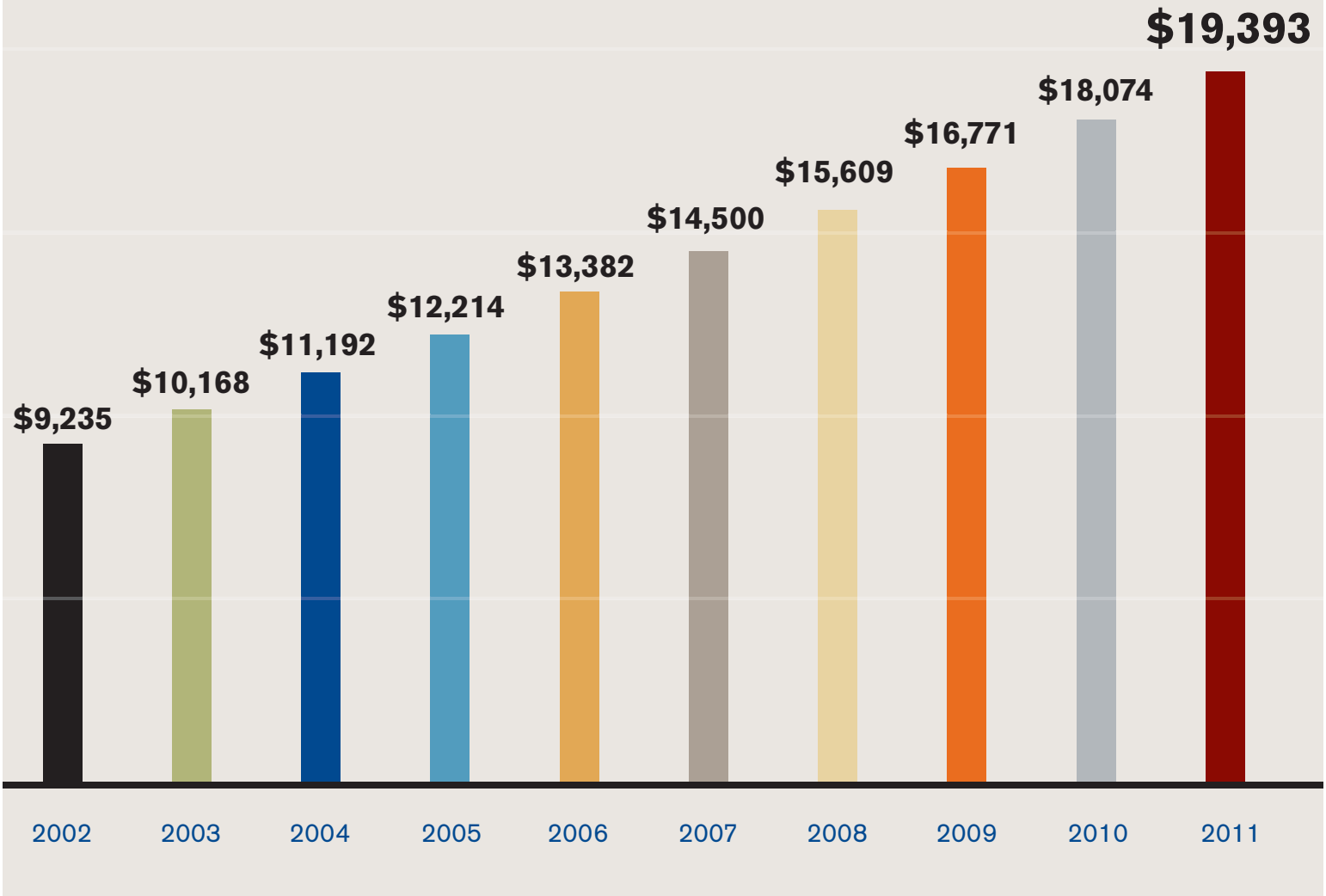
Milliman

May 2011

2011 Milliman Medical Index

Healthcare costs for American families double in less than nine years



Milliman

The annual Milliman Medical Index (MMI) measures the total cost of healthcare for a typical family of four covered by a preferred provider plan (PPO). The 2011 MMI cost is $19,393, an increase of $1,319, or 7.3% over 2010. Even though the rate of increase is slowing from prior years, it has taken fewer than nine years for such costs to more than double. In 2002, the cost of healthcare for the typical family of four was $9,235.

The MMI includes an analysis of costs paid by the employer and costs paid by the employee. An increasing portion of the cost has been borne by the employee–in nine years, the total cost paid by the employee has also more than doubled. In 2002, the employee share of these costs was $3,634 and it now stands at $8,008.

Specific findings

- Between 2010 and 2011, the MMI increased by $1,319 or 7.3%.
- Employees' share of the total cost is at an all-time high, having increased from 36.8% in the first year of the MMI (2005) to 39.7% in 2011.
- The annual rate of increase for the MMI is down 0.5% from 2010 to the lowest rate since the inception of the MMI, but is still in excess of spending increases for most other sectors of the economy.
- Even though hospital spending is only 48% of total healthcare spending, increases in facility spending (inpatient and outpatient combined) account for over 60% of this year's total increase in cost of healthcare.

