7.2 million Americans over 20 have a history of myocardial infarction (MI), or heart attack.¹ The American Heart Association and the American College of Cardiology strongly recommend beta-blocker treatment following an MI to reduce mortality during its acute and long-term management.² The dramatic rise in beta-blocker treatment rates—more than 30 percentage points since 1996—is proof that sustained attention and effective initiatives can save lives and improve quality of life.

ABOUT BETA-BLOCKER TREATMENT

- Over a million heart attacks occur in the United States each year, resulting in 515,000 deaths, one half of those who die do so within 1 hour of symptom onset³
- About half of all heart attack survivors are readmitted to the hospital within one year of the event; reoccurring heart attack rates remain exceedingly high.⁴
- Cardiovascular diseases are the single largest killer of Americans. Every 26 seconds, an American suffers a coronary event; about every minute, an American dies from one.⁵
- If all heart attack survivors received timely beta-blocker therapy, an estimated 1,500 deaths could be averted each year. If they continued treatment for twenty years, 4,300 fewer chronic heart disease deaths and 3,500 fewer heart attacks would result.⁶

MEASURE DEFINITION

The Beta-Blocker Treatment After a Heart Attack measure estimates the percentage of members 35 years of age and older who were hospitalized and discharged from the hospital after surviving a heart attack and who received a prescription for beta blockers upon discharge.

The Persistence of Beta-Blocker Treatment After a Heart Attack measure estimates the percentage of members 35 years of age and older who were hospitalized and discharged from the hospital after surviving a heart attack and who received persistent beta blocker treatment for six months after discharge.

RESULTS AND ANALYSIS	
COMMERCIAL	
Beta-Blocker Treatment:	96.6 up 0.5 pts
Nationwide variability: 8.1 pts	
Top State: Connecticut, 99.4	
Beta-Blocker Persistence:	70.3 up 2.9 pts
Nationwide variability: 23.0 pts	
Top State: Massachusetts, 78.9	
MEDICARE	
Beta-Blocker Treatment:	93.8 down 0.2 pts
Nationwide variability: 16.9 pts	
Top State: Pennsylvania, 98.8	
Beta-Blocker Persistence:	65.4 up 4.1 pts
Nationwide variability: 37.5 pts	
Top State: Massachusetts, 75.3	
MEDICAID	
Beta-Blocker Treatment:	86.1 up 1.3 pts
Nationwide variability: 40.9 pts	
Top State: Michigan, 96.0	
Beta-Blocker Persistence:	69.8 down 0.1 pts
Nationwide variability: 29.4 pts	
Top State: Pennsylvania, 71.0	

BETA-BLOCKER TREATMENT AND PERSISTENCE OF BETA-BLOCKER TREATMENT AFTER A HEART ATTACK

THE CASE FOR IMPROVEMENT

- The estimated direct and indirect costs associated with heart disease in 2006 is \$258.5 billion; indirect costs—such as missed work days and decreased productivity—account for \$110.4 billion.⁷
- Several clinical studies have demonstrated that use of beta-blockers following a heart attack decreases the likelihood of a recurrent heart attack and other cardiovascular mortality, increasing the probability of long-term survival up to 40 percent.⁸⁻¹⁰
- Although beta-blockers are very frequently prescribed in the acute phase after a heart attack, adherence to beta-blocker therapy declines significantly within the first year.¹¹
- Treating a heart failure patient with beta-blockers saves nearly \$4,000 in hospital bills over a 5-year period.¹²

BETA-BLOCKER TREATMENT AFTER A HEART ATTACK			
TRENDS, 1996 - 2005			
YEAR	COMMERCIAL	MEDICARE	MEDICAID
2005	96.6	93.8	86.1
2004	96.2	94.0	84.8
2003	94.3	92.9	83.5
2002	93.5	93.0	90.1
2001	92.5	92.9	87.9
2000	89.4	89.3	82.7
1999	85.0	N/A	N/A
1998	79.7	N/A	N/A
1997	74.1	N/A	N/A
1996	62.6	N/A	N/A

PERSISTENCE OF BETA-BLOCKER TREATMENT AFTER A HEART ATTACK			
TRENDS, 2004 - 2005			
YEAR	COMMERCIAL	MEDICARE	MEDICAID
2005	70.3	65.4	69.8
2004	67.4	61.3	69.9

BREAST CANCER SCREENING

7 in 10 diagnosed with breast cancer have no identifiable risk factors.

Breast cancer is one of the most common types of cancer among American women. In 2006, an estimated 214,000 new cases will be identified. It is the second leading cause of cancer death for women, with an estimated 41,430 deaths this year.¹ Fortunately, breast cancer mortality in women has been recently declining overall, due in part to early detection by screening with mammograms.²

While a widely accepted screening tool, debate still exists on the effectiveness of mammography. A review in 2000 of mammogram screening trials concluded regular mammography screening did not reliably show a decrease in mortality.³ While these findings have generally been discounted, current mammography debate topics include age of first and last screening, screening interval, screening of high-risk younger women and screening accuracy.⁴ NCQA will continue to monitor developments and revise this measure as scientific and clinical consensus is achieved.

ABOUT BREAST CANCER SCREENING

- A woman living in the United States has a 1 in 7 lifetime risk of developing breast cancer.⁵
- A mammogram can detect breast cancer 1 to 3 years before a woman can feel the lump; studies indicate that mammography screening for women 50 and older can reduce breast cancer mortality by 30 percent.⁶
- Mammography can detect approximately 85 percent of breast cancers.⁷
- The greatest incidence of breast cancer occurs in women before menopause.⁸

MEASURE DEFINITION

This measure estimates the percentage of women aged 50-69 enrolled in a health plan who had at least one mammogram in the past 2 years.

- *Note:* For HEDIS 2006, data for this measure were collected through administrative data sources only. In the past, data were collected through a combination of administrative and medical record data.

Due to the change in specifications, a slight decrease in performance rates is expected.

RESULTS AND ANALYSIS		
COMMERCIAL		
Screening Rate:	72.0	untrendable*
Nationwide variability: 14.9 pts		
Top State: New Hampshire, 80.5		
MEDICARE		
Screening Rate:	71.6	untrendable*
Nationwide variability: 24.0 pts		
Top State: Massachusetts, 83.1		
MEDICAID		
Screening Rate:	53.9	untrendable*
Nationwide variability: 22.6 pts		
Top State: New York, 63.0		

BREAST CANCER SCREENING			
TRENDS, 1996 - 2005			
YEAR	COMMERCIAL	MEDICARE	MEDICAID
2005	72.0	71.6	53.9
2004*	73.4	74.0	54.1
2003	75.3	74.0	55.9
2002	74.9	74.5	55.8
2001	75.5	75.3	55.1
2000	74.5	73.9	54.9
1999	73.4	N/A	N/A
1998	72.1	N/A	N/A
1997	71.1	N/A	N/A
1996	70.4	N/A	N/A

* Results untrendable due to changes to measure specifications.

BREAST CANCER SCREENING

THE CASE FOR IMPROVEMENT

- The direct and indirect costs associated with breast cancer in the U.S. are estimated to be between \$2.35 and \$3.13 billion annually. Of that total, almost \$2 billion is spent on late stage breast cancer treatment.⁹
- More than 70 percent of women diagnosed with breast cancer have no identifiable risk factors, such as a family history of breast cancer that might alert their doctor to potential breast cancer without a mammogram.¹⁰
- Women whose breast cancer is detected early are more likely to be eligible for less intensive therapy (e.g., lumpectomy rather than mastectomy) and experience better long-term outcomes.
- As with many cancers, breast cancer detected in its earliest, pre-invasive stage costs significantly less than cancer detected in later stages. In the United States breast cancer treatment costs nearly \$7 billion per year.¹¹
- Cancers that are detected early require less extensive medical treatment and far fewer days away from work.¹²

CERVICAL CANCER SCREENING

Screening rose to 81.8 percent in 2005; early treatment cure rate nearly 100 percent.

Cervical cancer is one of the most successfully treatable cancers when detected early. Increased screening has resulted in a major decline in mortality from cervical cancer over the past few decades; screening is estimated to reduce cervical cancer over 80 percent.¹ Unfortunately, a significant number of women still develop the disease and are diagnosed at a late cancer stage. In 2006, an estimated 9,700 new cases of cervical cancer will be diagnosed and 3,700 deaths will be attributed to the disease.² Most—if not all—of these deaths could be avoided with timely and effective screening and treatment.

ABOUT CERVICAL CANCER SCREENING

- About 50 million Pap smears are performed annually in the United States.³
- The American Cancer Society, the National Cancer Institute, the American Medical Association and others unanimously recommend that all women who are sexually active or have reached age 18 have Pap tests.
- The risk of developing invasive cervical cancer is 3 to 10 times greater in women who have not been screened.⁴
- With screening, a woman's lifetime risk of cervical cancer is estimated to be only 0.7 percent; without screening, the risk rises to 2.5 percent.⁵

MEASURE DEFINITION

The Cervical Cancer Screening rate estimates the percentage of women aged 21-64 enrolled in a health plan who had at least one Pap test in the past three years.

THE CASE FOR IMPROVEMENT

- Early detection is critical. Cervical cancer is a silent cancer; it rarely causes pain or noticeable symptoms until it is so advanced that it is unresponsive to treatment.⁶
- The cervical cancer cure rate is close to 100 percent if treated in an early stage.
- A majority of cases of invasive cervical cancer occur in women who are not adequately screened.^{7,8} Clinicians, hospitals and health plans should develop systems to identify and screen the subgroup of women who have had no screening or inadequate past screening.

RESULTS AND ANALYSIS

COMMERCIAL

Treatment rate: **81.8** up 0.9 pts
 Nationwide variability: 12.2 pts
 Top State: **New Hampshire, 88.9**

MEDICAID

Treatment rate: **65.0** up 0.3 pts
 Nationwide variability: 26.8 pts
 Top State: **New York, 74.7**

CERVICAL CANCER SCREENING

TRENDS, 1996 - 2005

YEAR	COMMERCIAL	MEDICAID
2005	81.8	65.0
2004	80.9	64.7
2003	81.8	64.0
2002	80.5	62.4
2001	80.0	61.1
2000	78.1	59.9
1999	71.8	N/A
1998	69.8	N/A
1997	70.9	N/A
1996	70.5	N/A

CHILDHOOD IMMUNIZATION STATUS

Many rates improve significantly; vaccines save \$43 billion per year.

Immunizations are one of the safest and most effective ways to protect children from a variety of potentially serious childhood diseases. While immunization coverage is high among children in the United States, it is vital to maintain these levels to eliminate the threat of vaccine-preventable diseases. Currently, more than 20 percent of 2-year-olds within the United States are still missing one or more recommended immunizations.

ABOUT CHILDHOOD IMMUNIZATION

- Childhood immunizations are responsible for the control of many infectious diseases that were once common, including polio, measles, diphtheria, pertussis (whooping cough), rubella (German measles), mumps, tetanus and Haemophilus influenzae type b (Hib).¹
- Before vaccinations were common, Hepatitis B infected 24,000 infants and children each year.²
- Pneumococcal disease, the main cause of bacterial meningitis, is found most frequently among children under 2, with a high mortality rate.³
- While the reported cases of vaccine-preventable diseases have significantly declined, they still do occur. During 1998-2000, 824 cases of Hib were reported.⁴

MEASURE DEFINITION

These measures estimate the percentage of children who turned 2 years old during the measurement year and received the following vaccinations by their second birthday:

1. Four doses DTP or DTaP (diphtheria-tetanus)
2. Three doses OPV or IPV (polio)
3. One dose MMR (measles-mumps-rubella)
4. Three doses Hib (*Haemophilus influenzae* type b)
5. Three doses hepatitis B
6. One dose VZV (chicken pox)
7. Four doses pneumococcal conjugate*
8. Combination 2 (combination of 1-6)
9. Combination 3 (combination of 1-7)*

*First year measures. Combination 1 was retired after 2005.

THE CASE FOR IMPROVEMENT

- One fourth of lifelong hepatitis B virus infections, which can lead to liver failure and death, result from infections in infants and young children.⁵
- Childhood immunizations of DTaP, Hib, IPV, MMR, hepatitis B and varicella vaccines save \$9.9 billion in direct medical costs and \$43.3 billion in indirect costs.⁶
- A child with chicken pox misses an average of 5-6 days of school; adult caretakers miss an average of 3-4 days of work.⁷
- Every dollar spent on Hib vaccine saves \$1.40 in direct medical costs and \$2.00 in indirect costs; every dollar spent on hepatitis B vaccine saves 50 cents in direct medical costs and \$3.10 in indirect costs; and every dollar spent on varicella vaccine saves 90 cents in direct medical costs and \$5.40 in indirect costs.⁸
- Discontinuing Hib immunization would result in approximately 20,000 cases per year of invasive disease, with 600 associated deaths.⁹

CHILDHOOD IMMUNIZATION STATUS

RESULTS AND ANALYSIS		
COMMERCIAL		
Combination 2 Rate:	77.7	up 5.2 pts
Nationwide variability: 19.5 pts Top State: Connecticut, 85.1		
Combination 3 Rate:	53.1	new measure
Nationwide variability: 25.7 pts Top State: Pennsylvania, 65.6		
Diphtheria/Tetanus:	86.1	up 0.2 pts
Nationwide variability: 12.0 pts Top State: New Hampshire, 92.9		
Polio Vaccination:	90.3	up 0.2 pts
Nationwide variability: 10.1 pts Top State: New Hampshire, 95.4		
Measles/Mumps/Rubella:	93.0	up 0.7 pts
Nationwide variability: 6.7 pts Top State: New Hampshire, 95.9		
Hib Vaccination:	92.9	up 5.1 pts
Nationwide variability: 9.1 pts Top State: New Hampshire, 97.0		
Hepatitis B Vaccination:	90.0	up 2.8 pts
Nationwide variability: 12.4 pts Top State: Michigan, 95.7		
Chicken Pox Vaccination:	89.9	up 2.4 pts
Nationwide variability: 10.2 pts Top State: North Carolina, 93.7		
Pneumococcal conjugate:	58.8	new measure
Nationwide variability: 23.5 pts Top State: Massachusetts, 70.9		

RESULTS AND ANALYSIS		
MEDICAID		
Combination 2 Rate:	70.4	up 7.3 pts
Nationwide variability: 29.0 pts Top State: Michigan, 77.4		
Combination 3 Rate:	42.5	new measure
Nationwide variability: 32.7 pts Top State: Maryland, 52.0		
Diphtheria/Tetanus:	76.8	up 1.2 pts
Nationwide variability: 26.6 pts Top State: Washington, 82.2		
Polio Vaccination:	84.5	down 0.3 pts
Nationwide variability: 21.7 pts Top State: Washington, 91.1		
Measles/Mumps/Rubella:	89.5	up 1.4 pts
Nationwide variability: 13.8 pts Top State: Maryland, 93.2		
Hib Vaccination:	86.7	up 7.6 pts
Nationwide variability: 20.4 pts Top State: Washington, 93.9		
Hepatitis B Vaccination:	85.2	up 3.3 pts
Nationwide variability: 23.3 pts Top State: Michigan, 93.2		
Chicken Pox Vaccination:	86.4	up 1.7 pts
Nationwide variability: 18.8 pts Top State: California, 91.8		
Pneumococcal conjugate:	46.6	new measure
Nationwide variability: 38.2 pts Top State: Pennsylvania, 58.3		

CHILDHOOD IMMUNIZATION STATUS		
COMBINATION 2: TRENDS, 1997 - 2005		
YEAR	COMMERCIAL	MEDICAID
2005	77.7	70.4
2004	72.5	63.1
2003	69.8	58.5
2002	62.5	53.2
2001	57.6	52.5
2000	53.5	47.2
1999	47.5	N/A
1998	37.0	N/A
1997	29.6	N/A

CHLAMYDIA SCREENING

While improving for sixth consecutive year, screening rates remain low.

Chlamydia is the most commonly reported sexually transmitted disease (STD) in the United States.¹ Untreated chlamydia increases a woman's risk for pelvic inflammatory disease (PID), infertility, ectopic pregnancy and HIV infection. Newborn children of untreated women are at greater risk for conjunctivitis, pneumonia and death.² Chlamydia screening is extremely important because most infected women have no discernible symptoms and because the disease is easily treated with antibiotics.

ABOUT CHLAMYDIA SCREENING

- A woman with chlamydia is up to five times more likely to acquire HIV if exposed.³
- In 2004, over 929,000 chlamydial infections were reported in the United States.⁴
- A study of pregnant women found 9 percent to have asymptomatic chlamydia, showing the importance of chlamydia screening during pregnancy.⁵

MEASURE DEFINITION

The chlamydia screening measure estimates the percentage of sexually active female plan members 16-25 years of age who had at least one test for chlamydia during the measurement year.

THE CASE FOR IMPROVEMENT

- Broad-based screening programs have decreased chlamydia and PID in young women by 60 percent, lowering hospitalization and complication rates.⁶
- 20 to 25 percent of newborns exposed to their mother's chlamydia develop conjunctivitis.
- Detection and treatment also often prevent such complications as PID, tubal infertility, ectopic pregnancy and chronic pelvic pain.⁷
- *C. trachomatis* infections are the most common bacterial STD, affecting an estimated 4 million Americans at an annual cost of \$2.4 billion.^{8,9}
- Screening all sexually active women 18-24 would prevent about 140,000 cases of PID each year and save \$45 for every woman screened.¹⁰

RESULTS AND ANALYSIS		
COMMERCIAL		
Screening, ages 16-20:	34.4	up 1.8 pts
Nationwide variability: 19.2 pts		
Top State: District of Columbia, 42.4		
Screening, ages 21-25:	35.2	up 3.5 pts
Nationwide variability: 23.9 pts		
Top State: California, 44.7		
MEDICAID		
Screening, ages 16-20:	49.1	up 3.3 pts
Nationwide variability: 29.1 pts		
Top State: New York, 53.0		
Screening, ages 21-25:	52.4	up 3.4 pts
Nationwide variability: 31.6 pts		
Top State: Michigan, 56.9		

CHLAMYDIA SCREENING: AGES 16 - 20		
TRENDS, 1999 - 2005		
YEAR	COMMERCIAL	MEDICAID
2005	34.4	49.1
2004	32.6	45.9
2003	30.4	44.3
2002	26.7	41.3
2001	24.5	39.6
2000	23.6	37.4
1999	18.5	N/A

CHLAMYDIA SCREENING: AGES 21 - 25		
TRENDS, 1999 - 2005		
YEAR	COMMERCIAL	MEDICAID
2005	35.2	52.4
2004	31.7	49.0
2003	29.1	46.0
2002	24.5	41.9
2001	22.1	41.1
2000	20.7	37.9
1999	16.0	N/A

COLORECTAL CANCER SCREENING

Commercial rates rise dramatically as screening rates continue to improve

Colorectal cancer is the third most common cancer among both men and women in the United States; more than 148,000 new cases of colorectal cancer will be diagnosed in 2006.¹ Colorectal cancer is second only to lung cancer in terms of mortality: as many as 55,000 Americans will die from the disease in 2006.² Colorectal cancer develops slowly and often without early-stage symptoms. More than 9 in 10 whose colorectal cancer is detected and treated early live five years or longer.³ Less than one third of colorectal cancer cases are associated with a family history of the disease⁴, highlighting the importance of early screening efforts.

