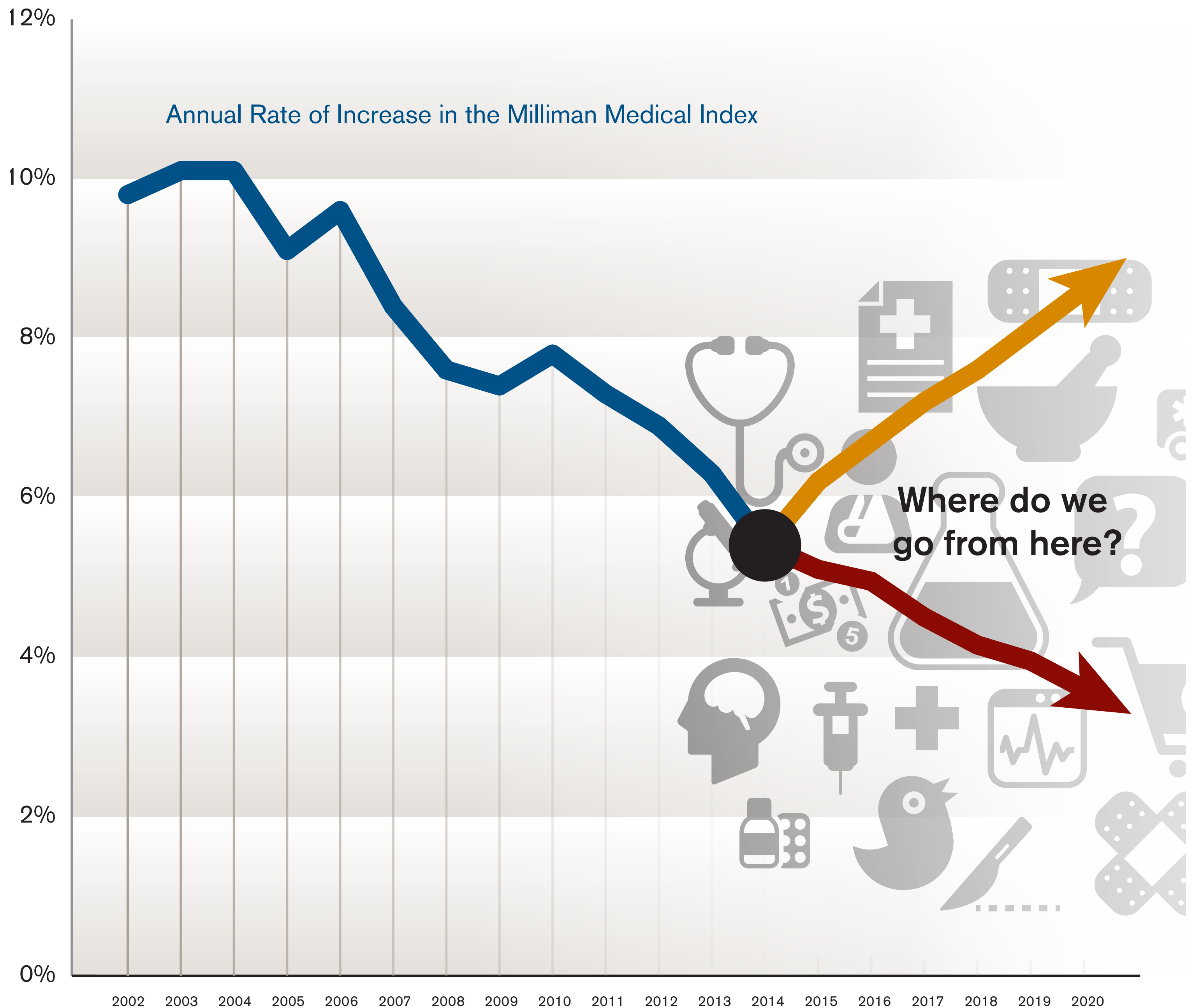
Milliman

2014 Milliman Medical Index



Executive summary 1

Components of cost 3

Employees' share
of healthcare costs 5

Drivers of
annual cost increase 7

Technical appendix 9

EXECUTIVE SUMMARY

$23,215. That's how much is spent in 2014 on healthcare for a typical American family of four covered by an average employer-sponsored health plan according to the 2014 Milliman Medical Index (MMI).[1] And yet while the amount has more than doubled over the past 10 years, growing from $11,192 to $23,215, the 5.4% growth rate from 2013 to 2014 is the lowest annual change since the MMI was first calculated in 2002.

Employers pay the largest portion of healthcare costs, contributing $13,520 per year, or 58% of the total. However, increasing proportions of costs have been shifted to employees. Since 2007, when the economic recession began, the average cost to employers has increased 52%–an average of 6% per year–while the expenses borne by the family, through payroll deductions and out-of-pocket costs, have grown at an even faster rate, 73% (average of 8% per year).