Market dynamics affecting healthcare costs

- Healthcare reform is an important dynamic but not the primary explanation or source of relief for ongoing health spending trends.
- Substantial geographic differences in costs remain even as efforts continue to improve efficiency and manage costs.
- Insurers, providers, and employers are making efforts to deliver more healthcare value per dollar spent.
- Employers are balancing more considerations than ever in designing benefit plans and they are serious in pursuing greater cost efficiency.

FIGURE 1

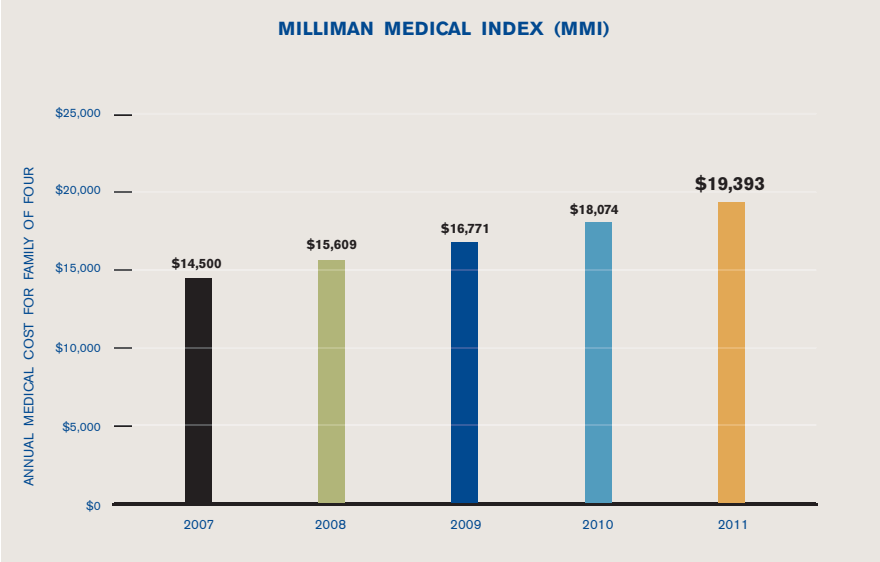
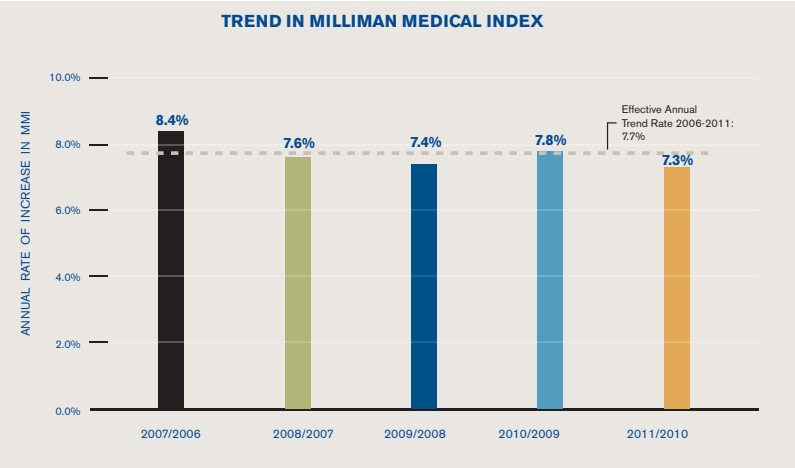


FIGURE 2



The findings for 2011 mark the fourth straight year of MMI trends in the 7%-8% range. This apparently steady period should not be misinterpreted as evidence of a stable environment. Trends in healthcare spending still far exceed most other goods and services. Health benefits make up an ever-increasing share of employers' costs of business and employees' household budgets.[1] Combined with the advent of federal healthcare reform, many stakeholders are looking for ways to wring the maximum value out of every healthcare dollar.