ABOUT COLORECTAL CANCER SCREENING

- Colorectal cancer screening rates are lower than those for other common cancers.
- According to the CDC's Behavior Risk Factor Surveillance Survey, only 26.5 percent of respondents had received a fecal occult blood test (FOBT) within the past two years; only 43.3 percent of respondents had ever received a sigmoidoscopy or colonoscopy.⁵
- A polyp can be removed during screening for about \$1,500, but if the patient is not diagnosed until the disease has metastasized, the patient's chance of survival drops to 10 percent and the costs of care can add up to \$58,000 over the patient's lifetime.⁶
- Place of birth, ethnicity, education, health coverage, smoking, gender and body mass index all have been shown to affect prevalence of colorectal cancer screening rates.^{7,8}

MEASURE DEFINITION

The colorectal cancer screening measure estimates the percentage of adults 50-80 years of age who have had appropriate screening for colorectal cancer. The screening criteria can be met with any of the four tests below:

- FOBT during the measurement year;
- Flexible sigmoidoscopy during the measurement year or the four years prior;
- Double contrast barium enema during the measurement year or the four years prior;
- Colonoscopy during the measurement year or the nine years prior.

RESULTS AND ANALYSIS

COMMERCIAL

Screening rate: **52.3** up 3.3 pts
 Nationwide variability: 22.6 pts
 Top State: **New Hampshire, 65.2**

MEDICARE

Screening rate: **53.9** up 1.3 pts
 Nationwide variability: 31.5 pts
 Top State: **Massachusetts, 70.7**

COLORECTAL CANCER SCREENING

TRENDS, 2003 - 2005

YEAR	COMMERCIAL	MEDICARE
2005	52.3	53.9
2004	49.0	52.6
2003	47.4	49.5

THE CASE FOR IMPROVEMENT

- If detected early (stage 1), 85-95 percent of patients with colorectal cancer can be cured; if detected in a later stage, the average 5-year survival rate is 50 percent or less.⁹
- An annual FOBT plus sigmoidoscopy every 5 years can reduce cancer-related mortality by 80 percent compared with no screening.¹⁰
- Colorectal cancer treatment costs Americans over \$6.5 billion per year,¹¹ second only to breast cancer treatment (\$6.6 billion).¹²
- When detected early, treatment of colorectal cancer treatment costs about \$10,000; late-stage treatment can cost up to ten times as much.¹³

COMPREHENSIVE DIABETES CARE

Rates level off; poor HbA1c control rates rise for Medicare, Medicaid

Diabetes is the sixth leading cause of death from disease in the United States.¹ Over 14 million Americans have been diagnosed with diabetes; an additional 6 million Americans suffer from undiagnosed diabetes.² Much of the burden of illness and cost of diabetes treatment is attributed to potentially preventable long-term complications such as heart disease, blindness, kidney disease and stroke.³ Appropriate and timely screening and treatment can significantly reduce this disease burden.

ABOUT DIABETES

- In the US, diabetes accounts for 45 percent of new cases of kidney failure.⁴
- Diabetic retinopathy causes 12,000 to 24,000 new cases of blindness annually.⁵
- Diabetics are more likely to die from acute illnesses such as pneumonia or influenza than people who do not have diabetes.⁶
- For every 1 percent reduction in blood glucose levels (HbA1c blood tests), the risk of developing eye, kidney/ESRD and nerve disease is reduced by 40 percent.⁷
- Every 10 millimeters of mercury reduction in systolic blood pressure in diabetics results in a 12 percent reduction in diabetic complications.⁸
- Nearly two-thirds of the 20 million Americans living with diabetes will die from a heart attack or stroke.⁹

MEASURE DEFINITION

Comprehensive Diabetes Care measures assess several important features of effective, multi-risk factor management of diabetes and its potential complications. The measures estimate the percentage of health plan members 18-75 years of age with diabetes (type 1 and type 2) who had each of the following:

- Hemoglobin A1c (HbA1c) testing;
- Poorly controlled HbA1c (greater than 9.0)*
- eye exam (retinal) performed
- a serum cholesterol level (LDL-C) screening;
- LDL-C controlled to less than 130 mg/dL;
- LDL-C controlled to less than 100 mg/dL; and
- kidney disease (nephropathy) monitored

* Lower rates are better for this measure.

THE CASE FOR IMPROVEMENT

- Improved control of cholesterol can reduce cardiovascular complications 20 to 50 percent.¹⁰
- Diabetes patients who maintain near normal HbA1c levels can gain (on average) an extra 5 years of life, 8 years of sight and 6 years free from kidney disease.¹¹
- A large long-term clinical trial found that lowering blood glucose reduced the risk of eye disease by 78 percent, kidney disease by 50 percent and nerve disease by 60 percent.¹²
- In 2002, economic costs related to diabetes totaled \$132 billion. Direct medical costs totaled \$91.8 billion. Indirect costs such as work loss, mortality and disability totaled \$40 billion.¹³
- In 2002, total medical expenditures incurred by people with diabetes were \$13,243 per person, compared to \$2,560 for people without diabetes. After taking into account demographic differences, the diabetic group still had 2.4 times more medical expenditures.¹⁴
- A worker's decreased productivity due to diabetes can cost the worker between \$3,700 and \$8,700 in yearly earnings.¹⁵

COMPREHENSIVE DIABETES CARE

RESULTS AND ANALYSIS			
	COMMERCIAL	MEDICARE	MEDICAID
HbA1c Testing:	87.5 up 1.0 pts Nationwide variability: 10.0 pts Top State: New Hampshire, 92.1	88.9 down 0.2 pts Nationwide variability: 13.8 pts Top State: Wisconsin, 93.7	76.2 up 0.2 pts Nationwide variability: 24.8 pts Top State: Minnesota, 88.7
Poor HbA1c Control*:	29.7 down 1.0 pts Nationwide variability: 20.2 pts Top State: Wisconsin, 21.0	23.6 up 1.1 pts Nationwide variability: 28.3 pts Top State: Wisconsin, 13.8	49.1 up 0.5 pts Nationwide variability: 44.0 pts Top State: Minnesota, 31.1
Eye Exams:	54.8 up 3.8 pts Nationwide variability: 31.0 pts Top State: New Hampshire, 71.1	66.5 down 0.5 pts Nationwide variability: 38.4 pts Top State: Oregon, 81.2	48.6 up 3.7 pts Nationwide variability: 42.6 pts Top State: Minnesota, 63.5
LDL-C Screening:	92.3 up 1.3 pts Nationwide variability: 7.1 pts Top State: California, 94.3	93.3 down 0.2 pts Nationwide variability: 9.7 pts Top State: Florida, 96.2	80.5 up 0.9 pts Nationwide variability: 24.5 pts Top State: New York, 90.4
LDL-C Control (<130):	67.5 up 2.7 pts Nationwide variability: 20.2 pts Top State: Wisconsin, 74.5	71.6 up 0.2 pts Nationwide variability: 26.5 pts Top State: Massachusetts, 78.5	51.3 up 0.3 pts Nationwide variability: 42.7 pts Top State: New York, 63.2
LDL-C Control (<100):	43.8 up 3.6 pts Nationwide variability: 17.8 pts Top State: Wisconsin, 51.6	50.0 up 2.5 pts Nationwide variability: 27.0 pts Top State: Massachusetts, 57.5	32.6 up 2.0 pts Nationwide variability: 32.1 pts Top State: Maryland, 40.7
Monitoring Nephropathy:	55.1 up 3.1 pts Nationwide variability: 24.6 pts Top State: Massachusetts, 65.0	60.2 up 1.7 pts Nationwide variability: 33.3 pts Top State: Minnesota, 73.3	48.8 up 2.1 pts Nationwide variability: 35.5 pts Top State: Minnesota, 64.6

* Lower rates are better for this measure.

HbA1c TESTING			
TRENDS, 1998 - 2005			
YEAR	COMMERCIAL	MEDICARE	MEDICAID
2005	87.5	88.9	76.2
2004	86.5	89.1	76.0
2003	84.6	87.9	74.8
2002	82.6	85.0	74.0
2001	81.4	85.7	71.7
2000	78.4	82.5	68.5
1999	75.0	N/A	N/A
1998	72.7	N/A	N/A

POOR HbA1c CONTROL			
TRENDS, 1998 - 2005; LOWER IS BETTER FOR THIS MEASURE			
YEAR	COMMERCIAL	MEDICARE	MEDICAID
2005	29.7	23.6	49.1
2004	30.7	22.5	48.6
2003	32.0	23.4	48.6
2002	33.9	24.5	48.2
2001	36.9	26.8	48.3
2000	42.5	33.4	54.9
1999	44.9	N/A	N/A
1998	38.3	N/A	N/A

COMPREHENSIVE DIABETES CARE

EYE EXAMS TRENDS, 1996 - 2005			
YEAR	COMMERCIAL	MEDICARE	MEDICAID
2005	54.8	66.5	48.6
2004	51.0	67.1	44.9
2003	48.8	64.9	45.0
2002	51.7	68.4	47.1
2001	52.1	66.0	46.4
2000	48.1	62.8	43.1
1999	45.4	N/A	N/A
1998	40.9	N/A	N/A
1997	38.8	N/A	N/A
1996	38.0	N/A	N/A

LDL-C CONTROL (<130 mg/dL) TRENDS, 1998 - 2005			
YEAR	COMMERCIAL	MEDICARE	MEDICAID
2005	67.5	71.6	51.3
2004	64.8	71.4	51.0
2003	60.4	67.7	47.8
2002	54.8	62.6	43.9
2001	49.8	57.5	38.9
2000	44.3	50.9	32.0
1999	36.7	N/A	N/A
1998	29.1	N/A	N/A

LDL-C SCREENING TRENDS, 1998 - 2005			
YEAR	COMMERCIAL	MEDICARE	MEDICAID
2005	92.3	93.3	80.5
2004	91.0	93.5	79.6
2003	88.4	91.1	75.9
2002	85.1	87.9	71.7
2001	81.4	85.7	66.6
2000	76.5	80.5	59.6
1999	69.0	N/A	N/A
1998	60.3	N/A	N/A

LDL-C CONTROL (<100 mg/dL) TRENDS, 2003 - 2005			
YEAR	COMMERCIAL	MEDICARE	MEDICAID
2005	43.8	50.0	32.6
2004	40.2	47.5	30.6
2003	34.7	41.9	27.8

MONITORING DIABETIC NEPHROPATHY TRENDS, 1998 - 2005			
YEAR	COMMERCIAL	MEDICARE	MEDICAID
2005	55.1	60.2	48.8
2004	52.0	58.5	46.7
2003	48.2	53.6	43.7
2002	51.8	57.3	47.8
2001	46.3	51.9	42.3
2000	41.4	45.0	38.9
1999	36.0	N/A	N/A
1998	28.4	N/A	N/A

CONTROLLING HIGH BLOOD PRESSURE

Hypertension costs in excess of \$60B annually.

High blood pressure (hypertension) is a common medical condition that affects one-fourth of all Americans. Hypertension is a significant risk factor for cardiovascular illness; the risk of developing it increases greatly with age.¹ Despite available effective treatment options, 65 percent of hypertension is not well controlled.² All patients with hypertension are at risk for stroke, coronary heart disease and other cardiovascular diseases; vulnerable populations such as elderly patients and those with high-risk comorbidities such as diabetes and chronic kidney disease are at even greater risk.

ABOUT HIGH BLOOD PRESSURE

- Almost half of Americans 45 or older have high blood pressure.³
- Hypertension doubles one's risk of stroke.⁴
- Nearly one third of adults with high blood pressure do not know they have it, increasing the risk of related complications and diseases.⁵
- High blood pressure was listed as a primary or contributing cause of death in approximately 278,000 deaths in the United States in 2003.⁶
- Hypertension decreases life expectancy for men 5.1 years in men and women 4.9 years.⁷

MEASURE DEFINITION

This measure estimates the percentage of hypertensive adults ages 46-85 whose blood pressure was controlled. Adequate control is defined as a blood pressure reading of 140/90 mmHg or lower during the past year. Both systolic and diastolic pressure must be at or under this threshold for blood pressure to be considered controlled.

THE CASE FOR IMPROVEMENT

- In 2006, the estimated aggregate cost of high blood pressure in the U.S. is \$63.5 billion—\$47.5 billion in direct medical expenditures and \$16 billion indirect medical expenses.⁸
- NCQA's quality gap analysis has found that more than over 29,000 deaths and 13 million sick days would be avoided each year if diagnosed hypertension were controlled at levels seen in the top 10 percent of commercial MCO plans.
- In clinical trials, antihypertensive therapy has been associated with a one-third reduction in stroke incidence, one-fourth reduction in myocardial infarctions and more than one-half reduction in heart failure.⁹

RESULTS AND ANALYSIS

COMMERCIAL

Control Rate: **68.8** up 2.0 pts
 Nationwide variability: 16.7 pts
 Top State: **New Hampshire, 74.5**

MEDICARE

Control Rate: **66.4** up 1.8 pts
 Nationwide variability: 19.4 pts
 Top State: **Massachusetts, 72.1**

MEDICAID

Control Rate: **61.4** no change
 Nationwide variability: 29.9 pts
 Top State: **Pennsylvania, 70.8**

CONTROLLING HIGH BLOOD PRESSURE

TRENDS, 1999 - 2005

YEAR	COMMERCIAL	MEDICARE	MEDICAID
2005	68.8	66.4	61.4
2004	66.8	64.6	61.4
2003	62.2	61.4	58.6
2002	58.4	56.9	53.4
2001	55.4	53.6	53.0
2000	51.5	46.7	45.4
1999	39.0	N/A	N/A

DISEASE MODIFYING ANTI-RHEUMATIC THERAPY IN RHEUMATOID ARTHRITIS

Commercial plans report over 80% usage of DMARDs in measure’s first year.

Rheumatoid Arthritis (RA) is a chronic autoimmune disorder often characterized by progressive joint destruction; if not properly treated, it can attack other vital organs as well.¹ It affects approximately 2.5 million Americans, 75 percent of whom are women.^{2,3} RA is the most common type of arthritis triggered by the immune system.⁴ Since there is no cure for RA, the goal of treatment is to slow the progression of disease and prevent joint destruction, relieve pain and maintain functional capacity.

ABOUT RHEUMATOID ARTHRITIS

- Although the course of RA in individual patients is highly variable, most patients with persistent RA develop progressive functional limitation and physical disability. Persistent RA has been found to reduce life expectancy.⁵⁻⁷
- Disease-modifying anti-rheumatic drugs (DMARDs) slow the progression of RA by slowing down bone erosions, reduce of inflammation and long-term structural damage. Studies find that use of DMARDs result in improved functional status and quality of life.⁸

MEASURE DEFINITION

This measure assesses whether patients diagnosed with rheumatoid arthritis (RA) have been prescribed a disease modifying anti-rheumatic drug (DMARD).

THE CASE FOR IMPROVEMENT

- Early DMARD treatment for RA within 3-6 months after onset greatly decreases long-term disability.⁹
- DMARDs have the potential to preserve joint integrity and function and ultimately reduce the total costs of health care for RA patients.¹⁰
- Individuals with RA have three times the direct medical costs, twice the hospitalization rate and 10 times the work disability rate of those without RA. Indirect costs (disability, work loss) have been estimated to be 3 times higher than direct costs associated with the disease.¹¹
- The total costs of RA amount to approximately 1 percent of the U.S. gross national product.¹²

RESULTS AND ANALYSIS		
COMMERCIAL		
Treatment Rate:	80.9	new measure
Nationwide variability: 19.6 pts		
Top State: New Hampshire, 90.3		
MEDICARE		
Control Rate:	64.2	new measure
Nationwide variability: 32.7 pts		
Top State: Missouri, 71.8		
MEDICAID		
Control Rate:	67.5	new measure
Nationwide variability: 28.2 pts		
Top State: New York, 72.4		
THIS IS A FIRST-YEAR MEASURE.		

FLU SHOTS FOR ADULTS

Vaccine shortage contributes to decline among commercial, Medicare plans

Every year, 15 to 59 million Americans contract influenza.¹ While rates of infection are highest among children, the risk of serious illness or death from influenza is highest among adults over 64, children under 2 and those with chronic medical conditions.² More than 200,000 people are hospitalized for flu-related complications each year.³ 63 percent are 65 years or older.⁴ On average, 36,000 Americans die from flu-related complications each year, an estimated 90 percent of whom are elderly.⁵ Vaccination is the most effective way to prevent severe illness complications and death.

ABOUT FLU SHOTS FOR ADULTS

- One third of all Americans age 50 to 64 have one or more chronic medical conditions that place them at increased risk for serious flu complications.⁶
- Rates of influenza vaccinations vary by race and ethnicity. Among adults 50-64, non-Hispanic whites were 8.1 percent more likely than non-Hispanic blacks and 8.2 percent more likely than Hispanics to have been vaccinated.⁷
- Vaccination coverage rates among adults 50 years and older are low. In 2003, 36.8 percent of adults 50-64 received a flu shot, compared to 65.5 percent of adults 65 and over.⁸

MEASURE DEFINITION

This measure estimates the percentage of members 50 years of age and older who received an influenza vaccination during the most recent flu season. The commercial rates represent adults ages 50-64 while the reported results for Medicare represent adults 65 and older.