Throughout this report we review the various components of the cost increases, how they are shared between employers and employees, and what key drivers are most likely to affect healthcare costs in 2014 and beyond.

Key findings

As measured by the 2014 MMI, the total annual cost of healthcare for a typical family of four covered by an employer-sponsored preferred provider plan (PPO) is $23,215 (see Figure 1). Key observations are:

- The MMI has more than doubled over the past 10 years (107% increase from 2004 to 2014), growing from $11,192 in 2004 to $23,215 in 2014.
- Although healthcare costs continue to rise, the overall annual rate of increase in the cost of care for the family of four is at its lowest level since we first calculated the MMI in 2002. During those years, the annual increase in cost ranged from a high of 10.1%, in both 2003 and 2004, to a low of 5.4% in 2014. The rate of increase dropped by nearly a full percentage point, from 6.3% in 2013 to 5.4% in 2014. As discussed later in this report, this significant decline was likely due to a confluence of forces rather than any single event.
- In almost every year of the past 10, growth rates have decelerated. Figure 2 shows the most recent five years of that deceleration.

FIGURE 1

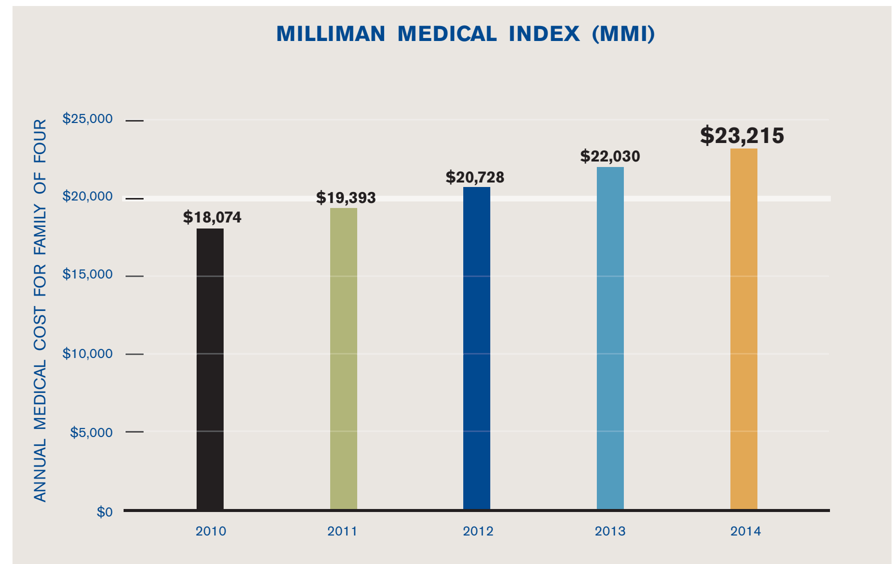
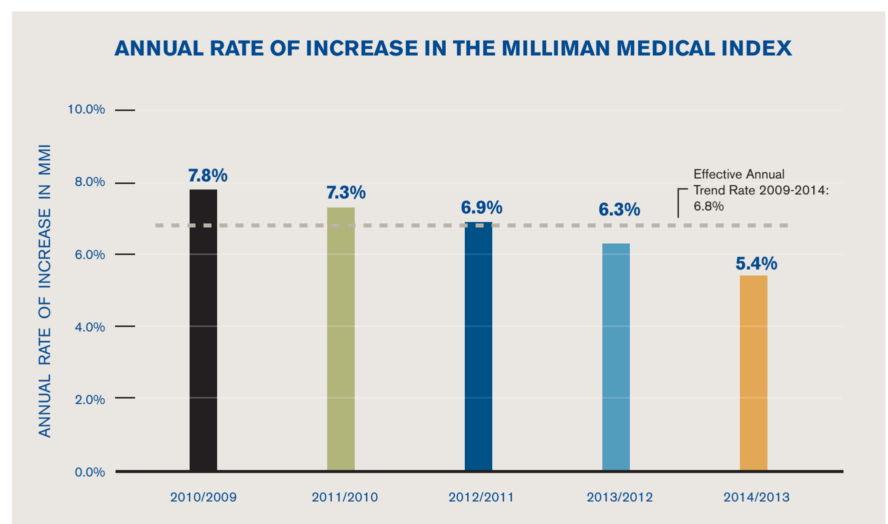


FIGURE 2



1 The Milliman Medical Index is an actuarial analysis of the projected total cost of healthcare for a hypothetical family of four covered by an employer-sponsored preferred provider organization (PPO) plan. Unlike many other healthcare cost reports, the MMI measures the total cost of healthcare benefits, not just the employer's share of the costs, and not just premiums. The MMI only includes healthcare costs. It does not include health plan administrative expenses or profit loads.