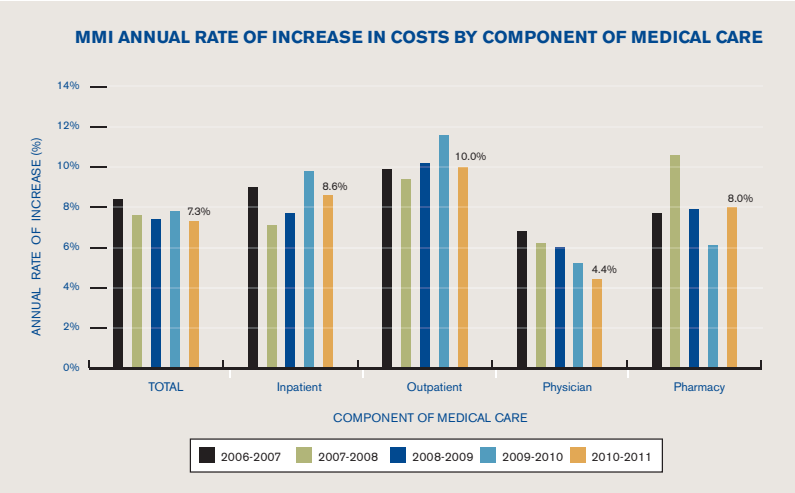
In this year's MMI report, we examine the components of current trend, explain the shifting sources of payment, and describe how some health plans, providers, and employers are responding. While healthcare reform changes are part of the current environment and upcoming changes, these changes are not the only force affecting healthcare cost trends. At the most basic level, healthcare costs are determined by the quantity of services provided at a given cost. To the extent that healthcare reform affects healthcare utilization and/or unit costs, it will contribute to future healthcare cost trends. Ultimately it is the change in the underlying cost of care that matters.

COMPONENTS OF COST

The total cost of care represented by the MMI reflects utilization of care, the amount charged for each service, and the mix of services that are used. We examine the trends in each of these components for each type of medical care provided to our family of four and then summarize those trends by five major categories:

- Inpatient facility care
- Outpatient facility care
- Professional services
- Pharmacy
- Other

FIGURE 3



At 10.0%, the increase in outpatient facility costs is greater than any of the other components of care. This is the third year in a row that outpatient facility costs have increased more than any other component; 90% of that growth is attributable to increases in unit costs, while the rest is the result of increased utilization. Unit costs are increasing both because the same services have increased in price and also because new, more expensive services continue to emerge.

Hospital inpatient care experienced the next highest rate of growth. While utilization was nearly flat at a 0.3% increase over last year, costs per day increased 8.3% for a total annual trend of 8.6%. Because inpatient care represents 31% of total costs, the growth in inpatient costs constitutes the largest single contributor to the 2011 increase in the total MMI. Hospital inpatient costs constitute more than a third of the $1,319 increase in healthcare spending.

1 In 2009, median household income stood at $50,221, according to the U.S. Census Bureau, a decrease from $51,726 in 2008. Source: "Household income for states," issued September 2010. Available at http://www.census.gov/prod/2010pubs/acsbr09-2.pdf.

The total dollars paid for physician care increased 4.4%, the smallest increase among the components of the MMI. This increase is almost entirely due to increases in unit costs. Professional physician services account for one-third of the total cost of care. Miscellaneous other services such as durable medical equipment, ambulance, and home health are a very small portion of the total cost of care for the typical family, but grew 6.9%.

Pharmacy costs rose 8.0%. About a quarter of the increase came from increased usage, while most of the change came from higher average prices.

THE ONGOING QUEST FOR HIGH-QUALITY, AFFORDABLE CARE

As healthcare trends continue to outpace increases in most other areas of the economy, there is continuing pressure from employers, insurers, and even consumers to reduce costs. This pressure continues to be intense as the overall economy continues its recovery and managing every dollar is critical. Efforts to control costs often begin with changes to benefit design and improvements in care coordination.

Consumer-driven health plans (CDHPs): As medical costs have continued to increase, more employers have turned to consumer-driven designs such as high-deductible health plans paired with health savings accounts (HSAs) or health reimbursement accounts (HRAs). These plans are gaining traction, as they are often less expensive for the employer than the PPO designs tracked by the MMI. Employers struggling to control costs increasingly are turning to CDHPs to encourage consumer engagement, resulting in more efficient use of healthcare services.

Value-based benefits: The concept of value-based plan designs has been around for a few years, but the increased shifting of costs to employees has heightened interest in benefit adjustments applied in a more intelligent fashion. Rather than increasing copayments for all office visits, plans increasingly reduce cost sharing for certain preventive and maintenance services that are underutilized–possibly because copayments are a barrier for some employees. At the same time, the plan may increase cost sharing for emergency care or for expensive medications that the plan perceives have marginal value versus less expensive, but equally effective, alternatives. Value-based concepts may also be integrated into programs that serve to improve care coordination, such as accountable care organizations and medical homes.