- *Note:* Due to vaccine shortages in calendar years 2004 and 2005, rates of flu vaccination may decrease. During the 2004-05 influenza vaccination campaign, manufacturers distributed approximately 57.1 million doses of vaccine, substantially less than the 83.1 million distributed during the 2003-04 season.⁹

RESULTS AND ANALYSIS

COMMERCIAL

Screening rate: **36.3** down 2.6 pts
 Nationwide variability: 19.7 pts
 Top State: **Colorado, 47.3**

MEDICARE

Screening rate: **70.3** down 4.5 pts
 Nationwide variability: 26.8 pts
 Top State: **Minnesota, 86.5**

FLU SHOTS FOR ADULTS

TRENDS, 2003 - 2005

YEAR	COMMERCIAL	MEDICARE
2005	36.3	70.3
2004	38.9	74.8
2003	48.0	74.4

THE CASE FOR IMPROVEMENT

- Influenza vaccines can prevent half of hospitalizations and 80 percent of deaths from influenza-related complications among the elderly.¹⁰
- The estimated annual direct medical costs of influenza are over \$3 billion. Total direct and indirect costs (e.g., lost work or school days) of a severe flu epidemic are at least \$12 billion.¹¹
- Influenza vaccine is cost-effective. The cost of treatment for influenza-like illnesses including office visits, tests, procedures and medications is estimated to be \$145 per case.¹²
- The cost of delivering the influenza vaccine is estimated to be \$16.70 per person vaccinated, including direct and indirect medical costs as well as costs arising from potential side effects.¹³

FOLLOW-UP AFTER HOSPITALIZATION FOR MENTAL ILLNESS

Follow-up rates remain stagnant among commercial, Medicare plans

Mental disorders affect approximately 57 million Americans over 18 years of age.¹ Mental illnesses such as depression, bipolar disorder and schizophrenia are significant causes of disability in the U.S. Mental disorders can lead to suicide, one of the leading preventable causes of death. Appropriate treatment and follow-up of mental illness can reduce the duration of disability from mental illness and the likelihood of recurrence.

ABOUT MENTAL ILLNESS AND HOSPITALIZATIONS

- Mood disorders such as major depression and bipolar disorder affect nearly 21 million Americans over 18.²
- Mortality rates, primarily from suicide, are as high as 15 percent for the severest forms of depression.³
- Appropriate follow-up care reduces the risk of repeat hospitalization for some and identifies those in need of further hospitalization before they reach a crisis point.⁴
- More than half of first-time psychiatric inpatients are readmitted within 2 years.⁵
- The number of days between discharge and the follow-up appointment is a significant predictor of non-adherence to treatment.⁶

MEASURE DEFINITION

This measure estimates the percentage of health plan members age 6 and over who received inpatient treatment for a mental health disorder and who had an ambulatory or other specified type of follow-up after discharge. It separately measures the percentage of members who received follow-up care within 7 and 30 days.

RESULTS AND ANALYSIS		
COMMERCIAL		
Follow-up in 7 Days:	55.8	down 0.1 pts
Nationwide variability: 33.7 pts		
Top State: New Hampshire, 71.5		
Follow-up in 30 Days:	75.9	down 0.1 pts
Nationwide variability: 22.6 pts		
Top State: New Hampshire, 87.9		
MEDICARE		
Follow-up in 7 Days:	39.1	down 0.9 pts
Nationwide variability: 50.5 pts		
Top State: Massachusetts, 65.1		
Follow-up in 30 Days:	59.3	down 1.4 pts
Nationwide variability: 44.4 pts		
Top State: Massachusetts, 83.7		
MEDICAID		
Follow-up in 7 Days:	39.2	up 1.2 pts
Nationwide variability: 56.4 pts		
Top State: New York, 56.8		
Follow-up in 30 Days:	56.8	up 1.9 pts
Nationwide variability: 61.3 pts		
Top State: New York, 69.9		

FOLLOW-UP AFTER HOSPITALIZATION FOR MENTAL ILLNESS

THE CASE FOR IMPROVEMENT

- Mental illnesses account for more than 15 percent of the overall disease burden in the U.S. — more than the burden associated with all forms of cancer combined. 'Disease burden' assesses a health problem's size measured by cost, mortality, morbidity and other indicators and is expressed in terms of disability-adjusted life years.⁷
- Mental illness and substance abuse cost Americans an estimated \$77.2 billion in lost income.⁸
- Cost offset studies show a decrease in total health care costs following mental health interventions even when the intervention cost is included.⁹
- Individuals with major depression were found to be more than four times more likely to take disability days than non-depressed employees and three times more likely to miss time from work.¹⁰
- For a mental condition such as schizophrenia, psychiatric treatment non-adherence dramatically increases the risk of re-hospitalization and is associated with the high economic costs.¹¹
- In 2002, the total economic cost of schizophrenia in the U.S. was an estimated \$62.7 billion, of which \$22.7 billion was attributed to direct health care costs.¹²

FOLLOW-UP AFTER HOSPITALIZATION FOR MENTAL ILLNESS: 7 DAYS

TRENDS, 1998 - 2005

YEAR	COMMERCIAL	MEDICARE	MEDICAID
2005	55.8	39.1	39.2
2004	55.9	40.2	38.0
2003	54.4	38.8	37.7
2002	52.7	38.7	36.9
2001	51.3	37.2	33.2
2000	48.2	37.5	34.6
1999	47.4	N/A	N/A
1998	44.4	N/A	N/A

FOLLOW-UP AFTER HOSPITALIZATION FOR MENTAL ILLNESS: 30 DAYS

TRENDS, 1996 - 2005

YEAR	COMMERCIAL	MEDICARE	MEDICAID
2005	75.9	59.3	56.8
2004	76.0	60.7	54.9
2003	74.4	60.3	56.4
2002	73.6	60.6	56.3
2001	73.2	60.6	52.2
2000	71.2	59.3	54.9
1999	70.1	N/A	N/A
1998	67.3	N/A	N/A
1997	66.9	N/A	N/A
1996	71.7	N/A	N/A

FOLLOW-UP CARE FOR CHILDREN PRESCRIBED ADHD MEDICATION

New measure evaluates treatment of most common childhood behavioral disorder

Attention Deficit/Hyperactivity Disorder (ADHD) is the most commonly treated childhood neurobehavioral disorder. ADHD is found in 3 to 6 percent of schoolage children; at least 10 percent of behavioral problems seen in general pediatric settings are due to the disorder.¹ Children with ADHD may experience significant problems such as school difficulties, academic underachievement and troublesome relationships with family and peers.² Follow-up care and surveillance is a key aspect of ADHD treatment.

ABOUT ADHD MEDICATION AND FOLLOW-UP

- Given the high prevalence of ADHD among school-aged children, primary care clinicians need to develop a strategy for diagnosis and long-term management of this condition.³
- Just 25 percent of patients have a follow-up visit with their primary care physician in the 30 days following their first ADHD prescription. This number is only 4 percent higher in psychiatric settings.⁴
- In a recent study, only 53 percent of physicians surveyed reported routine follow-up visits for children diagnosed with ADHD.⁵

MEASURE DEFINITION

The following two indicators of this measure assess follow-up care for children prescribed ADHD medication:

Initiation Phase Management: The percentage of children 6-12 years of age with a prescription for ADHD medication who had one follow-up visit with a practitioner with prescriptive authority during the 30-day Initiation Phase.

Continuation and Maintenance (C&M) Phase: The percentage of children 6-12 years of age with a prescription for ADHD medication who remained on the medication for at least 210 days and had at least two additional follow-up visits with a practitioner within 9 months after the end of the Initiation Phase.

- *Note:* This year's specifications for the C&M Phase of the ADHD measure misstated the denominator. These rates will first be reported in HEDIS 2007.

RESULTS AND ANALYSIS		
COMMERCIAL		
Initiation Phase:	32.0	new measure
Nationwide variability: 21.9 pts		
Top State: New Hampshire, 44.4		
MEDICAID		
Initiation Phase:	31.4	new measure
Nationwide variability: 26.2 pts		
Top State: New York, 32.6		
THIS IS A FIRST-YEAR MEASURE.		

THE CASE FOR IMPROVEMENT

- The economic cost of illness associated with ADHD is high. Estimates of the total annual cost for treating children with ADHD range from \$2 billion to \$11 billion.⁶
- 70 to 90 percent of children respond to at least one ADHD drug treatment without major side effects.⁷
- Among children with ADHD, those on medication have shown to have significantly less frequent and less costly emergency department visits.⁸

GLAUCOMA SCREENING IN OLDER ADULTS

Screening rates dip slightly; glaucoma is the second leading cause of blindness.

Glaucoma is a group of eye diseases which result in irreversible damage to the optic nerve that carries information from the eye to the brain. Untreated glaucoma leads to blindness.¹ An estimated 80,000 Americans are legally blind due to glaucoma; it is the second leading cause of blindness in the United States.² More than 2 million Americans over 40 have glaucoma, but nearly half are unaware of it.³ Early-stage glaucoma shows no symptoms, however, if diagnosed at this stage, glaucoma can be easily treated and its progression can be significantly delayed or prevented.

ABOUT GLAUCOMA SCREENING

- Three-fourths of those legally blind due to glaucoma are over 65.⁴
- Most people with glaucoma are identified through routine eye exams.⁵
- Glaucoma accounts for over 7 million visits to physicians each year.⁶
- Screening for glaucoma is clinically important for early detection and treatment to prevent and delay glaucomatous damage.⁷

MEASURE DEFINITION

The Glaucoma Screening rate estimates the percentage of adults age 65 and over enrolled in Medicare who received one or more eye exams for glaucoma by an eye-care professional in the last two years. Enrollees diagnosed with glaucoma, or where suspected glaucoma was coded at the time of the eye exam, are excluded.

RESULTS AND ANALYSIS

MEDICARE

Screening rate: **61.6** down 0.7 pts
 Nationwide variability: 36.9 pts
 Top State: **Massachusetts, 78.3**

GLAUCOMA SCREENING IN OLDER ADULTS

TRENDS, 2004 - 2005

YEAR	MEDICARE
2005	61.6
2004	62.3

THE CASE FOR IMPROVEMENT

- Glaucoma is less likely to cause visual impairment when detected early.⁸
- Vision loss is attributed to an increased risk of injury due to falls in the elderly.⁹
- In states where vision testing is not required for people over 65, the ratio of fatal car crashes in the elderly is higher.¹⁰
- Treatment for early-stage glaucoma is far less expensive than treatment for late-stage glaucoma. One study estimates a difference close to \$2,000 per patient per year.¹¹
- The Veterans Health Administration has estimated the costs of treating glaucoma to be about \$1,100 per year.¹²

IMAGING STUDIES FOR LOW BACK PAIN

Measure targets overuse of imaging; appropriate use increased slightly in 2005.

Low back pain, the most common and expensive reason for work disability in the U.S., affects two thirds of adults at some time in their lives.¹ In a given year, about 15 percent of all Americans will have low back pain that lasts for at least two weeks; of those, 5 to 10 percent will have low back pain lasting three or more months.² However, when a patient's low back pain is not attributed to potentially serious spinal or other pathology, there is a poor correlation of x-ray findings with low back problems. According to the American College of Radiology, uncomplicated acute low back pain is a benign, self-limited condition that warrants no imaging studies (e.g., X-ray, MRI, CT scan). Most patients return to their usual activities in 30 days. The challenge is to distinguish that small segment within this large patient population that should be evaluated further for a more serious problem.³

ABOUT IMAGING STUDIES FOR LOW BACK PAIN

- Experts consider imaging studies to be overused in the evaluation of patients with acute low back pain. The vast majority of patients have nonspecific low back pain with no identifiable cause.⁴
- Less than one percent of radiographs find the cause of a case of low back pain.⁵
- A study found that patients given standard care (e.g., no radiograph) experienced no difference in health outcomes compared to those given lower back radiographs, other than patient satisfaction.⁶
- Disc protrusions detected on x-ray are often blamed for low back pain; however, disc protrusions are rarely responsible for the pain and surgery seldom alleviates it.⁷

MEASURE DEFINITION

This measure estimates the percentage of people 18-50 years of age who had an episode of acute low back pain with no risk factors or signs of serious pathology identified in the diagnostic visit and did *not* receive an imaging study in the following 28 days. Higher scores indicate fewer potentially inappropriate imaging studies.

RESULTS AND ANALYSIS

COMMERCIAL

Screening rate: **75.4** up 0.5 pts
 Nationwide variability: 14.4 pts
 Top State: **Washington, 81.7**

MEDICAID

Screening rate: **79.0** up 0.9 pts
 Nationwide variability: 15.0 pts
 Top State: **New York, 81.1**

IMAGING STUDIES FOR LOW BACK PAIN

TRENDS, 2004 - 2005

YEAR	COMMERCIAL	MEDICAID
2005	75.4	79.0
2004	74.9	78.1

THE CASE FOR IMPROVEMENT

- Low back pain is the most costly ailment in the workplace, costing \$8,000 per claim.⁸
- Complications from unnecessary surgery can increase the duration of low back pain.⁹
- The duration of low back pain more closely correlates than with decreased quality of life and disability more than its severity.¹⁰
- Total health care expenditures by Americans with back pain in 1998 totaled \$91 billion. Expenditures directly attributable to back pain totaled \$26 billion.¹¹
- Abnormalities found when imaging people without back pain are just as prevalent as those found in patients with back pain.¹²

INAPPROPRIATE ANTIBIOTIC TREATMENT FOR ADULTS WITH ACUTE BRONCHITIS

Ineffective use of antibiotic treatment contributes to bacterial resistance

Acute bronchitis—commonly known as a chest cold—is an acute respiratory infection with a normal chest radiograph manifested by a cough that lasts for up to 3 weeks.¹ About 5 percent of adults each year report an episode of acute bronchitis 90 percent of whom seek treatment. Because fewer than 1 in 10 acute bronchitis cases are bacterial,^{2,3} antibiotic treatment is not warranted for this primarily viral condition.

ABOUT INAPPROPRIATE ANTIBIOTIC TREATMENT FOR ACUTE BRONCHITIS

- Antibiotics are commonly misused and over-used for several viral respiratory conditions where antibiotic treatment is not effective.⁴
- 80 percent of antibiotics prescribed for acute respiratory infections in adults are unnecessary, according to CDC prevention guidelines.⁵
- In 2002 antibiotics were prescribed in 49 percent of US adult acute bronchitis cases despite its typically viral origin.⁶

MEASURE DEFINITION

The percentage of healthy adults 18-64 years of age with a diagnosis of acute bronchitis who were dispensed an antibiotic prescription on or within three days of the Episode Date. This Effectiveness of Care process measure assesses if antibiotics were inappropriately prescribed for healthy adults with bronchitis.

Antibiotics are not indicated in clinical guidelines for the treatment of adults with acute bronchitis who do not have a comorbidity or other infection for which antibiotics may be appropriate.

A lower rate represents better performance.

RESULTS AND ANALYSIS

COMMERCIAL

Treatment Rate: **66.1** new measure
 Nationwide variability: 16.7 pts
 Top State: **New Jersey, 57.1***

MEDICAID

Control Rate: **69.4** new measure
 Nationwide variability: 26.4 pts
 Top State: **California, 65.4***

THIS IS A FIRST-YEAR MEASURE.

* Lower rates are better for this measure.

THE CASE FOR IMPROVEMENT

- Elderly patients are particularly likely to receive unnecessary antibiotics, and more than one-half of such prescriptions are for extended-spectrum antibiotics.⁷
- Misuse and overuse of antibiotics contribute to antibiotic resistance, which diminishes the efficacy of antibiotics against bacterial infections, particularly in the sick and elderly.⁸⁻¹⁰
- The emergence of resistant bacterial strains due to misuse and overuse of antibiotics is a cause for worldwide public health concern; the prolific use of macrolides and azithromycin over the last several years have significantly increased the incidence of drug resistance.¹¹
- Inappropriate antibiotic use represents wasted health care resources. Reduction of antibiotic use would also decrease health care costs arising from the morbidity and mortality associated with increased antibiotic resistance in the community.¹²⁻¹⁴

INITIATION AND ENGAGEMENT OF ALCOHOL AND OTHER DRUG DEPENDENCE TREATMENT

Rates decline across the board; initiation, engagement rates vary widely among plans

In 2004, more than 9 percent of all Americans were classified with dependence on or abuse of alcohol or illicit drugs.¹ Research supports the need for those with alcohol or other drug dependence to engage in ongoing treatment to prevent relapse. Those who complete treatment or receive more days of treatment typically show more improvements than those who leave care prematurely.² The acute stage of treatment is associated with lasting improvements only with continued rehabilitative treatment.³

ABOUT ALCOHOL AND OTHER DRUG DEPENDENCE

- 77 percent of adults with dependence or abuse are employed either full or part time.⁴
- Overall, less than one fourth of those who need treatment for alcohol and/or drug abuse get it.⁵
- Alcohol use accounts for 85,000 (or nearly 1 in 25) deaths annually. It is among the most common preventable causes of death in the U.S.⁶
- A brief intervention of four or fewer sessions by a health professional has shown to help socially stable problem drinkers to reduce or stop drinking, motivate alcohol-dependent patients to enter long-term alcohol treatment and help some alcohol-dependent patients to abstain completely.⁷

MEASURE DEFINITION

These measures assess the degree to which plans initiate and engage adolescent (13-17 years) and adult (18 years and over) members identified with alcohol and other drug (AOD) dependence.

Initiation: The percentage of eligible members diagnosed with AOD dependence who initiate treatment through either an inpatient admission or an outpatient treatment and additional AOD treatment within 14 days.

Engagement: The percentage of eligible members diagnosed with AOD disorders who receive two additional AOD services within 30 days after treatment initiation.

RESULTS AND ANALYSIS			
COMMERCIAL			
Initiation:	44.5	down 1.4 pts	
Nationwide variability: 27.0 pts Top State: Kansas, 51.6			
Engagement:	14.1	down 1.4 pts	
Nationwide variability: 19.3 pts Top State: Connecticut, 22.1			
MEDICARE			
Initiation:	50.9	down 3.8 pts	
Nationwide variability: 45.7 pts Top State: Ohio, 54.8			
Engagement:	4.7	down 2.3 pts	
Nationwide variability: 10.3 pts Top State: Massachusetts, 8.6			
MEDICAID			
Initiation:	40.7	down 5.0 pts	
Nationwide variability: 32.5 pts Top State: Texas, 41.1			
Engagement:	9.7	down 2.3 pts	
Nationwide variability: 21.4 pts Top State: New York, 9.1			

INITIATION OF ALCOHOL AND OTHER DRUG DEPENDENCE TREATMENT			
TRENDS, 2004 - 2005			
YEAR	COMMERCIAL	MEDICARE	MEDICAID
2005	44.5	50.9	40.7
2004	45.9	54.7	45.7

ENGAGEMENT OF ALCOHOL AND OTHER DRUG DEPENDENCE TREATMENT			
TRENDS, 2004 - 2005			
YEAR	COMMERCIAL	MEDICARE	MEDICAID
2005	14.1	4.7	9.7
2004	15.5	7.0	12.0

INITIATION AND ENGAGEMENT OF ALCOHOL AND OTHER DRUG DEPENDENCE TREATMENT

THE CASE FOR IMPROVEMENT

- One in four deaths can be attributed to alcohol, tobacco or illicit drug use.⁸
- The annual cost of substance abuse is estimated to be a staggering \$414 billion. This includes productivity losses caused by premature death and the inability to perform usual activities, as well as costs related to treatment, crime, destruction of property and other losses.⁹
- Frequency and intensity of engagement is important in treatment outcomes and reducing drug-related illnesses; addiction intervention reduces utilization of health care services and criminal activity.¹⁰
- Studies have shown that from \$4 to \$7 are saved for every dollar spent on treatment.
- It costs approximately \$3,600 per month to leave a drug abuser untreated in the community; incarceration costs approximately \$3,300 per month.¹¹

MEDICAL ASSISTANCE WITH SMOKING CESSATION

Dramatic gains among Medicare plans lead to 3 in 4 smokers being advised to quit

Over 20 percent of Americans 18 and older are current smokers.^{1,2} Smoking has a detrimental affect on virtually every organ in the body. Diseases caused or made worse by smoking includes bladder, esophageal, lung, cervical, pancreatic, stomach, throat and other cancers, chronic lung diseases, coronary heart and cardiovascular diseases, sudden infant death syndrome, abdominal aortic aneurysm, cataracts and pneumonia.³ Smoking is one of the most preventable causes of death: 440,000 current or former smokers die prematurely per year.⁴ Smokers' lives are cut short by 13.2 to 14.5 years.⁵

ABOUT SMOKING CESSATION

- A recent study found that only 61.8 percent of current smokers who were trying to quit received advice to quit from their health care provider.⁶
- Counseling smokers on cessation increases the patient's potential to quit and is a cost-effective intervention. More intensive interventions, such as discussing strategies and use of a nicotine patch increases the potential for cessation.⁷

ABOUT SMOKING CESSATION

This measure evaluates three components:

Advising Smokers to Quit: The percentage of current smokers 18 and older who received advice to quit smoking from their practitioner within the past year.

Discussing Smoking Cessation Medications: The percentage of current smokers 18 and older whose practitioner discussed or recommended smoking cessation medications with them over the past year

Discussing Smoking Cessation Strategies: The percentage of current smokers 18 and older whose practitioner discussed or recommended smoking cessation methods or strategies with them over the past year.

RESULTS AND ANALYSIS		
COMMERCIAL		
Advising Smokers to Quit:	71.2	up 1.6 pts
Nationwide variability: 14.8 pts Top State: Massachusetts, 76.1		
Discussing Medications:	39.4	up 1.6 pts
Nationwide variability: 17.0 pts Top State: Massachusetts, 47.9		
Discussing Strategies:	39.0	up 2.1 pts
Nationwide variability: 18.1 pts Top State: Massachusetts, 50.0		
MEDICARE		
Advising Smokers to Quit:	75.5	up 10.8 pts
Nationwide variability: 23.4 pts Top State: Massachusetts, 80.7		
MEDICAID		
Advising Smokers to Quit:	65.6	down 1.3 pts
Nationwide variability: 13.8 pts Top State: Michigan, 69.7		
Discussing Medications:	31.9	up 0.4 pts
Nationwide variability: 18.9 pts Top State: New York, 40.3		
Discussing Strategies:	34.1	up 1.1 pts
Nationwide variability: 17.0 pts Top State: New York, 39.3		

MEDICAL ASSISTANCE WITH SMOKING CESSATION

THE CASE FOR IMPROVEMENT

- 10 years after quitting, an ex-smoker's risk of dying from lung cancer is 30 to 50 percent lower than those who continue to smoke.⁸
- In 2004, 14.6 million Americans attempted to stop smoking.⁹
- Smoking cessation treatment doubles quitting success rates.¹⁰
- Women who stop smoking before becoming pregnant or quit in the first 3 months of pregnancy can reverse the risk of low birth weight for the baby and reduce other pregnancy-associated smoking risks.¹¹
- The life extension from smoking cessation at age 35 is 8.5 years for men and 7.7 years for women. At age 65, the life extension is 2.0 years for men and 3.7 years for women.¹²
- Current smokers incur 18 percent higher health care costs over an 18-month period than people who never smoked.¹³
- Smoking-attributed healthcare expenditures and productivity losses exceed \$167 billion annually.¹⁴

ADVISING SMOKERS TO QUIT			
TRENDS, 2003 - 2005			
YEAR	COMMERCIAL	MEDICARE	MEDICAID
2005	71.2	75.5	65.6
2004	69.6	64.7	66.9
2003	68.6	63.3	65.8

DISCUSSING SMOKING CESSATION MEDICATIONS			
TRENDS, 2003 - 2005			
YEAR	COMMERCIAL	MEDICARE	MEDICAID
2005	39.4	N/A	31.9
2004	37.8	N/A	31.5
2003	37.6	N/A	31.5

DISCUSSING SMOKING CESSATION STRATEGIES			
TRENDS, 2003 - 2005			
YEAR	COMMERCIAL	MEDICARE	MEDICAID
2005	39.0	N/A	34.1
2004	36.9	N/A	33.0
2003	36.0	N/A	32.3

OSTEOPOROSIS MANAGEMENT IN WOMEN WHO HAD A FRACTURE

Rates improve slightly; proper management halves the risk of a subsequent fracture.

An estimated 10 million Americans—8 million of whom are women over 50—have osteoporosis; 34 million more are estimated to have low bone mass, placing them at increased risk for osteoporosis.¹ Osteoporosis contributes to more than 1.5 million fractures annually²; a woman over the age of 50 has a 50 percent chance of having an osteoporosis-related fracture in her lifetime.³

ABOUT OSTEOPOROSIS MANAGEMENT

- Total fracture rates are reduced according to the degree to which bone density testing is offered to women 60 to 80 years of age.⁴
- 90-95 percent of all hip and spine fractures and 70-80 percent of all forearm fractures in women over the age of 65 have been estimated to be attributable to osteoporosis.⁵
- Postmenopausal women are at highest risk for fractures if they have experienced fractures of the vertebrae, hip and wrist, but often remain untested and treated for osteoporosis.⁶

MEASURE DEFINITION

This measure estimates the percentage of women 67 years of age and older who suffered a fracture and who had either a bone mineral density test or prescription for a drug to treat or prevent osteoporosis in the six months after date of the fracture. This is not a measure of fractures "caused" by osteoporosis, but rather uses the presence of any fracture as a "trigger" to look for underlying osteoporosis. Women who suffer a fracture are more likely to have osteoporosis.

RESULTS AND ANALYSIS

MEDICARE

Management rate: **20.1** up 1.1 pts
 Nationwide variability: 15.7 pts
 Top State: **Pennsylvania, 24.4**

OSTEOPOROSIS MANAGEMENT

TRENDS, 2004 - 2005

YEAR	MEDICARE
2005	20.1
2004	19.0

THE CASE FOR IMPROVEMENT

- Treatment of osteoporotic fractures has been shown to reduce the risk of subsequent fractures 40 to 60 percent.⁷
- Women 75 and older with a hip fracture have twice the mortality rate of those without a fracture.⁸
- Direct medical costs due to osteoporotic and associated fractures totaled \$17 billion, or \$47 million per day, in 2001—and the cost is rising due to the aging U.S. population.⁹
- Osteoporotic fractures are responsible for an estimated 500,000 hospitalizations, 800,000 emergency room visits, 2.6 million physician visits and 180,000 nursing home placements each year.¹⁰

PRENATAL AND POSTPARTUM CARE

Rates continue steady rise; effective treatment reduces preterm, low-weight births.

There are more than 4 million births in the United States each year.¹ Early, effective prenatal care can identify mothers at risk of delivering a preterm or growth-retarded infant and provide an array of medical and educational interventions. Poor pregnancy outcomes can be costly, though many are preventable with early intervention. Early infancy is a critical time for the health of both baby and mother; continuity of care can help detect problems early and prevent complications.

ABOUT PRENATAL AND POSTPARTUM CARE

- Every week, more than 9,500 infants are born preterm and 6,200 low birth-weight infants are born, placing them at increased risk for neurodevelopmental handicaps, congenital anomalies and respiratory illness.²
- Comprehensive prenatal care has been shown to help reduce low birth weight incidence and infant mortality.³
- Women who receive no prenatal care are three to four times more likely to die from complications related to pregnancy than women who received prenatal care.⁴

MEASURE DEFINITION

This measure has two indicators:

Timeliness of Prenatal Care: The percentage of pregnant women who had a prenatal care visit in either the first trimester or within 42 days of enrollment.

Postpartum Care: The percentage of women who had a postpartum checkup 21 to 56 days after delivery.

RESULTS AND ANALYSIS		
COMMERCIAL		
Timely Prenatal Care:	91.8	up 1.0 pts
Nationwide variability: 12.7 pts		
Top State: New Hampshire, 97.3		
Postpartum Checkups:	81.5	up 0.8 pts
Nationwide variability: 18.1 pts		
Top State: South Carolina, 88.9		
MEDICAID		
Timely Prenatal Care:	79.1	up 0.9 pts
Nationwide variability: 30.4 pts		
Top State: Indiana, 89.5		
Postpartum Checkups:	57.0	up 0.5 pts
Nationwide variability: 29.2 pts		
Top State: New York, 67.4		

PRENATAL AND POSTPARTUM CARE

THE CASE FOR IMPROVEMENT

- Mothers who receive no prenatal care have an infant mortality rate over six times that of mothers whose prenatal care is initiated in the first trimester of pregnancy.⁵
- In 2003, the infant mortality rate for very preterm infants was 188 per 1000 live births, nearly 78 times that of infants born at term.⁶
- Every dollar of prenatal care results in expected savings of \$3.33 for postnatal care and \$4.63 in long-term morbidity costs.⁷
- Hospitalizations for pregnancy complications cost more than \$1 billion annually and account for more than 2 million hospital days of care.⁸
- Hospital charges for a normal-weight birth average \$5,800. A low weight infant birth may cost up to \$205,000.⁹

TIMELINESS OF PRENATAL CARE

TRENDS, 1996 - 2005

YEAR	COMMERCIAL	MEDICAID
2005	91.8	79.1
2004	90.8	78.2
2003	89.4	76.5
2002	86.7	70.1
2001	85.1	72.9
2000	83.3	72.6
1999	85.0	N/A
1998	83.4	N/A
1997	83.1	N/A
1996	83.8	N/A

POSTPARTUM CARE

TRENDS, 1997 - 2005

YEAR	COMMERCIAL	MEDICAID
2005	81.5	57.0
2004	80.7	56.5
2003	80.3	55.3
2002	77.0	52.9
2001	77.0	53.0
2000	74.1	49.8
1999	72.3	N/A
1998	70.1	N/A
1997	66.2	N/A

USE OF APPROPRIATE MEDICATIONS FOR PEOPLE WITH ASTHMA

Asthma accounts for more than 14 million lost school days, 14 million lost work days.

Asthma is one of the nation's most common, costly and increasingly prevalent diseases. Over 30 million Americans—including 8.5 million children—suffer from asthma.¹ Many asthma-related hospitalizations, emergency room visits and missed work and school days can be avoided if patients have appropriate medications and medical management.

ABOUT ASTHMA

- In 2004, asthma accounted for 1 million hospital outpatient visits and 1.8 million emergency department visits.²
- Asthma is the leading cause of school absenteeism attributed to chronic conditions.³
- Asthma is the third leading cause of hospitalization among children under the age of 15.⁴

MEASURE DEFINITION

This measure estimates the percentage of enrolled members 5 to 56 years with persistent asthma who were prescribed medications acceptable as primary therapy for long-term control of asthma. People with persistent asthma were redefined this year as having had at least one ER visit or hospital discharge related to an asthma attack, four or more outpatient visits related to asthma, or four or more asthma medications dispensed during 2004 and 2005.

The measure is collected separately for children (ages 5-9), adolescents (ages 10-17) and adults (ages 18-56). A combined rate is also reported.

THE CASE FOR IMPROVEMENT

- Nearly 5,000 Americans die of asthma each year. Some of those deaths could be avoided with improved disease management.⁵
- The economic cost of asthma is \$14 billion annually, including \$4.6 billion in lost productivity.⁶
- Children miss an estimated 14 million school days annually because of asthma.⁷
- Asthma accounts for an estimated 14.5 million lost workdays for adults.⁸
- Patients who use appropriate asthma medications, such as inhaled corticosteroids, are 45 percent less likely to make repeat emergency room visits.⁹
- Most asthma related hospitalizations and emergency department visits are preventable; non-acute asthma can be managed in the less costly ambulatory care setting.¹⁰

RESULTS AND ANALYSIS		
COMMERCIAL		
Combined Rate:	89.9	untrendable*
Nationwide variability: 8.0 pts		
Top State: District of Columbia, 93.6		
MEDICAID		
Combined Rate:	85.7	untrendable*
Nationwide variability: 14.2 pts		
Top State: New York, 90.7		

ASTHMA MEDICATION USE		
COMBINED RATE: TRENDS, 1998 - 2005		
YEAR	COMMERCIAL	MEDICAID
2005	89.9	85.7
2004*	72.9	64.5
2003	71.4	64.1
2002	67.9	62.8
2001	65.6	60.1
1999	62.6	57.4
1998	57.7	N/A

* Results untrendable due to changes to measure specifications.

USE OF SPIROMETRY IN THE ASSESSMENT AND DIAGNOSIS OF COPD

COPD fourth-leading cause of death; spirometry key to proper diagnosis

Chronic obstructive pulmonary disease—a group of diseases characterized by airflow obstruction, including chronic bronchitis and emphysema¹—is the fourth leading cause of death in the United States. By 2020, COPD is projected to be the third leading cause of death.^{2,3} Spirometry is a simple test that measures the amount and speed at which a person can breathe out air.⁴ Both symptomatic and asymptomatic patients suspected of COPD should have spirometry performed to establish whether their airway is obstructed—and if so, to what extent.⁵

ABOUT SPIROMETRY AND COPD

- COPD can be present with or without physical impairment or symptoms. It is often a silent and unrecognized disease and in its milder forms is difficult to detect and diagnose clinically without the use of spirometry.
- To begin appropriate treatment, it is essential to confirm the presence and reversibility of airflow obstruction and to distinguish COPD from asthma.^{6,7}

MEASURE DEFINITION

This measure estimates the percentage of members 40 and older with a new diagnosis of COPD who received spirometry testing to confirm this diagnosis.

THE CASE FOR IMPROVEMENT

- The total estimated annual cost of COPD is \$37.2 billion, including \$20.9 billion in annual direct medical costs.⁸
- An estimated 10.7 million adults in the U.S. were diagnosed with COPD; many more are thought to remain undiagnosed.⁹
- More than one-third of the American adult population reported respiratory symptoms compatible with symptomatic COPD.¹⁰
- Spirometry may reduce the number of individuals who are diagnosed with—and treated for—COPD, but do not have airflow obstruction of the severity likely to benefit from treatment.

RESULTS AND ANALYSIS		
COMMERCIAL		
Spirometry Rate:	34.8	new measure
Nationwide variability: 17.6 pts		
Top State: New York, 43.0		
MEDICARE		
Spirometry Rate:	26.3	new measure
Nationwide variability: 17.2 pts		
Top State: Wisconsin, 33.6		
MEDICAID		
Spirometry Rate:	26.5	new measure
Nationwide variability: 22.1 pts		
Top State: New York, 36.1		
THIS IS A FIRST-YEAR MEASURE.		

CAHPS® MEMBER SATISFACTION MEASURES

CAHPS® 3.0H measures members' satisfaction with their commercial and Medicaid organizations. It addresses areas such as the ability to obtain information from a health plan, the timeliness of service and the speed and accuracy by which health plans process claims. Taken together, the CAHPS results offer an indication of how well health care organizations are meeting their members' expectations.

The CAHPS 3.0H surveys were developed with the Agency for Healthcare Research and Quality (AHRQ), which launched the CAHPS initiative.

Medicare members' experiences are measured through the Medicare CAHPS survey administered by the Centers for Medicare & Medicaid Services (CMS).

RATING OF HEALTH PLAN

Respondents were asked to rate their health plan overall, with 0 equaling "worst health plan possible" and 10 equaling "best health plan possible." The tables below represent the percentage of respondents who rated their health plans either 8 or higher or 9 or higher.

In 2005, the percentage of enrollees who rated their health plan an 8, 9 or 10 increased by more than 1 percentage point for commercial plans and almost 4 percentage points for Medicare plans. The national average of 2005 for Medicaid is comparable to that of 2004.

The percentage of enrollees who rated their plan a 9 or 10 increased more than 1 percentage points among commercial and Medicaid plans, and more than 3 percentage points for Medicare plans. Nonetheless, a difference of more than 20 percentage points exists for this measure between commercial and Medicare plans.

RATING OF HEALTH PLAN: 8, 9 OR 10 TRENDS, 1999 - 2005			
YEAR	COMMERCIAL	MEDICAID	MEDICARE
2005	65.2	72.0	79.9
2004	64.1	71.6	76.0
2003	61.8	69.9	72.0
2002	61.3	69.7	78.2
2001	61.8	69.3	79.2
2000	59.3	67.0	78.8
1999	56.7	N/A	N/A

RATING OF HEALTH PLAN: 9 OR 10 TRENDS, 1999 - 2005			
YEAR	COMMERCIAL	MEDICAID	MEDICARE
2005	39.8	53.9	61.3
2004	38.4	52.6	57.5
2003	36.6	51.6	53.3
2002	36.2	51.8	60.3
2001	37.3	52.4	62.4
2000	35.8	50.2	61.6
1999	33.7	N/A	N/A

CUSTOMER SERVICE

The Customer Service composite measures how much of a problem it was for members to get needed information and to fill out paperwork in the last 12 months. The score represents the average percentage of members who responded "Not a problem."

Topics that were measured include:

- How problematic it was to find information in the health plan's written materials, or on the Internet
- How problematic it was getting information from the health plan's customer service line
- How problematic it was understanding and completing health plan paperwork

Responses included:

- A big problem
- A small problem
- Not a problem

In 2005, the Customer Service national average saw a decrease of more than 1 percentage point for Medicaid plans and 5 percentage point decrease for Medicare plans.

The introduction of the Medicare Part D prescription drug coverage, along with the provision of a May 15 deadline for enrollment, prompted many Medicare beneficiaries to call customer service lines with inquiries about the new coverage. Long wait times, along with some confusion among beneficiaries about the mechanics of the drug plan, may have contributed to the drop in customer service ratings this year.

However, despite the drop in 2005, the Medicare national average remains the highest among the three product lines.