FIGURE 4

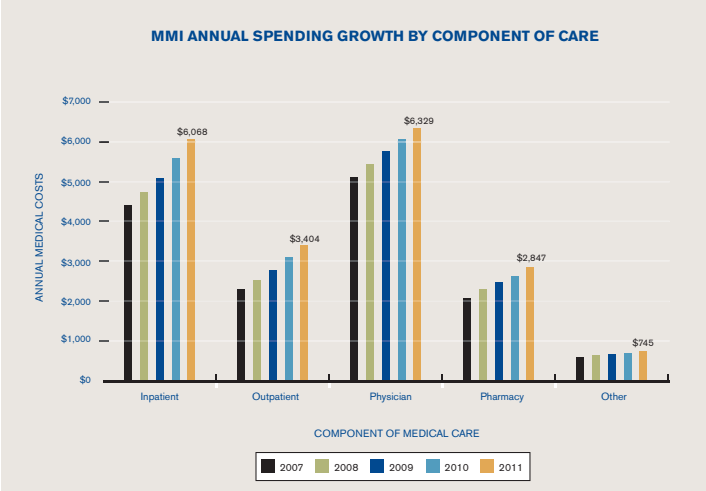
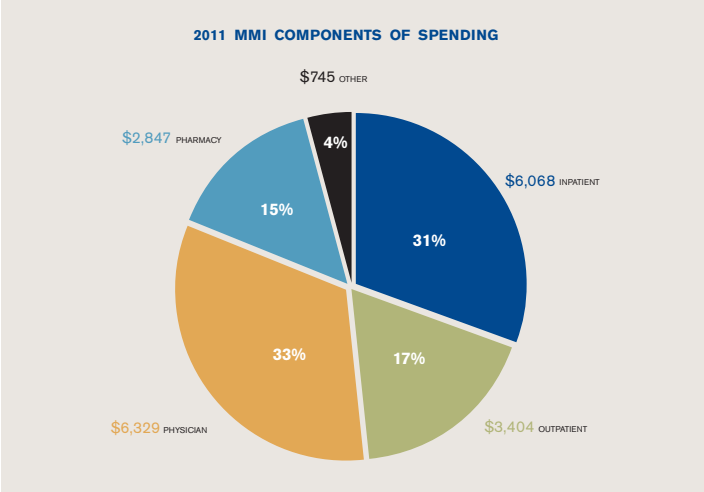


FIGURE 5



Medical homes: Treatment alternatives and management of health and disease are increasingly complicated, even as physicians' time with patients is a limited valuable resource. A primary care relationship that patients can rely on is valuable for everything from getting the right preventive care to managing medication therapy, and appropriately accessing specialty care when necessary. Adjusting payment structures to pay for the provider's time and effort without increasing overall costs requires a shift in resources.

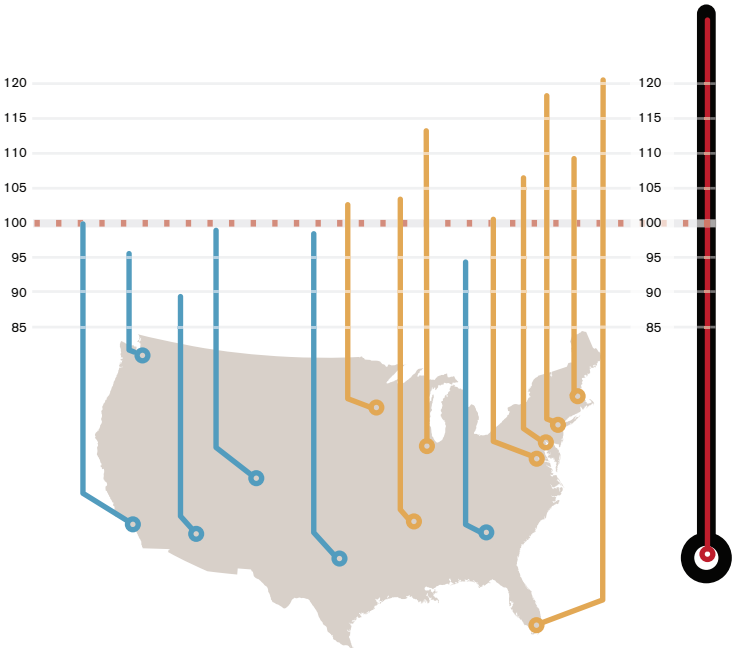
Accountable care organizations (ACOs): Much of today's healthcare is delivered by an array of professionals and facilities, which are paid for the specific services they deliver in a fee-for-service (FFS) system. There's typically little if any financial incentive to coordinate the patient's care with other providers, and limited informational infrastructure to facilitate coordination in a seamless fashion. ACOs are being promoted as an integrated and complete care delivery team that is paid in a way that incentivizes delivering an overall efficient and effective treatment program, rewarding improvement in patient health status.[2]

GEOGRAPHIC COST DIFFERENCES

It's frequently stated that healthcare is local. While the same cost drivers affect trends in each locale, the magnitude of price pressures and utilization is different in each city and changes from year to year. To illustrate these differences, the MMI tracks costs for 14 different cities across the United States. MMI costs in the most expensive of these cities (Miami) are more than a third higher than in the least expensive (Phoenix).

FIGURE 6

Percentage of National Average



City	MMI	National Percentage
Miami	$23,362	120.5%
New York City	$22,785	117.5%
Chicago	$21,996	113.4%
Boston	$21,199	109.3%
Philadelphia	$20,715	106.8%
Memphis	$20,235	104.3%
Minneapolis	$19,944	102.8%
Washington DC	$19,513	100.6%
Nationwide	$19,393	100.0%
Los Angeles	$19,391	100.0%
Denver	$19,189	99.0%
Dallas	$19,080	98.4%
Seattle	$18,536	95.6%
Atlanta	$18,292	94.3%
Phoenix	$17,336	89.4%

There are a number of reasons why costs for any specific family in one of these cities will vary from the national average. For comparison purposes, the MMI equalizes for differences such as plan design, demographics, and actual needs according to health status. What's left in the illustrated differentials by city is a reflection of differences in how care is delivered as well as the amount that providers and payors negotiate as payment for services.

The observed geographic differences in healthcare costs may have additional implications in 2018 when high-cost plans become subject to a 40% excise tax (sometimes called the "Cadillac tax"). At a threshold level of $27,500 for families–and given the doubling of healthcare costs in the last nine years–the highest-cost cities will exceed the threshold level unless a geographic adjustment is applied.

2 Healthcare Town Hall. Archive of ACOs postings. Retrieved May 3, 2011, from http://www.healthcaretownhall.com/?tag=acos.

EMPLOYEES' SHARE OF HEALTHCARE COSTS

Employees took on a larger share of the healthcare cost increase this year, a consistent trend in four out of the last five years. Going forward, employers will need to strike a careful balance between passing on more costs to employees versus potentially paying penalties based on affordability provisions in the Patient Protection and Affordable Care Act (PPACA) (see sidebar on p. 8 for more details).

In order to understand the drivers behind the employer and employee portions, it is necessary to clearly define each source of payment for medical care. For the MMI, we use three main categories:

Employer subsidy. Employers subsidize a portion of the monthly premium costs for their employees' coverage.

Employee contributions. Employees who choose to participate in the plan pay the remainder of the monthly premium costs, usually through payroll deductions.

Employee out-of-pocket cost at time of service. Employees who receive care may have copays, deductibles, and other design elements that are paid out-of-pocket at the time of service.

Figure 7 shows the relative proportions of each of these three categories for 2011. Of the $19,393 medical cost for a family of four, the employer pays about $11,385 in employer subsidy while the employee pays $4,728 in employee contributions and $3,280 in employee out-of-pocket costs. There will continue to be increased focus on the out-of-pocket costs as the PPACA places more focus on the "actuarial value" of plans—a concept predicated on the percentage of a plan's costs that is paid out of pocket by the insured. Figure 8 shows that the MMI's actuarial value has held fairly steady around 83% (moderately richer than a "gold" plan as defined by PPACA) since its inception. The relatively stable actuarial value over time has occurred only because employers have historically adjusted their plan designs on an annual basis to keep up with underlying medical cost trend. Without plan design changes over time, the actuarial value of the 2006 MMI design would have been 87% in 2011—a far more expensive plan design due to the leveraging of benefit costs.

FIGURE 7

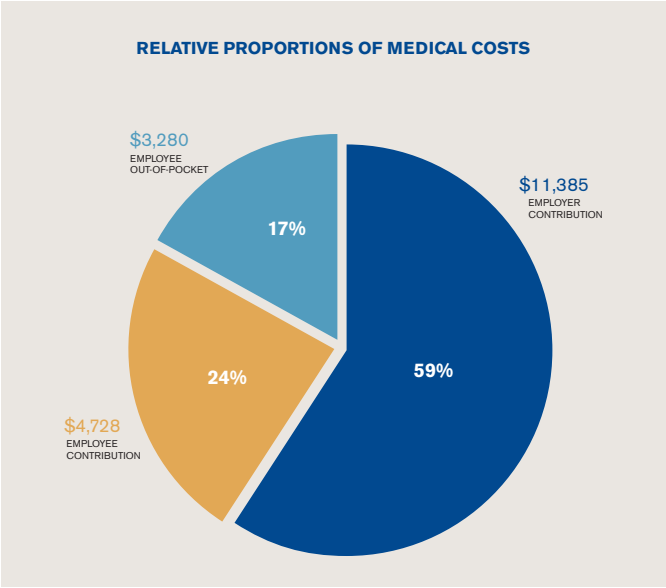
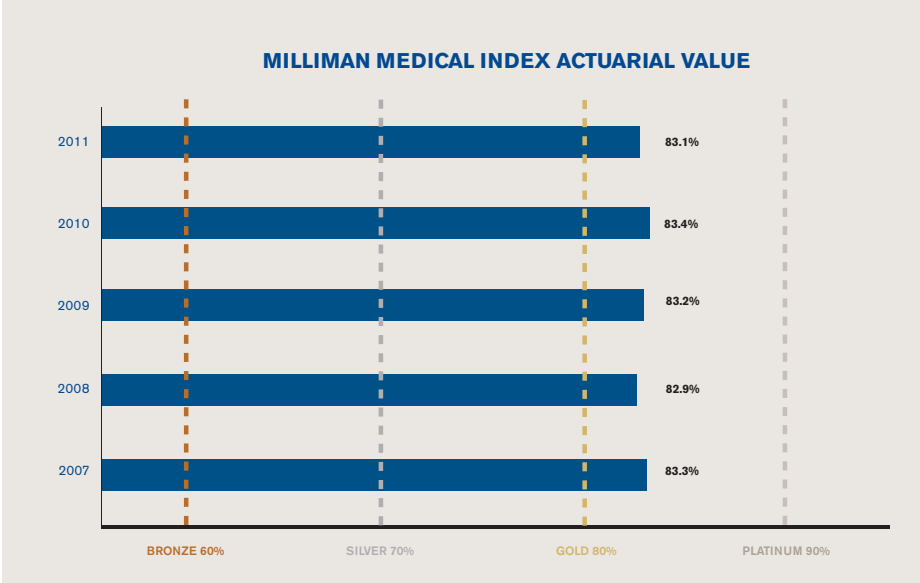