CUSTOMER SERVICE: RESPONDENTS ANSWERING "NOT A PROBLEM"			
TRENDS, 1999 - 2005			
YEAR	COMMERCIAL	MEDICAID	MEDICARE
2005	71.2	68.5	74.4
2004	71.0	69.8	79.9
2003	70.8	69.5	79.9
2002	70.4	67.4	80.3
2001	67.2	67.5	80.9
2000	66.6	70.3	80.3
1999	64.5	N/A	N/A

CUSTOMER SERVICE: RESPONSES TO INDIVIDUAL QUESTIONS*			
COMMERCIAL, 2005			
QUESTION	A BIG PROBLEM	A SMALL PROBLEM	NOT A PROBLEM
How much of a problem was it to find information about how your health plan works in written materials or on the Internet?	9.2	34.8	56.0
How much of a problem was it to get the help you needed when you called your health plan's customer service?	12.1	24.2	63.7
How much of a problem did you have with paperwork for your health plan?	6.0	21.5	72.5

* Percentages may not add to 100 percent due to rounding.

GETTING NEEDED CARE

The Getting Needed Care composite measures the experiences members had in the last 12 months when attempting to get care from doctors and specialists. The rates displayed represent the average percentage of health plan members nationwide who responded "Not a problem."

Topics that were measured include:

- Obtaining a satisfactory doctor/provider
- Getting to see a specialist when needed
- Obtaining the care, tests, or treatment believed necessary
- Delays in health care while waiting for approval from the health plan

Responses included:

- A big problem
- A small problem
- Not a problem

In 2005, the Getting Needed Care national average increased by less than 1.0 percentage points among Commercial and Medicare plans.

The Medicaid national average was comparable to that of 2004; Medicare averages continue to be the highest among the three product lines.

GETTING NEEDED CARE: RESPONDENTS ANSWERING "NOT A PROBLEM"			
TRENDS, 1999 - 2005			
YEAR	COMMERCIAL	MEDICAID	MEDICARE
2005	80.2	73.9	87.1
2004	79.4	74.1	86.4
2003	78.4	72.1	84.1
2002	76.9	72.4	83.6
2001	76.7	75.5	83.4
2000	75.4	74.2	85.0
1999	74.0	N/A	N/A

GETTING NEEDED CARE: RESPONSES TO INDIVIDUAL QUESTIONS*			
COMMERCIAL, 2005			
QUESTION	A BIG PROBLEM	A SMALL PROBLEM	NOT A PROBLEM
How much of a problem, if any, was it to get a personal doctor or nurse you are happy with?	8.3	20.3	71.5
How much of a problem, if any, was it to see a specialist that you needed to see?	7.5	15.3	77.2
How much of a problem, if any, was it to get the care, tests or treatment you or a doctor believed necessary?	4.0	11.7	84.2
How much of a problem, if any, were delays in health care while you waited for approval from you health plan?	10.5	22.5	67.0

* Percentages may not add to 100 percent due to rounding.

- Please refer to Appendix 3 for further CAHPS data.



APPENDIX 1: HEDIS EFFECTIVENESS OF CARE MEASURES: 2005 NATIONAL AVERAGES

HEDIS EFFECTIVENESS OF CARE MEASURES			
National Averages - 2005			
MEASURE	COMMERCIAL	MEDICARE	MEDICAID
Adolescent Immunization Status - Hepatitis B	71.8	N/A	63.6
Adolescent Immunization Status - MMR	78.5	N/A	70.7
Adolescent Immunization Status - VZV	60.2	N/A	48.3
Adolescent Immunization Status - Combo 2	53.7	N/A	42.4
Antidepressant Medication Management - Contacts	20.6	11.8	20.7
Antidepressant Medication Management - Acute Phase	61.4	54.9	46.0
Antidepressant Medication Management - Continuation Phase	45.0	41.0	30.3
Appropriate Testing for Children with Pharyngitis	69.7	N/A	52.0
Appropriate Treatment for Children with a URI	82.9	N/A	82.5
Beta-Blocker Treatment After a Heart Attack	96.6	93.8	86.1
Breast Cancer Screening	72.0	71.6	53.9
Cervical Cancer Screening	81.8	N/A	65.0
Childhood Immunization Status - DTaP/DT	86.1	N/A	76.8
Childhood Immunization Status - Hepatitis B	90.0	N/A	85.2
Childhood Immunization Status - HiB	92.9	N/A	86.7
Childhood Immunization Status - IPV/OPV	90.3	N/A	84.5
Childhood Immunization Status - MMR	93.0	N/A	89.5
Childhood Immunization Status - Pneumococcal Conjugate	58.8	N/A	46.6
Childhood Immunization Status - VZV	89.9	N/A	86.4
Childhood Immunization Status - Combo 2	77.7	N/A	70.4
Childhood Immunization Status - Combo 3	53.1	N/A	42.5
Chlamydia Screening - 16-20 Years	34.4	N/A	49.1
Chlamydia Screening - 21-25 Years	35.2	N/A	52.4
Chlamydia Screening - Combined Rate	34.9	N/A	50.6
Colorectal Cancer Screening	52.3	53.9	N/A
Comprehensive Diabetes Care - HbA1c Testing	87.5	88.9	76.2
Comprehensive Diabetes Care - Poor HbA1c Control	29.7	23.6	49.1
Comprehensive Diabetes Care - Eye Exams	54.8	66.5	48.6
Comprehensive Diabetes Care - LDL-C Screening	92.3	93.3	80.5
Comprehensive Diabetes Care - LDL-C Control (<100)	43.8	50.0	32.6
Comprehensive Diabetes Care - LDL-C Control (<130)	67.5	71.6	51.3
Comprehensive Diabetes Care - Monitoring Nephropathy	55.1	60.2	48.8
Controlling High Blood Pressure	68.8	66.4	61.4
DMARD Therapy in Rheumatoid Arthritis	80.9	64.2	67.5

APPENDIX 1: HEDIS EFFECTIVENESS OF CARE MEASURES: 2005 NATIONAL AVERAGES

HEDIS EFFECTIVENESS OF CARE MEASURES			
National Averages - 2005			
MEASURE	COMMERCIAL	MEDICARE	MEDICAID
Follow-up After Hospitalization for Mental Illness - 7 Days	55.8	39.1	39.2
Follow-up After Hospitalization for Mental Illness - 30 Days	75.9	59.3	56.8
Follow-up for Children w/ADHD Medication - Initiation	32.0	N/A	31.4
Glaucoma Screening for Older Adults	N/A	61.6	N/A
Imaging Studies for Low Back Pain	75.4	N/A	79.0
Inappropriate Treatment for Adults with Acute Bronchitis	66.1	N/A	69.4
Init./Engagement Alcohol/Drug Dep. Treatment - Initiation	44.5	50.9	40.7
Init./Engagement Alcohol/Drug Dep. Treatment - Engagement	14.1	4.7	9.7
Osteoporosis Management in Women Who Had a Fracture	N/A	20.1	N/A
Persistence of Beta-Blocker Treatment After a Heart Attack	70.3	65.4	69.8
Prenatal and Postpartum Care - Postpartum Care	81.5	N/A	57.0
Prenatal and Postpartum Care - Timeliness of Prenatal Care	91.8	N/A	79.1
Use of Appropriate Medications for Asthma - 5-9 Years	95.7	N/A	88.0
Use of Appropriate Medications for Asthma - 10-17 Years	91.7	N/A	85.6
Use of Appropriate Medications for Asthma - 18-56 Years	88.5	N/A	83.4
Use of Appropriate Medications for Asthma - Combined Rate	89.9	N/A	85.7
Use of Spirometry in the Assessment and Diagnosis of COPD	34.8	26.3	26.5

APPENDIX 2: HEDIS EFFECTIVENESS OF CARE MEASURES: LIFE-OF-MEASURE TRENDS

ADOLESCENT IMMUNIZATION STATUS HEPATITIS B VACCINATION: TRENDS, 1997 - 2005		
YEAR	COMMERCIAL	MEDICAID
2005	71.8	63.6
2004	66.8	61.1
2003	62.7	56.3
2002	54.6	46.8
2001	48.3	40.8
2000	41.1	33.0
1999	34.4	N/A
1998	25.5	N/A
1997	17.8	N/A

ADOLESCENT IMMUNIZATION STATUS MMR VACCINATION: TRENDS, 1997 - 2005		
YEAR	COMMERCIAL	MEDICAID
2005	78.5	70.7
2004	76.8	71.5
2003	73.9	71.2
2002	67.9	64.2
2001	65.4	61.2
2000	62.3	54.2
1999	58.8	N/A
1998	52.3	N/A
1997	50.9	N/A

ADOLESCENT IMMUNIZATION STATUS VZV (CHICKEN POX) VACCINATION: TRENDS, 1997 - 2005		
YEAR	COMMERCIAL	MEDICAID
2005	60.2	48.3
2004	55.8	46.8
2003	50.9	44.1
2002	40.5	33.2
2001	34.1	27.8
2000	28.5	21.6
1999	24.1	N/A
1998	18.6	N/A
1997	16.9	N/A

CHILDHOOD IMMUNIZATION STATUS DTP/DTaP VACCINATION: TRENDS, 1996 - 2005		
YEAR	COMMERCIAL	MEDICAID
2005	86.1	76.8
2004	85.9	75.6
2003	84.3	72.6
2002	80.1	69.4
2001	81.5	71.2
2000	80.4	70.1
1999	78.7	N/A
1998	75.6	N/A
1997	76.7	N/A
1996	76.8	N/A

APPENDIX 2: HEDIS EFFECTIVENESS OF CARE MEASURES: LIFE-OF-MEASURE TRENDS

CHILDHOOD IMMUNIZATION STATUS HEPATITIS B VACCINATION: TRENDS, 1996 - 2005		
YEAR	COMMERCIAL	MEDICAID
2005	90.0	85.2
2004	87.2	81.9
2003	85.8	79.5
2002	81.9	76.7
2001	79.9	75.4
2000	77.9	73.3
1999	75.5	N/A
1998	71.9	N/A
1997	77.7	N/A
1996	78.2	N/A

CHILDHOOD IMMUNIZATION STATUS HiB VACCINATION: TRENDS, 1996 - 2005		
YEAR	COMMERCIAL	MEDICAID
2005	92.9	86.7
2004	87.8	79.1
2003	86.1	77.7
2002	83.2	74.7
2001	83.4	74.9
2000	82.7	74.8
1999	80.7	N/A
1998	78.0	N/A
1997	78.9	N/A
1996	83.2	N/A

CHILDHOOD IMMUNIZATION STATUS IPV/OPV VACCINATION: TRENDS, 1996 - 2005		
YEAR	COMMERCIAL	MEDICAID
2005	90.3	84.5
2004	90.1	84.8
2003	88.7	83.1
2002	86.0	80.6
2001	85.4	79.1
2000	84.2	77.8
1999	82.6	N/A
1998	81.3	N/A
1997	82.6	N/A
1996	82.8	N/A

CHILDHOOD IMMUNIZATION STATUS MMR VACCINATION: TRENDS, 1996 - 2005		
YEAR	COMMERCIAL	MEDICAID
2005	93.0	89.5
2004	92.3	88.1
2003	91.5	87.4
2002	90.1	84.6
2001	89.4	83.7
2000	88.4	82.1
1999	87.0	N/A
1998	85.6	N/A
1997	86.4	N/A
1996	86.5	N/A

APPENDIX 2: HEDIS EFFECTIVENESS OF CARE MEASURES: LIFE-OF-MEASURE TRENDS

CHILDHOOD IMMUNIZATION STATUS		
VZV (CHICKEN POX) VACCINATION: TRENDS, 1997 - 2005		
YEAR	COMMERCIAL	MEDICAID
2005	89.9	86.4
2004	87.5	84.7
2003	85.7	81.8
2002	82.0	76.5
2001	75.3	73.6
2000	70.5	67.4
1999	63.8	N/A
1998	51.6	N/A
1997	39.5	N/A

APPENDIX 3: CAHPS® MEMBER SATISFACTION MEASURES: NATIONAL AVERAGES

CAHPS MEMBER SATISFACTION MEASURES			
National Averages - 2005			
MEASURE	COMMERCIAL	MEDICARE	MEDICAID
Rating of Health Plan (8, 9 or 10)	65.2	79.9	72.0
Rating of Health Plan (9 or 10)	39.8	61.3	53.9
Claims Processing	89.1	N/A	N/A
Courteousness of Office Staff ("Usually or "Always")	93.2	95.9	88.2
Courteousness of Office Staff ("Always" only)	65.9	79.3	66.3
Customer Service	71.2	74.4	68.5
Getting Care Quickly ("Usually or "Always")	79.7	84.5	72.3
Getting Care Quickly ("Always" only)	46.5	58.7	44.6
Getting Needed Care	80.2	87.1	73.9
How Well Doctors Communicate ("Usually or "Always")	92.2	94.0	86.0
How Well Doctors Communicate ("Always" only)	61.3	69.5	61.3
Rating of Health Care (8, 9 or 10)	78.0	86.6	73.0
Rating of Health Care (9 or 10)	53.5	69.1	54.2
Rating of Personal Doctor or Nurse (8, 9 or 10)	77.2	85.5	77.0
Rating of Specialist (8, 9 or 10)	78.1	84.1	76.0
Rating of Specialist (9 or 10)	57.2	67.7	60.1

APPENDIX 4: HEDIS EFFECTIVENESS OF CARE MEASURES: ACCREDITED vs. NON-ACCREDITED PLANS - COMMERCIAL

HEDIS EFFECTIVENESS OF CARE MEASURES			
ACCREDITED VS. NON-ACCREDITED PLANS: COMMERCIAL AVERAGES, 2005			
MEASURE	ACCREDITED	UNACCREDITED	DIFFERENCE
Adolescent Immunization Status - Combo 2	56.5	44.2	12.2
Adolescent Immunization Status - Hepatitis B	73.7	65.2	8.5
Adolescent Immunization Status - MMR	79.9	73.6	6.4
Adolescent Immunization Status - VZV	63.0	50.7	12.3
Antidepressant Medication Management - Acute Phase	61.7	60.1	1.6
Antidepressant Medication Management - Continuation Phase	45.3	43.8	1.4
Antidepressant Medication Management - Contacts	21.5	17.0	4.4
Appropriate Testing for Children with Pharyngitis	70.3	67.3	3.0
Appropriate Treatment for Children with a URI	83.0	82.4	0.6
Beta-Blocker Treatment After a Heart Attack	97.1	93.0	4.2
Breast Cancer Screening	72.6	70.1	2.5
Cervical Cancer Screening	82.6	79.0	3.7
Childhood Immunization Status - Combo 2	79.1	73.1	6.0
Childhood Immunization Status - DTaP/DT	87.4	82.1	5.3
Childhood Immunization Status - Hepatitis B	91.0	86.7	4.2
Childhood Immunization Status - HiB	93.9	89.6	4.3
Childhood Immunization Status - IPV/OPV	91.4	86.4	5.0
Childhood Immunization Status - MMR	93.5	91.3	2.3
Childhood Immunization Status - VZV	90.7	87.3	3.4
Chlamydia Screening - Combined Rate	35.4	33.2	2.1
Comprehensive Diabetes Care - Eye Exams	56.3	50.1	6.2
Comprehensive Diabetes Care - HbA1c Testing	87.9	86.2	1.7
Comprehensive Diabetes Care - LDL-C Screening	92.6	91.3	1.3
Comprehensive Diabetes Care - LDL-C Control (<100)	44.8	40.5	4.3
Comprehensive Diabetes Care - LDL-C Control (<130)	68.8	63.4	5.4
Comprehensive Diabetes Care - Monitoring Nephropathy	56.4	51.1	5.3
Comprehensive Diabetes Care - Poor HbA1c Control*	28.6	33.4	(4.8)
Controlling High Blood Pressure	69.9	64.9	5.0
Flu Shots for Adults	35.5	38.9	(3.4)
Follow-up After Hospitalization for Mental Illness - 7 Days	57.2	49.1	8.1
Follow-up After Hospitalization for Mental Illness - 30 Days	77.0	70.4	6.7
Imaging Studies for Low Back Pain	75.7	74.3	1.4
Init./Engagement Alcohol/Drug Dep. Treatment - Initiation	44.6	44.0	0.6
Init./Engagement Alcohol/Drug Dep. Treatment - Engagement	14.3	13.2	1.2
Medical Assistance with Smoking Cessation	71.1	71.8	(0.7)
Persistence of Beta-Blocker Treatment After a Heart Attack	70.5	68.0	2.5
Prenatal and Postpartum Care - Postpartum Care	83.0	76.0	7.0
Prenatal and Postpartum Care - Timeliness of Prenatal Care	92.9	88.2	4.7
Use of Appropriate Medications for Asthma - Combined Rate	90.3	88.5	1.8

* Lower rates are better for this measure; the negative difference signifies higher performance among NCQA-Accredited plans for this measure.

APPENDIX 5: HEDIS EFFECTIVENESS OF CARE MEASURES: ACCREDITED vs. NON-ACCREDITED PLANS - MEDICAID

HEDIS EFFECTIVENESS OF CARE MEASURES			
ACCREDITED VS. NON-ACCREDITED PLANS: MEDICAID AVERAGES, 2005			
MEASURE	ACCREDITED	UNACCREDITED	DIFFERENCE
Adolescent Immunization Status - Combo 2	53.0	37.3	15.7
Adolescent Immunization Status - Hepatitis B	73.6	59.0	14.6
Adolescent Immunization Status - MMR	79.0	66.8	12.2
Adolescent Immunization Status - VZV	60.4	42.8	17.6
Antidepressant Medication Management - Contacts	23.2	19.0	4.2
Antidepressant Medication Management - Acute Phase	45.8	46.0	(0.2)
Antidepressant Medication Management - Continuation Phase	28.8	31.2	(2.4)
Appropriate Testing for Children with Pharyngitis	55.2	50.0	5.2
Appropriate Treatment for Children with a URI	83.0	82.2	0.8
Beta-Blocker Treatment After a Heart Attack	92.9	80.8	12.1
Breast Cancer Screening	57.0	52.5	4.6
Cervical Cancer Screening	72.3	62.2	10.1
Childhood Immunization Status - Combo 2	75.3	68.5	6.8
Childhood Immunization Status - DTaP/DT	82.0	74.9	7.1
Childhood Immunization Status - Hepatitis B	90.3	83.3	7.0
Childhood Immunization Status - HiB	90.5	85.3	5.2
Childhood Immunization Status - IPV/OPV	89.6	82.7	6.9
Childhood Immunization Status - MMR	92.2	88.5	3.8
Childhood Immunization Status - VZV	90.1	85.1	5.0
Chlamydia Screening - Combined Rate	49.8	50.9	(1.1)
Comprehensive Diabetes Care - HbA1c Testing	82.8	73.5	9.2
Comprehensive Diabetes Care - Poor HbA1c Control*	39.2	53.4	(14.2)
Comprehensive Diabetes Care - Eye Exams	58.3	44.6	13.7
Comprehensive Diabetes Care - LDL-C Screening	85.7	78.4	7.3
Comprehensive Diabetes Care - LDL-C Control (<100)	37.1	30.6	6.4
Comprehensive Diabetes Care - LDL-C Control (<130)	58.9	47.9	11.0
Comprehensive Diabetes Care - Monitoring Nephropathy	54.4	46.6	7.8
Controlling High Blood Pressure	66.6	57.2	9.4
Follow-up After Hospitalization for Mental Illness - 7 Days	49.1	33.9	15.2
Follow-up After Hospitalization for Mental Illness - 30 Days	67.4	51.0	16.3
Imaging Studies for Low Back Pain	78.3	79.6	(1.3)
Init./Engagement Alcohol/Drug Dep. Treatment - Engagement	12.6	8.0	4.5
Init./Engagement Alcohol/Drug Dep. Treatment - Initiation	42.0	39.9	2.1
Medical Assistance with Smoking Cessation	67.4	64.2	3.2
Persistence of Beta-Blocker Treatment After a Heart Attack	74.4	64.0	10.4
Prenatal and Postpartum Care - Postpartum Care	63.0	54.8	8.2
Prenatal and Postpartum Care - Timeliness of Prenatal Care	86.2	76.4	9.7
Use of Appropriate Medications for Asthma - Combined Rate	88.7	84.5	4.2

* Lower rates are better for this measure; the negative difference signifies higher performance among NCQA-Accredited plans for this measure.