FIGURE 8



Figures 9 and 10 show historical growth in the three cost-sharing categories that we monitor each year. In 2011, employees shared more of the total MMI percentage cost increase than employers. The employer's share increased by $641 while the employee's share increased by $678, which includes $403 for employee contributions and $275 for out-of-pocket costs.

In absolute dollars, the total MMI has increased about $6,011 since 2006. Employers have absorbed $3,023 of this increase while employees have shared $2,988 of it.

FIGURE 9

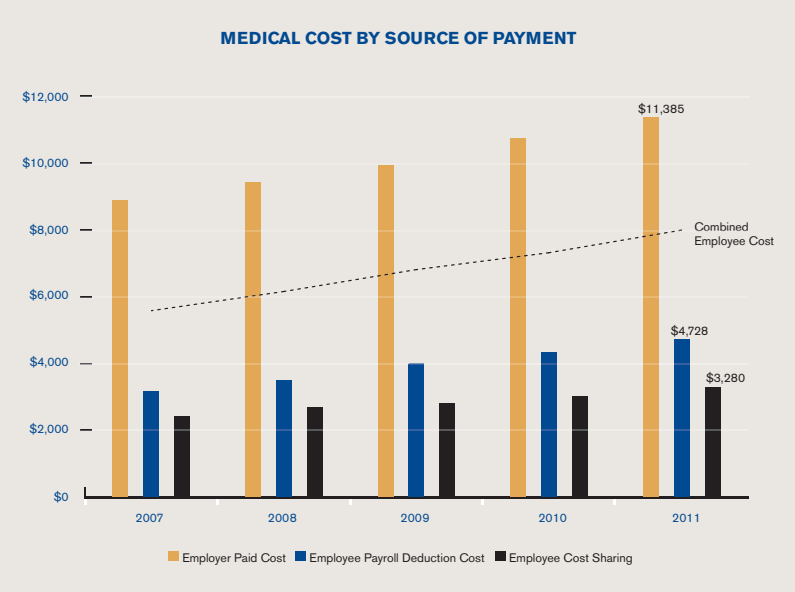


FIGURE 10

ANNUAL INCREASE IN SPENDING SPLIT BY EMPLOYER AND EMPLOYEE PORTIONS

	2007/2006	2008/2007	2009/2008	2010/2009	2011/2010
TOTAL MEDICAL COST (EMPLOYER & EMPLOYEE)	8.4%	7.6%	7.4%	7.8%	7.3%
EMPLOYEE OUT-OF-POCKET COST SHARING	9.5%	10.5%	5.4%	6.6%	9.2%
EMPLOYEE PAYROLL DEDUCTION	12.8%	10.1%	14.7%	8.0%	9.3%
EMPLOYER PORTION	6.5%	6.0%	5.4%	8.0%	6.0%

THE ELEPHANT IN THE ROOM: HEALTHCARE REFORM

The number one most-talked-about subject in health insurance today is healthcare reform. The changes being imposed by reform are more sweeping than anything since the introduction of Medicare in 1966.[3] While the direct effect on health cost trends may be limited, certain upcoming changes will influence the cost trends measured by the MMI:

Changes in minimum coverage
Costs may be affected by the elimination of lifetime benefit limits and by the removal of any copays on preventive care if utilization changes as a result. Such a utilization increase is likely with plans that formerly had copays or coinsurance on preventive care.[4]

Rate scrutiny
Premium rate reviews do nothing to directly influence the underlying drivers of healthcare costs but can put pressure on insurers to find ways to keep medical costs down.[5] [6] These changes affect how rates vary between different groups but not the overall cost of healthcare. Cost reduction might focus on reducing administrative expenses, renegotiating provider payment rates, improving medical management, or other approaches.[7]

Individual mandate and expanded Medicaid coverage
Requiring everyone to have insurance should reduce the cost shifting that ensues when hospitals and physicians are forced to bill higher rates to insurers to offset the costs of uncompensated or undercompensated care.[8] However, expansions in Medicaid coverage (coupled with the influx of Medicare-eligible persons over the next decade) could renew cost-shifting challenges.[9]

Health insurance exchanges
Starting in 2014, individuals and small employer groups will be able to purchase insurance through exchanges.[10] The exchanges themselves may or may not have any direct impact on insurance costs. However, some ways they might affect costs include:

Transparency. Purchasers will be able to compare premiums and benefit designs across plans more easily than ever before.

Commoditization. Carriers will have less ability to compete on benefit differences, because benefits will be standardized at the bronze, silver, gold, and platinum levels, at least to some degree.

Active purchasing. Some exchanges may assume an aggressive "active purchaser" role, soliciting bids for insurance and limiting the carriers that are invited to participate in the exchange.

Expanding innovations to the non-exchange market. Innovations in quality improvement and efficiency that originate in the exchange may influence practices outside the exchange.

For further perspective on how the Milliman Medical Index fits in the evolving healthcare system, visit our blog at:

http://www.healthcaretownhall.com/?tag=milliman-medical-index

3 For more information on healthcare reform, visit www.milliman.com/hcr.
4 Jhu, E. & Nowakowski, J. (March 2011). Benchmarking preventive care utilization. Milliman Healthcare Reform Briefing Paper. Retrieved May 3, 2011, from http://publications.milliman.com/publications/healthreform/pdfs/benchmarking-preventive-care-utilization.pdf.
5 Shreve, J. (February 2010). The difficulty of legislating premium rate increases. Milliman Health Reform Briefing Paper. Retrieved May 3, 2011, from http://publications.milliman.com/publications/healthreform/pdfs/difficulty-legislating-premium-rate.pdf.
6 Herrle, G. & Snook, T. (January 2011). Healthcare reform: Strategic considerations for 2011. Milliman Insight. Article retrieved May 3, 2011, from http://insight.milliman.com/article.php?cntid=7490&utm_source=search&utm_medium=web&utm_content=7490&utm_campaign=Search.
7 Harris, R., Rifkin, B., Snook, T. (March 2010). Healthcare costs: Manage the causes, not the effect. Milliman Health Reform Briefing paper. Retrieved May 3, 2011, from http://publications.milliman.com/publications/healthreform/pdfs/healthcare-cost-manage-causes.pdf.
8 Harris, R. & Snook, T. (October 2009). Adverse selection and the individual mandate. Milliman Health Reform Briefing Paper. Retrieved May 3, 2011 from http://publications.milliman.com/research/health-rr/pdfs/adverse-selection-individual-mandate.pdf.
9 Proebsting, D. (June 2010). Why hospital cost shifting is no longer a viable strategy. Milliman Healthcare Reform Briefing Paper. Retrieved May 3, 2011, from http://publications.milliman.com/publications/healthreform/pdfs/why-hospital-cost-shifting.pdf.
10 Healthcare Town Hall. Archive of state exchanges postings. Retrieved May 3, 2011, from http://www.healthcaretownhall.com/?tag=state-exchanges.

Other elements of reform may affect premium rates, but not necessarily healthcare costs. For example, the PPACA requires carriers to satisfy minimum medical loss ratio (MLR) requirements. MLRs (claims divided by premiums) must be at least 80% for individual and small group plans, and at least 85% for large group plans. To comply with the MLR requirement, insurers are taking steps to reduce administrative expenses. There is already evidence that carriers are reducing agent commissions in the individual and small group markets in order to help ensure compliance.[11] The effort to comply with the MLR requirements may produce a one-time decrease in premium trends but does not influence the healthcare cost trend.

Another example is the new underwriting and rating restrictions that will be imposed on individual and small employer group plans.[12] The changes will require that insurance be guaranteed issue (applicants cannot be turned down), and that it be offered at adjusted community rates that do not allow carriers to "rate up" premiums based on the health status or claim experience of applicants. Current underwriting and rating rules vary by state, so the effects of these changes will also vary by state.

Again, the MLR requirements and the changes in rating and underwriting practices will affect premium rates for some people, but they will not directly affect the overall cost of healthcare.

HOW WILL EMPLOYEE PREMIUM SHARE DIFFER IN THE EXCHANGE?

Starting in 2014, people earning less than 400% of the Federal Poverty Level (FPL) that buy their healthcare coverage through their state exchanges could reduce their premium share by receiving a federal subsidy. The law sets forth maximum premiums as a percent of total household income for people earning less than 400% of FPL. Employees that receive healthcare coverage through their employer are not eligible for the federal premium subsidy offered in the exchange unless they pay more than 9.5% of their total household income for healthcare or their employer offers a plan that, on average, pays out less than 60% of the total costs.

Because younger employees often are those with lower incomes, the subsidies can have further ramifications for an employer's risk pool and costs. If the younger employees migrate to the exchange, employers may find themselves with increasing "per employee" premiums, but lower overall costs given they will have fewer members. As such, employers may want to revisit their employee contribution strategies before 2014.