APPENDIX 6: HEDIS EFFECTIVENESS OF CARE MEASURES: ACCREDITED vs. NON-ACCREDITED PLANS - MEDICARE

HEDIS EFFECTIVENESS OF CARE MEASURES ACCREDITED VS. NON-ACCREDITED PLANS: MEDICARE AVERAGES, 2005			
MEASURE	ACCREDITED	UNACCREDITED	DIFFERENCE
Antidepressant Medication Management - Contacts	13.2	10.7	2.5
Antidepressant Medication Management - Acute Phase	59.0	51.8	7.2
Antidepressant Medication Management - Continuation Phase	45.2	37.7	7.5
Beta-Blocker Treatment After a Heart Attack	97.7	91.3	6.4
Breast Cancer Screening	76.8	68.5	8.3
Colorectal Cancer Screening	60.3	50.3	10.0
Comprehensive Diabetes Care - HbA1c Testing	91.4	87.5	3.9
Comprehensive Diabetes Care - Poor HbA1c Control*	18.8	26.2	(7.4)
Comprehensive Diabetes Care - Eye Exams	76.1	61.3	14.7
Comprehensive Diabetes Care - LDL-C Screening	95.1	92.3	2.8
Comprehensive Diabetes Care - LDL-C Control (<100)	54.6	47.5	7.1
Comprehensive Diabetes Care - LDL-C Control (<130)	76.5	69.0	7.6
Comprehensive Diabetes Care - Monitoring Nephropathy	63.9	58.2	5.7
Controlling High Blood Pressure	68.5	65.2	3.3
Flu Shots for Adults	76.3	67.0	9.3
Follow-up After Hospitalization for Mental Illness - 7 Days	53.6	30.4	23.2
Follow-up After Hospitalization for Mental Illness - 30 Days	72.9	51.2	21.7
Glaucoma Screening for Older Adults	67.7	57.9	9.8
Init./Engagement Alcohol/Drug Dep. Treatment - Initiation	50.5	51.1	(0.5)
Init./Engagement Alcohol/Drug Dep. Treatment - Engagement	5.8	4.0	1.8
Medical Assistance with Smoking Cessation	77.7	74.3	3.4
Osteoporosis Management in Women Who Had a Fracture	23.1	18.2	4.9
Persistence of Beta-Blocker Treatment After a Heart Attack	71.6	60.7	10.8

* Lower rates are better for this measure; the negative difference signifies higher performance among NCQA-Accredited plans for this measure.

APPENDIX 7: HEDIS EFFECTIVENESS OF CARE MEASURES: PUBLICLY REPORTING vs. NON-PUBLICLY REPORTING PLANS - COMMERCIAL

HEDIS EFFECTIVENESS OF CARE MEASURES			
PUBLICLY REPORTING VS. NON-PUBLICLY REPORTING PLANS: COMMERCIAL AVERAGES, 2005			
MEASURE	PUBLIC	NON-PUBLIC	DIFFERENCE
Adolescent Immunization Status - Combo 2	55.2	37.6	17.6
Adolescent Immunization Status - Hepatitis B	73.1	57.6	15.5
Adolescent Immunization Status - MMR	79.2	70.6	8.6
Adolescent Immunization Status - VZV	61.7	45.1	16.6
Antidepressant Medication Management - Contacts	20.9	16.4	4.5
Antidepressant Medication Management - Acute Phase	61.7	57.4	4.3
Antidepressant Medication Management - Continuation Phase	45.4	40.6	4.8
Appropriate Testing for Children with Pharyngitis	69.8	68.5	1.3
Appropriate Treatment for Children with a URI	82.9	82.4	0.5
Beta-Blocker Treatment After a Heart Attack	96.9	91.8	5.1
Breast Cancer Screening	72.3	69.3	3.0
Cervical Cancer Screening	82.3	77.2	5.1
Childhood Immunization Status - Combo 2	78.9	65.3	13.6
Childhood Immunization Status - DTaP/DT	87.2	75.8	11.4
Childhood Immunization Status - Hepatitis B	91.0	79.7	11.3
Childhood Immunization Status - HiB	93.7	84.2	9.5
Childhood Immunization Status - IPV/OPV	91.2	80.5	10.7
Childhood Immunization Status - MMR	93.5	88.3	5.2
Childhood Immunization Status - VZV	90.5	83.5	7.0
Chlamydia Screening - Combined Rate	35.2	32.4	2.8
Colorectal Cancer Screening	52.8	46.9	5.9
Comprehensive Diabetes Care - HbA1c Testing	87.8	85.1	2.7
Comprehensive Diabetes Care - Poor HbA1c Control*	29.0	35.7	(6.7)
Comprehensive Diabetes Care - Eye Exams	55.7	47.7	8.0
Comprehensive Diabetes Care - LDL-C Screening	92.4	90.9	1.5
Comprehensive Diabetes Care - LDL-C Control (<100)	44.3	39.8	4.5
Comprehensive Diabetes Care - LDL-C Control (<130)	68.1	62.3	5.8
Comprehensive Diabetes Care - Monitoring Nephropathy	55.6	51.5	4.1
Controlling High Blood Pressure	69.4	62.0	7.4
Flu Shots for Adults	36.4	34.5	1.9
Follow-up After Hospitalization for Mental Illness - 7 Days	56.3	48.0	8.3
Follow-up After Hospitalization for Mental Illness - 30 Days	76.6	66.5	10.1
Imaging Studies for Low Back Pain	75.7	71.8	3.9
Init./Engagement Alcohol/Drug Dep. Treatment - Initiation	44.5	45.2	(0.7)
Init./Engagement Alcohol/Drug Dep. Treatment - Engagement	14.1	14.4	(0.3)
Medical Assistance with Smoking Cessation	71.4	67.6	3.8
Persistence of Beta-Blocker Treatment After a Heart Attack	70.2	70.5	(0.3)
Prenatal and Postpartum Care - Postpartum Care	82.5	71.3	11.2
Prenatal and Postpartum Care - Timeliness of Prenatal Care	92.7	84.1	8.6
Use of Appropriate Medications for Asthma - Combined Rate	89.9	89.3	0.6

* Lower rates are better for this measure; the negative difference signifies higher performance among publicly reporting plans for this measure.

APPENDIX 8: HEDIS EFFECTIVENESS OF CARE MEASURES: PUBLICLY REPORTING vs. NON-PUBLICLY REPORTING PLANS - MEDICAID

HEDIS EFFECTIVENESS OF CARE MEASURES			
PUBLICLY REPORTING VS. NON-PUBLICLY REPORTING PLANS: MEDICAID AVERAGES, 2005			
MEASURE	PUBLIC	NON-PUBLIC	DIFFERENCE
Adolescent Immunization Status - Combo 2	46.4	33.4	13.0
Adolescent Immunization Status - Hepatitis B	68.8	52.5	16.3
Adolescent Immunization Status - MMR	74.6	62.3	12.3
Adolescent Immunization Status - VZV	53.0	38.5	14.5
Antidepressant Medication Management - Contacts	22.0	17.8	4.2
Antidepressant Medication Management - Acute Phase	46.3	45.3	1.0
Antidepressant Medication Management - Continuation Phase	30.2	30.4	(0.2)
Appropriate Testing for Children with Pharyngitis	52.4	51.0	1.4
Appropriate Treatment for Children with a URI	82.5	82.3	0.2
Beta-Blocker Treatment After a Heart Attack	89.5	73.0	16.5
Breast Cancer Screening	55.2	51.0	4.2
Cervical Cancer Screening	67.3	60.4	6.9
Childhood Immunization Status - Combo 2	72.1	66.7	5.4
Childhood Immunization Status - DTaP/DT	79.1	72.5	6.6
Childhood Immunization Status - Hepatitis B	87.5	80.6	6.9
Childhood Immunization Status - HiB	88.8	82.6	6.2
Childhood Immunization Status - IPV/OPV	86.9	79.8	7.1
Childhood Immunization Status - MMR	90.7	87.2	3.5
Childhood Immunization Status - VZV	88.3	82.7	5.6
Chlamydia Screening - Combined Rate	51.8	48.1	3.7
Comprehensive Diabetes Care - HbA1c Testing	78.8	71.0	7.8
Comprehensive Diabetes Care - Poor HbA1c Control*	45.6	56.1	(10.5)
Comprehensive Diabetes Care - Eye Exams	51.6	42.4	9.2
Comprehensive Diabetes Care - LDL-C Screening	83.2	75.1	8.1
Comprehensive Diabetes Care - LDL-C Control (<100)	35.5	26.8	8.7
Comprehensive Diabetes Care - LDL-C Control (<130)	55.1	43.6	11.5
Comprehensive Diabetes Care - Monitoring Nephropathy	51.0	44.3	6.7
Controlling High Blood Pressure	62.6	57.2	5.4
Follow-up After Hospitalization for Mental Illness - 7 Days	39.1	39.3	(0.2)
Follow-up After Hospitalization for Mental Illness - 30 Days	58.1	53.7	4.4
Imaging Studies for Low Back Pain	78.3	80.8	(2.5)
Init./Engagement Alcohol/Drug Dep. Treatment - Initiation	40.3	41.4	(1.1)
Init./Engagement Alcohol/Drug Dep. Treatment - Engagement	10.9	7.5	3.4
Medical Assistance with Smoking Cessation	66.4	63.7	2.7
Persistence of Beta-Blocker Treatment After a Heart Attack	69.7	70.5	(0.8)
Prenatal and Postpartum Care - Postpartum Care	58.1	54.9	3.2
Prenatal and Postpartum Care - Timeliness of Prenatal Care	79.3	78.7	0.6
Use of Appropriate Medications for Asthma - Combined Rate	86.7	83.5	3.2

* Lower rates are better for this measure; the negative difference signifies higher performance among publicly reporting plans for this measure.



REFERENCES

ADOLESCENT IMMUNIZATION STATUS

1. Centers for Disease Control and Prevention. Recommended childhood and adolescent immunization schedule - United States 2006. <http://www.immunize.org/cdc/child-schedule.pdf> Updated: 2006.
2. Centers for Disease Control and Prevention. Hepatitis B . <http://www.cdc.gov/ncidod/diseases/hepatitis/b/fact.htm> Updated: 2006.
3. National Foundation for Infectious Diseases. <http://www.nfid.org/factsheets/adolncai.html> Updated: 2002.
4. Abramson JS, Pickering LK. US Immunization Policy. *JAMA* 2002; 287(4):505-509.
5. Ibid.
6. Rappuoli R, Miller HI, Falkow S. MEDICINE: The Intangible Value of Vaccination. *Science* 2002; 297(5583):937-939.

ANTIDEPRESSANT MEDICATION MANAGEMENT

1. Kessler RC, Berglund P, Demler O, Jin R, Koretz D, Merikangas KR et al. The Epidemiology of Major Depressive Disorder: Results From the National Comorbidity Survey Replication (NCS-R). *JAMA* 2003; 289(23):3095-3105.
2. Ibid.
3. Simon GE. Evidence review: efficacy and effectiveness of antidepressant treatment in primary care. *Gen Hosp Psychiatry* 2002; 24(4):213-224.
4. Lingam R, Scott J. Treatment non-adherence in affective disorders. *Acta Psychiatr Scand* 2002; 105(3):164-172.
5. Melartin TK, Rytsala HJ, Leskela US, Lestela-Mielonen PS, Sokero TP, Isometsa ET. Continuity is the main challenge in treating major depressive disorder in psychiatric care. *J Clin Psychiatry* 2005; 66(2):220-227.
6. Anderson D, Berlant J, Sternbach K. Managed Behavioral Health Care and Chemical Dependency Services. In: Kongstvedt P, editor. *Essentials of Managed Care*. Sudbury: Jones and Bartlett Publishers, 2003: 332-337.
7. Stewart WF, Ricci JA, Chee E, Hahn SR, Morganstein D. Cost of lost productive work time among US workers with depression. *JAMA* 2003; 289(23):3135-3144.
8. Sood N, Treglia M, Obenchain RL, Dulisse B, Melfi CA, Croghan TW. Determinants of antidepressant treatment outcome. *Am J Manag Care* 2000; 6(12):1327-1336.
9. Cantrell CR, Eaddy MT, Shah MB, Regan TS, Sokol MC. Methods for evaluating patient adherence to antidepressant therapy: a real-world comparison of adherence and economic outcomes. *Med Care* 2006; 44(4):300-303.
10. Sederer LI, Clemens NA. Economic grand rounds: the business case for high-quality mental health care. *Psychiatr Serv* 2002; 53(2):143-145.
11. Managed Behavioral Health Care and Chemical Dependency Services.
12. National Academy on an Aging Society. *Depression: A Treatable Disease*. <http://www.agingsociety.org/agingsociety/pdf/depression.pdf> Updated: 2002.
13. Treatment non-adherence in affective disorders.
14. Department of Health and Human Services. The Surgeon General's call to action to prevent suicide. 1999. Washington, DC, Department of Health and Human Services.
15. Continuity is the main challenge in treating major depressive disorder in psychiatric care.

REFERENCES

APPROPRIATE TESTING FOR CHILDREN WITH PHARYNGITIS

1. Simon, HK. Pediatrics, Pharyngitis. <http://www.emedicine.com/EMERG/topic395.htm> Updated: 2-2-2006.
2. Gonzales R, Malone DC, Maselli JH, Sande MA. Excessive antibiotic use for acute respiratory infections in the United States. *Clin Infect Dis* 2001; 33(6):757-762.
3. Seppala, H., Klaukka, T., Vuopio-Varikila, J. The effect of changes in the consumption of macrolide antibiotics on erythromycin resistance in group A streptococci in Finland. *NEJM* 1997;337:441-446.
4. Linder JA, Bates DW, Lee GM, Finkelstein JA. Antibiotic treatment of children with sore throat. *JAMA* 2005; 294(18):2315-2322.
5. Benin AL, Vitkauskas G, Thornquist E, Shiffman RN, Concato J, Krumholz HM et al. Improving diagnostic testing and reducing overuse of antibiotics for children with pharyngitis: a useful role for the electronic medical record. *Pediatr Infect Dis J* 2003; 22(12):1043-1047.
6. Park SY, Gerber MA, Tanz RR, Hickner JM, Galliher JM, Chuang I et al. Clinicians' management of children and adolescents with acute pharyngitis. *Pediatrics* 2006; 117(6):1871-1878.
7. Antibiotic treatment of children with sore throat.
8. U.S. Congress, Office of Technology Assessment, Impacts of Antibiotic-Resistant Bacteria, OTA-H-629 (Washington, DC: U.S. Government Printing Office, September 1995).

APPROPRIATE TESTING FOR CHILDREN WITH AN UPPER RESPIRATORY INFECTION

1. National Institute of Allergy and Infectious Diseases. The Common Cold. <http://www.niaid.nih.gov/factsheets/cold.htm> Updated: 2004.
2. Rosenstein N, Phillips WR, Gerber MA, Marcy SM, Schwartz B, Dowell SF. The Common Cold---Principles of Judicious Use of Antimicrobial Agents. *Pediatrics* 1998; 101(1):181-184.
3. McCaig LF, Besser RE, Hughes JM. Trends in Antimicrobial Prescribing Rates for Children and Adolescents. *JAMA* 2002; 287(23):3096-3102.
4. Miller GE, Hudson J. Children and antibiotics: analysis of reduced use, 1996-2001. *Med Care* 2006; 44(5 Suppl):I36-I44.
5. Gonzales R, Malone DC, Maselli JH, Sande MA. Excessive antibiotic use for acute respiratory infections in the United States. *Clin Infect Dis* 2001; 33(6):757-762.
6. Ibid.

BETA-BLOCKER TREATMENT AND PERSISTENCE OF BETA-BLOCKER TREATMENT AFTER A HEART ATTACK

1. American Heart Association. Heart Disease and Stroke Statistics - 2006 Update. 2006.
2. Ryan TJ, Anderson JL, Antman EM, Braniff BA, Brooks NH, Califf RM et al. ACC/AHA guidelines for the management of patients with acute myocardial infarction: executive summary. A report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Committee on Management of Acute Myocardial Infarction). *Circulation* 1996; 94(9):2341-2350.
3. National Heart Lung and Blood Institute. Heart Attack. http://www.nhlbi.nih.gov/health/dci/Diseases/HeartAttack/HeartAttack_WhatIs.html Updated: 2003.
4. Tavazzi L. Clinical epidemiology of acute myocardial infarction. *Am Heart J* 1999; 138(2 Pt 2):S48-S54.
5. Heart Disease and Stroke Statistics - 2006 Update.
6. Phillips KA, Shlipak MG, Coxson P, Heidenreich PA, Hunink MG, Goldman PA et al. Health and economic benefits of increased beta-blocker use following myocardial infarction. *JAMA* 2000; 284(21):2748-2754.
7. Heart Disease and Stroke Statistics - 2006 Update.
8. Gottlieb SS, McCarter RJ, Vogel RA. Effect of beta-blockade on mortality among high-risk and low-risk patients after myocardial infarction. *N Engl J Med* 1998; 339(8):489-497.

REFERENCES

9. Ryan TJ, Antman EM, Brooks NH, Califf RM, Hillis LD, Hiratzka LF et al. 1999 update: ACC/AHA Guidelines for the Management of Patients With Acute Myocardial Infarction: Executive Summary and Recommendations: A report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Committee on Management of Acute Myocardial Infarction). *Circulation* 1999; 100(9):1016-1030.
10. Ventura HO. Benefits of inpatient initiation of beta-blockers. *Am Heart J* 2004; 148(6):944-950.
11. Health and economic benefits of increased beta-blocker use following myocardial infarction.
12. Cowper PA, DeLong ER, Whellan DJ, Allen LaPointe NM, Califf RM. Economic effects of beta-blocker therapy in patients with heart failure. *Am J Med* 2004; 116(2):104-111.

BREAST CANCER SCREENING

1. American Cancer Society. Breast Cancer Facts & Figures 2005-2006. http://www.cancer.org/docroot/STT/content/STT_1x_Breast_Cancr_Facts_Figures_2005-2006.asp Updated: 2006.
2. National Cancer Institute. Screening Mammograms: Questions and Answers. <http://www.cancer.gov/cancertopics/factsheet/Detection/screening-mammograms> Updated: 5-23-2006.
3. Gotzsche PC, Olsen O. Is screening for breast cancer with mammography justifiable? *Lancet* 2000; 355(9198):129-134.
4. Lee CH. Screening mammography: proven benefit, continued controversy. *Radiol Clin North Am* 2002; 40(3):395-407.
5. Karl H. Breast Cancer. *The Health Gazette*. 2000.
6. Centers for Disease Control and Prevention. Breast Cancer and Mammography Information. <http://www.cdc.gov/cancer/nbccedp/info-bc.htm> Updated: 2-3-2006.
7. Imaginis Corporation. Breast Cancer Screening/Prevention. <http://www.imaginis.com/breasthealth/screening.asp> Updated: 2006.
8. Humphrey LL, Helfand M, Chan BK, Woolf SH. Breast cancer screening: a summary of the evidence for the U.S. Preventive Services Task Force. *Ann Intern Med* 2002; 137(5 Part 1):347-360.
9. Radice D, Redaelli A. Breast cancer management: quality-of-life and cost considerations. *Pharmacoeconomics* 2003; 21(6):383-396.
10. Breast Cancer. *The Health Gazette* .
11. Centers for Disease Control and Prevention. Screening to Prevent Cancer Deaths. <http://www.cdc.gov/NCCdphp/publications/factsheets/Prevention/cancer.htm> Updated: 5-3-2006.
12. Pacific Coast Medical Imaging. Corporate Screening: Employer Benefits. <http://www.mobilemammo.com/corporate.htm> Updated: 2002.

CERVICAL CANCER SCREENING

1. National Cancer Institute. Cervical Cancer Screening: Summary of Evidence. <http://www.cancer.gov/cancertopics/pdq/screening/cervical/healthprofessional/page1> Updated: 5-22-2006.
2. American Cancer Society. Cancer: Facts & Figures 2006. 2006.
3. Jenkins D. Diagnosing human papillomaviruses: recent advances. *Curr Opin Infect Dis* 2001; 14(1):53-62.
4. Cervical Cancer Screening: Summary of Evidence .
5. McMeekin DS, McGonigle KF, Vasilev SA. Cervical Cancer Prevention: Toward Cost-Effective Screening. *Medscape Womens Health* 1997; 2(12):1.
6. Food and Drug Administration. New Devices Aim at Improving Pap Test Accuracy. (FDA) 97-4264. 2006. 7-19-0006.
7. Hildesheim A, Hadjimichael O, Schwartz PE, et al. Risk factors for rapid-onset cervical cancer. *Am J Obstet Gynecol* 1999;180(3 Pt 1):571-577.
8. Janerich DT, Hadjimichael O, Schwartz PE, et al. The screening histories of women with invasive cervical cancer, Connecticut. *Am J Public Health* 1995;85(6):791-794.

REFERENCES

CHILDHOOD IMMUNIZATION STATUS

1. CDC, National Immunization Program. The Importance of Immunizations. <http://www.cdc.gov/nip/publications/fs/gen/importance.htm> Last accessed Sept. 1, 2006.
2. Shepard CW, Finelli L, Fiore AE, Bell BP. Epidemiology of hepatitis B and hepatitis B virus infection in United States children. *Pediatr Infect Dis J* 2005; 24(9):755-760.
3. Rosenstein NE, Perkins BA, Stephens DS, Lefkowitz L, Cartter ML, Danila R et al. The changing epidemiology of meningococcal disease in the United States, 1992-1996. *J Infect Dis* 1999; 180(6):1894-1901.
4. Centers for Disease Control and Prevention. Progress toward elimination of Haemophilus influenzae type b invasive disease among infants and children--United States, 1998-2000. *MMWR Morb Mortal Wkly Rep* 2002; 51(11):234-237.
5. Centers for Disease Control and Prevention. What Would Happen if We Stopped Vaccinations. <http://www.cdc.gov/nip/publications/fs/gen/WhatIfStop.htm> Updated: 2003.
6. Zhou F, Santoli J, Messonnier ML, Yusuf HR, Shefer A, Chu SY et al. Economic evaluation of the 7-vaccine routine childhood immunization schedule in the United States, 2001. *Arch Pediatr Adolesc Med* 2005; 159(12):1136-1144.
7. Centers for Disease Control and Prevention. Varicella Disease & Herpes Zoster. <http://www.cdc.gov/nip/diseases/varicella/faqs-clinic-disease.htm> Updated: 2001.
8. Centers for Disease Control and Prevention. Ten great public health achievements--United States, 1900-1999. *MMWR Morb Mortal Wkly Rep* 1999; 48(12):241-243.
9. Abramson JS, Pickering LK. US Immunization Policy. *JAMA* 2002; 287(4):505-509.

CHLAMYDIA SCREENING

1. Centers for Disease Control and Prevention. Chlamydia - CDC Fact Sheet. <http://www.cdc.gov/std/Chlamydia/STDFact-Chlamydia.htm> Updated: 2006.
2. Ibid.
3. Ibid.
4. Centers for Disease Control and Prevention. Chlamydia Prevalence Monitoring Project Annual Report. <http://www.cdc.gov/std/Chlamydia2004/> Updated: 2005.
5. Sheffield JS, Andrews WW, Klebanoff MA, Macpherson C, Carey JC, Ernest JM et al. Spontaneous resolution of asymptomatic Chlamydia trachomatis in pregnancy. *Obstet Gynecol* 2005; 105(3):557-562.
6. Shafer MA, Tebb KP, Pantell RH, Wibbelsman CJ, Neuhaus JM, Tipton AC et al. Effect of a clinical practice improvement intervention on Chlamydial screening among adolescent girls. *JAMA* 2002; 288(22):2846-2852.
7. Pozniak AL. Screening for chlamydia: what is the cost? *Curr Opin Infect Dis* 2005; 18(1):35-36.
8. Centers for Disease Control and Prevention. Recommendations for the prevention and management of Chlamydia trachomatis infections, 1993 *MMWR* 1993. 42(RR-12): 1-39.
9. Washington AE, Katz P. Cost of and payment sources for pelvic inflammatory disease. Trends and projections, 1983 through 2000 *JAMA* 1991. 266: 2565-2569.
10. Mangione-Smith R, McGlynn EA, Hiatt L. Screening for chlamydia in adolescents and young women. *Arch Pediatr Adolesc Med* 2000; 154(11):1108-1113.

COLORECTAL CANCER SCREENING

1. American Cancer Society. Colon Cancer. http://www.cancer.org/docroot/PRO/content/PRO_1_1x_Colorectal_Cancer.pdf.asp?sitearea=PRO Updated: 7-14-2006.
2. Ibid.
3. American Cancer Society. Colon Cancer.
4. American Cancer Society. Colorectal Cancer: Early Detection. http://www.cancer.org/docroot/CRI/content/CRI_2_6X_Colorectal_Cancer_Early_Detection_10.asp Updated: 7-14-2006.

REFERENCES

5. Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia, U.S. Department of Health and Human Services, Centers for Disease Control and Prevention.
6. American Cancer Society. Colorectal Cancer: Early Detection. http://www.cancer.org/docroot/CRI/content/CRI_2_6X_Colorectal_Cancer_Early_Detection_10.asp Updated: 7-14-2006.
7. Goel MS, Wee CC, McCarthy EP, Davis RB, Ngo-Metzger Q, Phillips RS. Racial and Ethnic Disparities in Cancer Screening. The Importance of Foreign Birth as a Barrier to Care. *Journal of General Internal Medicine* 2003; 18(12):1028-1035.
8. Rosen AB, Schneider EC. Colorectal Cancer Screening Disparities Related to Obesity and Gender. *Journal of General Internal Medicine* 2004; 19(4):332-338.
9. Redaelli A, Cranor CW, Okano GJ, Reese PR. Screening, prevention and socioeconomic costs associated with the treatment of colorectal cancer. *Pharmacoeconomics* 2003; 21(17):1213-1238.
10. Colorectal Cancer Screening Disparities Related to Obesity and Gender.
11. Schrag D, Weeks J. Costs and cost-effectiveness of colorectal cancer prevention and therapy. *Semin Oncol* 1999; 26(5):561-568.
12. Screening, prevention and socioeconomic costs associated with the treatment of colorectal cancer.
13. Colorectal Cancer: Early Detection.

COMPREHENSIVE DIABETES CARE

1. National Institute of Diabetes and Digestive and Kidney Diseases. National Diabetes Statistics Updated: 2005
2. American Heart Association. Heart Disease and Stroke Statistics - 2006 Update. 2006.
3. Ibid.
4. National Institute of Diabetes and Digestive and Kidney Diseases. Kidney Disease of Diabetes. <http://kidney.niddk.nih.gov/kudiseases/pubs/kdd/index.htm> Updated: 2006.
5. National Diabetes Statistics Updated: 2005
6. Centers for Disease Control and Prevention. National diabetes fact sheet: general information and national estimates on diabetes in the United States, 2005. <http://www.diabetes.org/uedocuments/NationalDiabetesFactSheetRev.pdf> Updated: 2005.
7. National Diabetes Statistics Updated: 2005
8. Ibid.
9. American Diabetes Association. <http://www.diabetes.org/heart-disease-stroke.jsp>. <http://www.diabetes.org/type-1-diabetes/well-being/link-healthprof.jsp> Updated: 2006.
10. National Institute of Diabetes and Digestive and Kidney Diseases. Diabetes Control and Complications Trial (DCCT). <http://diabetes.niddk.nih.gov/dm/pubs/control/> Updated: 2001.
11. Heart Disease and Stroke Statistics - 2006 Update.
12. Diabetes Control and Complications Trial (DCCT).
13. Hogan P, Dall T, Nikolov P. Economic costs of diabetes in the US in 2002. *Diabetes Care* 2003; 26(3):917-932.
14. Ibid.
15. Ng YC, Jacobs P, Johnson JA. Productivity losses associated with diabetes in the US. *Diabetes Care* 2001; 24(2):257-261.

REFERENCES

CONTROLLING HIGH BLOOD PRESSURE

1. Wang TJ, Vasan RS. Epidemiology of uncontrolled hypertension in the United States. *Circulation* 2005; 112(11):1651-1662.
2. Ibid.
3. Jones DW, Hall JE. The National High Blood Pressure Education Program: Thirty Years and Counting. *Hypertension* 2002; 39(5):941-942.
4. Seshadri S, Beiser A, Kelly-Hayes M, Kase CS, Au R, Kannel WB et al. The Lifetime Risk of Stroke: Estimates From the Framingham Study. *Stroke* 2006; 37(2):345-350.
5. The National High Blood Pressure Education Program: Thirty Years and Counting.
6. American Heart Association. Heart Disease and Stroke Statistics - 2006 Update. 2006.
7. Franco OH, Peeters A, Bonneux L, de Laet C. Blood pressure in adulthood and life expectancy with cardiovascular disease in men and women: life course analysis. *Hypertension* 2005; 46(2):280-286.
8. Heart Disease and Stroke Statistics - 2006 Update..
9. Chobanian AV, Bakris GL, Black HR, Cushman WC, Green LA, Izzo JL, Jr. et al. Seventh report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure. *Hypertension* 2003; 42(6):1206-1252.

DISEASE MODIFYING ANTI-RHEUMATIC THERARY IN RHEUMATOID ARTHRITIS

1. Hochberg MC, Spector TD. Epidemiology of rheumatoid arthritis: update. *Epidemiol Rev* 1990; 12:247-252.
2. McDuffie FC. Morbidity impact of rheumatoid arthritis on society. *Am J Med* 1985; 78(1A):1-5.
3. Alarcon GS. Epidemiology of rheumatoid arthritis. *Rheum Dis Clin North Am* 1995; 21(3):589-604.
4. American College of Rheumatology. Rheumatoid Arthritis. http://www.rheumatology.org/public/factsheets/ra_new.asp Updated: 2005.
5. Muchmore L, Lynch WD, Gardner HH, Williamson T, Burke T. Prevalence of arthritis and associated joint disorders in an employed population and the associated healthcare, sick leave, disability, and workers' compensation benefits cost and productivity loss of employers. *J Occup Environ Med* 2003; 45(4):369-378.
6. Reginster JY. The prevalence and burden of arthritis. *Rheumatology (Oxford)* 2002; 41 Supp 1:3-6.
7. Lawrence RC, Helmick CG, Arnett FC, Deyo RA, Felson DT, Giannini EH et al. Estimates of the prevalence of arthritis and selected musculoskeletal disorders in the United States. *Arthritis Rheum* 1998; 41(5):778-799.
8. Pincus T, O'Dell JR, Kremer JM. Combination therapy with multiple disease-modifying antirheumatic drugs in rheumatoid arthritis: a preventive strategy. *Ann Intern Med* 1999; 131(10):768-774.
9. Ibid.
10. Harris, E.E., and R. Zorab (editors) Rheumatoid Arthritis. Philadelphia: WB Saunders Company, 1997.
11. Ibid.
12. Combination therapy with multiple disease-modifying antirheumatic drugs in rheumatoid arthritis: a preventive strategy.

FLU SHOTS FOR ADULTS

1. Centers for Disease Control and Prevention. Key Factors About Influenza and Influenza Vaccine. <http://www.cdc.gov/flu/keyfacts.htm> Updated: 9-28-2005.
2. Centers for Disease Control and Prevention. Prevention and Control of Influenza Recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR Morb Mortal Wkly Rep* 2006; 55(Early Release):1-41.
3. Thompson WW, Shay DK, Weintraub E, Brammer L, Bridges CB, Cox NJ et al. Influenza-Associated Hospitalizations in the United States. *JAMA* 2004; 292(11):1333-1340.

REFERENCES

4. Thompson WW, Shay DK, Weintraub E, Brammer L, Cox N, Anderson LJ et al. Mortality Associated With Influenza and Respiratory Syncytial Virus in the United States. *JAMA* 2003; 289(2):179-186.
5. Centers for Disease Control and Prevention. Questions & Answers: Flu Shot. <http://www.cdc.gov/flu/about/qa/flushot.htm> Updated: 9-7-2005.
6. Prevention and Control of Influenza Recommendations of the Advisory Committee on Immunization Practices (ACIP).
7. Centers for Disease Control and Prevention. Public health and aging: influenza vaccination coverage among adults aged > or =50 years and pneumococcal vaccination coverage among adults aged > or =65 years—United States, 2002. *MMWR Morb Mortal Wkly Rep* 2003; 52(41):987-992.
8. Centers for Disease Control and Prevention. Influenza Vaccine Bulletin #1. http://www.cdc.gov/flu/professionals/bulletin/2005-06/bulletin1_062905.htm Updated: 6-29-2006.
9. Ibid.
10. Nichol KL. The efficacy, effectiveness and cost-effectiveness of inactivated influenza virus vaccines. *Vaccine* 2003; 21(16):1769-1775.
11. National Foundation for Infectious Diseases. Facts About Influenza for Adults. <http://www.nfid.org/pdf/factsheets/influadult.pdf> Updated: 2005.
12. Nichol KL. The efficacy, effectiveness and cost-effectiveness of inactivated influenza virus vaccines. *Vaccine* 2003; 21(16):1769-1775.
13. Akazawa M, Sindelar JL, Paltiel AD. Economic costs of influenza-related work absenteeism. *Value Health* 2003; 6(2):107-115.

FOLLOW-UP AFTER HOSPITALIZATION FOR MENTAL ILLNESS

1. Demyttenaere K, Bruffaerts R, Posada-Villa J, Gasquet I, Kovess V, Lepine JP et al. Prevalence, severity, and unmet need for treatment of mental disorders in the World Health Organization World Mental Health Surveys. *JAMA* 2004; 291(21):2581-2590.
2. Ibid.
3. American Psychiatric Association. Practice guideline for major depressive disorder in adults. *Am J Psychiatry* 1993; 150(4 Suppl):1-26.
4. Boydell KM, Malcolmson SA, Sikerbol K. Early rehospitalization. *Can J Psychiatry* 1991; 36(10):743-745.
5. Coughnard A, Parrot M, Grolleau S, Kalmi E, Desage A, Misdrabi D et al. Pattern of health service utilization and predictors of readmission after a first admission for psychosis: a 2-year follow-up study. *Acta Psychiatr Scand* 2006; 113(4):340-349.
6. Compton MT, Rudisch BE, Craw J, Thompson T, Owens DA. Predictors of missed first appointments at community mental health centers after psychiatric hospitalization. *Psychiatr Serv* 2006; 57(4):531-537.
7. U.S. Department of Health and Human Services. Mental Health: A Report of the Surgeon General. 1999. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health.
8. American Psychological Association. The Costs of Failing to Provide Appropriate Mental Health Care. <http://www.apa.org/practice/failing.html> Updated: 2006.
9. Ibid.
10. Ibid.
11. Thieda P, Beard S, Richter A, Kane J. An economic review of compliance with medication therapy in the treatment of schizophrenia. *Psychiatr Serv* 2003; 54(4):508-516.
12. Wu EQ, Birnbaum HG, Shi L, Ball DE, Kessler RC, Moulis M et al. The economic burden of schizophrenia in the United States in 2002. *J Clin Psychiatry* 2005; 66(9):1122-1129.