11 Proebsting, D. & Wanta, C. Milliman Group Health Insurance Survey illustrates cost-management strategies due to health reform. Milliman Healthcare Reform Briefing Paper. Retrieved May 3, 2011, from http://publications.milliman.com/publications/healthreform/pdfs/milliman-group-health-insurance.pdf.

12 Doran, P.A. (May 2010). Rating and underwriting under the new healthcare reform law. Milliman Healthcare Reform Briefing Paper. Retrieved May 3, 2011, from http://publications.milliman.com/publications/healthreform/pdfs/rating-underwriting-under-new.pdf.

TECHNICAL APPENDIX: MILLIMAN MEDICAL INDEX

The MMI is a byproduct of Milliman's ongoing research in healthcare costs. The MMI is derived from Milliman's flagship health cost research tool, the Health Cost Guidelines™, as well as a variety of other Milliman and industry data sources, including Milliman's MidMarket Survey and Milliman's Group Health Insurance Survey™.

The MMI represents the projected total cost of medical care for a hypothetical American family of four (two adults and two children) covered under an employer-sponsored PPO health benefit program and reflects the following:

- Nationwide average provider fee levels negotiated by insurance companies and preferred provider networks
- Average PPO benefit levels offered under employer-sponsored health benefit programs[13]
- Utilization levels representative of the average for the commercially insured (non-Medicare, non-Medicaid) U.S. population

Variation in costs

While the MMI measures cost for a typical family of four, any particular family or individual could have significantly different costs. Variables that affect costs include:

Age and gender. There is wide variation in costs by age, with older people generally having higher average costs than younger people. Variation also exists by gender.

Individual health status. Tremendous variation also results from health status differences. People with chronic conditions are likely to have much higher average healthcare costs than people without these conditions.

Geographic area. Significant variation exists among healthcare costs by geographic areas because of differences in healthcare provider practice patterns and average costs for the same services.

Provider variation. The cost of healthcare depends on the specific providers used. Costs also vary widely because of differences in both billed charge levels and discounts that payors negotiate.

Insurance coverage. The presence of insurance coverage and the amount of required out-of-pocket cost sharing also affects healthcare spending.

13 For example, for 2011, average benefits are assumed to have an in-network deductible of $582, various copays (e.g., $104 for emergency room visits, $24 for physician office visits, $11/18%/25% for generic/formulary brand/non-formulary brand drugs), coinsurance of 16% for non-copay services, etc.

ABOUT THE MILLIMAN MEDICAL INDEX

The MMI includes the cost of services paid under an employer health benefit program as well as costs borne by employees in the form of deductibles, coinsurance, and copayments. The MMI represents the total cost of payments to healthcare providers, the most significant component of health insurance program costs, and excludes the non-medical administrative component of health plan premiums. The MMI includes detail by provider type (e.g., hospitals, physicians, and pharmacies), for utilization, negotiated charges, and per capita costs, as well as how much of these costs is absorbed by employees in the form of cost sharing.

The 2011 report marks the seventh year of the MMI. The MMI incorporates proprietary Milliman studies to determine representative provider reimbursement levels by years, as well as other reliable sources, including the Kaiser Family Foundation/Health Research and Educational Trust 2010 Annual Employer Health Benefit Survey (Kaiser/HRET) to assess changes in health plan benefit level by year.

Launched more than 50 years ago, the Milliman Health Cost Guidelines is an industry standard, now used by more than 100 leading insurers to estimate expected health insurance claim costs. The seven-volume publication includes utilization rates for specific services and variations in costs in different parts of the country–critical data used by traditional health carriers and managed care organizations for product pricing. In addition, the Guidelines provides utilization benchmarks for managed care arrangements. The Guidelines is updated annually from core data sources, which contain the complete annual health services of more than 21 million lives as well as various specialized proprietary databases. Milliman invests more than $2 million annually in updating the Guidelines.

Milliman's Group Health Insurance Survey provides a unique perspective by surveying rate levels and experience for a uniform population and benefit design for HMOs, PPOs, and consumer-driven health plans from across the nation. Survey results are provided by metropolitan statistical area, state, region, and nationwide. The survey is used by managed care organizations nationwide to compare their rate levels and experience with those of their competitors, and includes utilization rates, costs of care for physician and hospital services, and various rate levels.

The Milliman Medical Index is authored by Lorraine Mayne, FSA, MAAA, Chris Girod, FSA, MAAA, and Scott Weltz, FSA, MAAA. For more information, contact Lorraine at 801.924.1390 or at lorraine.mayne@milliman.com.

Milliman is among the world's largest independent actuarial and consulting firms. Founded in 1947 as Milliman & Robertson, the company currently has 54 offices in key locations worldwide. Milliman employs more than 2,500 people. The firm has consulting practices in healthcare, employee benefits, property & casualty insurance, life insurance and financial services. Milliman serves the full spectrum of business, financial, government, union, education and nonprofit organizations.

milliman.com