REFERENCES

FOLLOW-UP CARE FOR CHILDREN PRESCRIBED ADHD MEDICATION

1. Goldman LS, Genel M, Bezman RJ, Slanetz PJ. Diagnosis and treatment of attention-deficit/hyperactivity disorder in children and adolescents. Council on Scientific Affairs, American Medical Association. *JAMA* 1998; 279(14):1100-1107.
2. American Academy of Pediatrics. Clinical practice guideline: diagnosis and evaluation of the child with attention-deficit/hyperactivity disorder. *Pediatrics* 2000; 105(5):1158-1170.
3. American Academy of Pediatrics. Clinical practice guideline: treatment of the school-aged child with attention-deficit/hyperactivity disorder. *Pediatrics* 2001; 108(4):1033-1044.
4. Harpaz-Rotem I, Rosenheck RA. Prescribing practices of psychiatrists and primary care physicians caring for children with mental illness. *Child Care Health Dev* 2006; 32(2):225-237.
5. Rushton JL, Fant KE, Clark SJ. Use of practice guidelines in the primary care of children with attention-deficit/hyperactivity disorder. *Pediatrics* 2004; 114(1):e23-e28.
6. Leibson CL, Long KH. Economic implications of attention-deficit hyperactivity disorder for healthcare systems. *Pharmacoeconomics* 2003; 21(17):1239-1262.
7. Diagnosis and treatment of attention-deficit/hyperactivity disorder in children and adolescents.
8. Leibson CL, Barbaresi WJ, Ransom J, Colligan RC, Kemner J, Weaver AL et al. Emergency department use and costs for youth with attention-deficit/hyperactivity disorder: associations with stimulant treatment. *Ambul Pediatr* 2006; 6(1):45-53.

GLAUCOMA SCREENING IN OLDER ADULTS

1. American Health Assistance Foundation. The facts about Glaucoma. <http://www.ahaf.org/glaucoma/about/glabout.htm> Updated: 2005.
2. National Eye Institute. Prevent Blindness America: Vision Problems in the U.S. 2002.
3. The facts about Glaucoma.
4. Quigley HA, Jampel HD. How are glaucoma patients identified? *J Glaucoma* 2003; 12(6):451-455.
5. Ibid.
6. Glaucoma Research Foundation. Glaucoma Facts and Stats. http://www.glaucoma.org/learn/glaucoma_facts.html Updated: 2006.
7. How are glaucoma patients identified?
8. Rowe S, MacLean CH, Shekelle PG. Preventing visual loss from chronic eye disease in primary care: scientific review. *JAMA* 2004; 291(12):1487-1495.
9. Gutierrez P, Wilson MR, Johnson C, Gordon M, Cioffi GA, Ritch R et al. Influence of glaucomatous visual field loss on health-related quality of life. *Arch Ophthalmol* 1997; 115(6):777-784.
10. Hattenhauer MG, Johnson DH, Ing HH, Herman DC, Hodge DO, Yawn BP et al. The probability of blindness from open-angle glaucoma. *Ophthalmology* 1998; 105(11):2099-2104.
11. Lee PP, Walt JG, Doyle JJ, Kotak SV, Evans SJ, Budenz DL et al. A multicenter, retrospective pilot study of resource use and costs associated with severity of disease in glaucoma. *Arch Ophthalmol* 2006; 124(1):12-19.
12. Screening for Glaucoma in the Primary Care Setting. Clinical Practice Guidelines for the Veterans Health Administration. Version 1.2. May, 2000. Information provided by the National Eye Institute, National Institutes of Health. http://www.oqp.med.va.gov/cpg/glaucoma/G/Glaucoma12_cpg.doc Last accessed Sept. 1, 2006.

IMAGING STUDIES FOR LOW BACK PAIN

1. Jarvik JG, Deyo RA. Diagnostic evaluation of low back pain with emphasis on imaging. *Ann Intern Med* 2002; 137(7):586-597.
2. Lawrence RC, Helmick CG, Arnett FC, Deyo RA, Felson DT, Giannini EH et al. Estimates of the prevalence of arthritis and selected musculoskeletal disorders in the United States. *Arthritis Rheum* 1998; 41(5):778-799.

REFERENCES

3. American College of Radiology. Acute Low Back Pain - Radiculopathy. <http://www.acr.org> Updated: 2006.
4. Mounce K. Back pain. *Rheumatology (Oxford)* 2002; 41(1):1-5.
5. Manek NJ, MacGregor AJ. Epidemiology of back disorders: prevalence, risk factors, and prognosis. *Curr Opin Rheumatol* 2005; 17(2):134-140.
6. Miller P, Kendrick D, Bentley E, Fielding K. Cost-effectiveness of lumbar spine radiography in primary care patients with low back pain. *Spine* 2002; 27(20):2291-2297.
7. Ehrlich GE. Low back pain. *Bull World Health Organ* 2003; 81(9):671-676.
8. Atlas SJ, Deyo RA. Evaluating and managing acute low back pain in the primary care setting. *J Gen Intern Med* 2001; 16(2):120-131.
9. Jarvik JG, Hollingworth W, Martin B, Emerson SS, Gray DT, Overman S et al. Rapid magnetic resonance imaging vs radiographs for patients with low back pain: a randomized controlled trial. *JAMA* 2003; 289(21):2810-2818.
10. Kovacs FM, Abraira V, Zamora J, Teresa Gil dR, Llobera J, Fernandez C et al. Correlation between pain, disability, and quality of life in patients with common low back pain. *Spine* 2004; 29(2):206-210.
11. Luo X, Pietrobon R, Sun SX, Liu GG, Hey L. Estimates and patterns of direct health care expenditures among individuals with back pain in the United States. *Spine* 2004; 29(1):79-86.
12. Koes BW, van Tulder MW, Thomas S. Diagnosis and treatment of low back pain. *BMJ* 2006; 332(7555):1430-1434.

INAPPROPRIATE ANTIBIOTIC TREATMENT FOR ADULTS WITH ACUTE BRONCHITIS

1. Braman SS. Chronic cough due to acute bronchitis: ACCP evidence-based clinical practice guidelines. *Chest* 2006; 129(1 Suppl):95S-103S.
2. Ibid.
3. Gonzales R, Bartlett JG, Besser RE, Cooper RJ, Hickner JM, Hoffman JR et al. Principles of appropriate antibiotic use for treatment of uncomplicated acute bronchitis: background. *Ann Intern Med* 2001; 134(6):521-529.
4. Ibid.
5. Scott JG, Cohen D, DiCicco-Bloom B, Orzano AJ, Jaen CR, Crabtree BF. Antibiotic use in acute respiratory infections and the ways patients pressure physicians for a prescription. *J Fam Pract* 2001; 50(10):853-858.
6. Roumie CL, Halasa NB, Grijalva CG, Edwards KM, Zhu Y, Dittus RS et al. Trends in antibiotic prescribing for adults in the United States--1995 to 2002. *J Gen Intern Med* 2005; 20(8):697-702.
7. Steinman MA, Sauaia A, Maselli JH, Houck PM, Gonzales R. Office evaluation and treatment of elderly patients with acute bronchitis. *J Am Geriatr Soc* 2004; 52(6):875-879.
8. Antibiotic use in acute respiratory infections and the ways patients pressure physicians for a prescription.
9. Amsden GW. Pneumococcal macrolide resistance--myth or reality? *J Antimicrob Chemother* 1999; 44(1):1-6.
10. Feikin DR, Schuchat A, Kolczak M, Barrett NL, Harrison LH, Lefkowitz L et al. Mortality from invasive pneumococcal pneumonia in the era of antibiotic resistance, 1995-1997. *Am J Public Health* 2000; 90(2):223-229.
11. Pneumococcal macrolide resistance--myth or reality?
12. Mortality from invasive pneumococcal pneumonia in the era of antibiotic resistance, 1995-1997.
13. Holmberg SD, Solomon SL, Blake PA. Health and economic impacts of antimicrobial resistance. *Rev Infect Dis* 1987; 9(6):1065-1078.
14. Rosenstein N, Phillips WR, Gerber MA, Marcy SM, Schwartz B, Dowell SF. The Common Cold---Principles of Judicious Use of Antimicrobial Agents. *Pediatrics* 1998; 101(1):181-184.

REFERENCES

INITIATION/ENGAGEMENT OF ALCOHOL AND OTHER DRUG DEPENDENCE TREATMENT

1. Substance Abuse and Mental Health Services Administration. Results from the 2004 National Survey on Drug Use and Health: National Findings. 2005.
2. McLellan AT, Belding M, McKay JR, Zanis D, Alterman AI. Can the Outcomes Research Literature Inform the Search for Quality Indicators in Substance Abuse. In: Margaret Edmunds, editor. *Managing Managed Care : Quality Improvements in Behavioral Health*. Washington, DC: National Academy Press, 1997.
3. Institute of Medicine (IOM). *Broadening the base of treatment for alcohol problems*. 1990. Washington, DC, National Academy Press.
4. Results from the 2004 National Survey on Drug Use and Health: National Findings.
5. Schneider Institute for Health Policy BU. *Substance abuse : the nation's number one health problem : key indicators for policy - update*. 2001. Princeton, NJ, Robert Wood Johnson Foundation.
6. Mokdad AH, Marks JS, Stroup DF, Gerberding JL. Actual causes of death in the United States, 2000. *JAMA* 2004; 291(10):1238-1245.
7. Enoch MA, Goldman D. Problem drinking and alcoholism: diagnosis and treatment. *Am Fam Physician* 2002; 65(3):441-448.
8. Hanson GR, Li TK. Public health implications of excessive alcohol consumption. *JAMA* 2003; 289(8):1031-1032.
9. Ibid.
10. McCollister KE, French MT. The relative contribution of outcome domains in the total economic benefit of addiction interventions: a review of first findings. *Addiction* 2003; 98(12):1647-1659.
11. National Institute on Drug Abuse. NIDA InfoFacts: Drug Addiction Treatment Methods. <http://www.nida.nih.gov/infofacts/treatmeth.html> Updated: 2004.

MEDICAL ASSISTANCE WITH SMOKING CESSATION

1. Fiore MC, Bailey WC, Cohen SJ. *Treating Tobacco Use and Dependence, Clinical Practice Guideline*. 2000. US Department of Health and Human Services.
2. Centers for Disease Control and Prevention. *Cigarette smoking among adults--United States, 2004*. *MMWR Morb Mortal Wkly Rep* 2005; 54(44):1121-1124.
3. Office of the Surgeon General. *The Health Consequences of Smoking: A Report of the Surgeon General*. 2004. Department of Health and Human Services.
4. World Health Organization. *Why is tobacco a public health priority?* http://www.who.int/tobacco/health_priority/en/index.html Updated: 2006.
5. *Cigarette smoking among adults--United States, 2004*.
6. Cokkinides VE, Ward E, Jemal A, Thun MJ. Under-use of smoking-cessation treatments: results from the National Health Interview Survey, 2000. *Am J Prev Med* 2005; 28(1):119-122.
7. Cromwell J, Bartosch WJ, Fiore MC, Hasselblad V, Baker T. Cost-effectiveness of the clinical practice recommendations in the AHCPR guideline for smoking cessation. Agency for Health Care Policy and Research. *JAMA* 1997; 278(21):1759-1766.
8. Ibid.
9. Results from the 2004 National Survey on Drug Use and Health: National Findings.
10. Results from the 2004 National Survey on Drug Use and Health: National Findings.
11. *Problem drinking and alcoholism: diagnosis and treatment*.
12. Taylor DH, Jr., Hasselblad V, Henley SJ, Thun MJ, Sloan FA. Benefits of Smoking Cessation for Longevity. *Am J Public Health* 2002; 92(6):990-996.
13. Centers for Disease Control and Prevention. *Annual smoking-attributable mortality, years of potential life lost, and productivity losses--United States, 1997-2001*. *MMWR Morb Mortal Wkly Rep* 2005; 54(25):625-628.
14. Ibid.

REFERENCES

OSTEOPOROSIS MANAGEMENT IN WOMEN WHO HAD A FRACTURE

1. National Osteoporosis Foundation. Fast Facts. <http://www.nof.org/osteoporosis/diseasefacts.htm> Updated: 2006
2. National Institute of Arthritis and Musculoskeletal and Skin Diseases. Osteoporosis Overview. <http://www.osteo.org/newfile.asp?doc=r106i&doctitle=Osteoporosis+Overview+%2D+HTML+Version&doctype=HTML+Fact+Sheet> Updated: 2006.
3. National Institute of Arthritis and Musculoskeletal and Skin Diseases. Once Is Enough: A Guide to Preventing Future Fractures Updated: 2006.
4. Lacroix AZ, Buist DS, Brenneman SK, Abbott TA, III. Evaluation of three population-based strategies for fracture prevention: results of the osteoporosis population-based risk assessment (OPRA) trial. *Med Care* 2005; 43(3):293-302.
5. Melton LJ, III, Thamer M, Ray NF, Chan JK, Chesnut CH, III, Einhorn TA et al. Fractures attributable to osteoporosis: report from the National Osteoporosis Foundation. *J Bone Miner Res* 1997; 12(1):16-23.
6. Casebeer L, James N. Practice pattern variation in the prevention and treatment of osteoporosis. *Curr Opin Rheumatol* 2002; 14(4):453-457.
7. Andrade SE, Majumdar SR, Chan KA, Buist DS, Go AS, Goodman M et al. Low frequency of treatment of osteoporosis among postmenopausal women following a fracture. *Arch Intern Med* 2003; 163(17):2052-2057.
8. Empana JP, Dargent-Molina P, Breart G. Effect of hip fracture on mortality in elderly women: the EPIDOS prospective study. *J Am Geriatr Soc* 2004; 52(5):685-690.
9. Kado DM, Browner WS, Palermo L, Nevitt MC, Genant HK, Cummings SR. Vertebral fractures and mortality in older women: a prospective study. Study of Osteoporotic Fractures Research Group. *Arch Intern Med* 1999; 159(11):1215-1220.
10. U.S. Department of Health and Human Services. Bone Health and Osteoporosis: A Report of the Surgeon General. 2004. Rockville, MD, U.S. Department of Health and Human Services, Office of the Surgeon General.

PRENATAL AND POSTPARTUM CARE

1. Centers for Disease Control and Prevention. Safe Motherhood: Promoting Health for Women Before, During and After Pregnancy, 2006. 2006. 7-20-0006.
2. From the March of Dimes website on Perinatal statistics <http://www.marchofdimes.com/peristats/tlanding.aspx>. Last accessed August 31, 2006.
3. Safe Motherhood: Promoting Health for Women Before, During and After Pregnancy, 2006.
4. Chang J, Elam-Evans LD, Berg CJ, Herndon J, Flowers L, Seed KA et al. Pregnancy-related mortality surveillance--United States, 1991--1999. *MMWR Surveill Summ* 2003; 52(2):1-8.
5. Mathews TJ, MacDorman MF. Infant mortality statistics from the 2003 period linked birth/infant death data set. *Natl Vital Stat Rep* 2006; 54(16):1-29.
6. Ibid.
7. Lu MC, Lin YG, Prietto NM, Garite TJ. Elimination of public funding of prenatal care for undocumented immigrants in California: a cost/benefit analysis. *Am J Obstet Gynecol* 2000; 182(1 Pt 1):233-239.
8. Safe Motherhood: Promoting Health for Women Before, During and After Pregnancy, 2006.
9. Cuevas KD, Silver DR, Brooten D, Youngblut JM, Bobo CM. The cost of prematurity: hospital charges at birth and frequency of rehospitalizations and acute care visits over the first year of life: a comparison by gestational age and birth weight. *Am J Nurs* 2005; 105(7):56-64.

REFERENCES

USE OF APPROPRIATE MEDICATIONS FOR PEOPLE WITH ASTHMA

1. American Lung Association. Trends in Asthma Morbidity and Mortality, 2006. www.lungusa.org. Updated: 2006
2. Ibid.
3. Burton WN, Connerty CM, Schultz AB, et al. Bank One's Worksite-Based Asthma Disease Management Program. *Journal of Occupational & Environmental Medicine* Feb. 2001 75-82.
4. American Lung Association. Asthma & Children Fact Sheet. <http://www.lungusa.org/site/pp.asp?c=dvLUK9O0E&b=44352#four> Updated: 2005.
5. Statement By HHS Secretary Tommy G. Thomspon: Regarding World Asthma Day. <http://www.hhs.gov/news/press/2002pres/20020507.html> Updated: 5-7-2002.
6. Trends in Asthma Morbidity and Mortality, 2006.
7. Ibid.
8. Ibid.
9. Sin DD, Man SF. Low-dose inhaled corticosteroid therapy and risk of emergency department visits for asthma. *Arch Intern Med* 2002; 162(14):1591-1595.
10. Gendo K, Lodewick MJ. Asthma economics: focusing on therapies that improve costly outcomes. *Curr Opin Pulm Med* 2005; 11(1):43-50.

USE OF SPIROMETRY IN THE ASSESSMENT AND DIAGNOSIS OF COPD

1. Mannino DM, Homa DM, Akinbami LJ, Ford ES, Redd SC. Chronic obstructive pulmonary disease surveillance--United States, 1971-2000. *MMWR Surveill Summ* 2002; 51(6):1-16.
2. Snow V, Lascher S, Mottur-Pilson C. The evidence base for management of acute exacerbations of COPD: clinical practice guideline, part 1. *Chest* 2001; 119(4):1185-1189.
3. National Heart Lung and Blood Institute. Chronic Obstructive Pulmonary Disease. http://www.nhlbi.nih.gov/health/public/lung/other/copd_fact.pdf Updated: 2003.
4. Global Initiative for Chronic Obstructive Lung Disease. Global Obstructive. 2005. 7-21-0006.
5. Sutherland ER, Cherniack RM. Management of Chronic Obstructive Pulmonary Disease. *N Engl J Med* 2004; 350(26):2689-2697.
6. Global Initiative for Chronic Obstructive Lung Disease.
7. Sutherland ER. Outpatient treatment of chronic obstructive pulmonary disease: comparisons with asthma. *J Allergy Clin Immunol* 2004; 114(4):715-724.
8. American Lung Association. Chronic Obstructive Pulmonary Disease. <http://www.lungusa.org/site/pp.asp?c=dvLUK9O0E&b=35020> Updated: 2005
9. Chronic obstructive pulmonary disease surveillance--United States, 1971-2000.
10. The evidence base for management of acute exacerbations of COPD: clinical practice guideline, part 1.

ACKNOWLEDGEMENTS

HEALTH PLANS

The State of Health Care Quality 2006 report would not be possible without the willingness of hundreds of health plans to publicly share their performance data. Nearly three-fourths of the nation's HMO and point-of-service plans share their performance data, and for the first time this year, more than 80 PPO plans have done so as well. All are to be commended for supporting accountability and embracing the principles of quality improvement.

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