- In each of the past four years, employees have assumed an increasing percentage of the total cost of care. The total employee cost (payroll deductions plus out-of-pocket expenses) increased by approximately 32% from 2010 to 2014, while employer costs (premium contributions) increased by 26%.

Although the annual rate of increase is down, it is still well above the rate of growth in the consumer price index (CPI).

Although the annual rate of increase is down, it is still well above the rate of growth in the consumer price index (CPI).[2] However, when and how future annual rates of increase will continue to change is unclear, and may depend on a number of factors such as:

- The economy
- Supply and demand influences
- Healthcare provider engagement in cost control
- Specialty pharmacy
- Transparency

So far, the emerging reforms required by the Patient Protection and Affordable Care Act (ACA) have had little direct impact on the cost of care for our family of four.

So far, the emerging reforms required by the Patient Protection and Affordable Care Act (ACA) have had little direct impact on the cost of care for our family of four in 2014 because this family tends to be insured through large group health plans. Some of the most far-reaching reforms are focused on access to insurance in the individual and small employer markets. Additionally, while the reforms are having immediate impacts on premium rates in those markets (the individual market, in particular), it is unclear whether they will ultimately have meaningful effects on growth in the cost of healthcare services.

2 Over the 10-year period from 2004 through 2014, CPI has increased by approximately 2.3% per year, while the MMI has average annual increases of 7.6%.

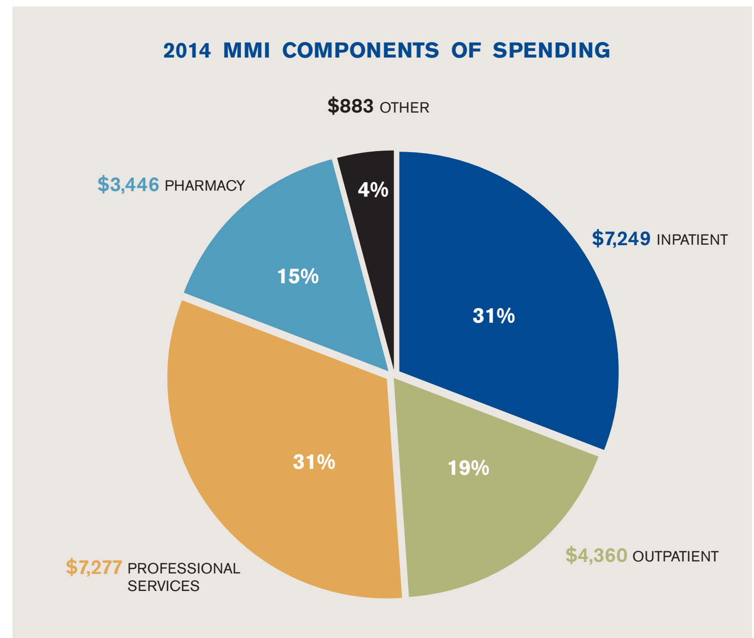
COMPONENTS OF COST

The MMI examines the cost of healthcare under five separate categories of services:

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

As shown in Figure 3, for the MMI family of four, care provided by physician and other professional services accounts for 31% of the total spending. [3] Inpatient and outpatient facility care account for 31% and 19% of the total, respectively, while pharmacy costs represent 15% of the total cost of healthcare for our family of four. The "Other" category of healthcare spending is the 4% of care that doesn't fall into one of the other four categories. It includes such things as durable medical equipment, miscellaneous supplies, ambulance, and home health.

FIGURE 3



At $7,249 in 2014 (see Figure 4 on page 4), inpatient facility costs grew by 5.7% (see Figure 5 on page 4), a rate similar to the 5.4% total growth rate for all services combined. Notably, inpatient hospital utilization rates, as measured by total days in the hospital, increased slightly. Over the previous five years, annual increases in inpatient utilization have averaged just below zero, meaning that utilization decreased slightly during that time. The utilization uptick may be one sign of a recovering economy, as people opt for procedures that they postponed during times of greater economic uncertainty. It may also be due, in part, to the "wearing off" of one-time utilization reductions resulting from implementation of hospital performance incentives, such as the readmission penalty program that the ACA established for Medicare patients. Although the MMI measures employer health plan costs, not Medicare costs, there are spillover effects from the high-volume Medicare patient population that affect how commercial and other patients are treated as well.

In recent years, increases in outpatient facility costs have also moderated. In 2014, outpatient facility costs increased 8.0%, down from an average of 9.9% over the previous five years. Much of the decline in outpatient facility cost growth has been attributable to slower growth in average costs per service. In the past it was common for health plans to contract with hospitals such that they would be paid a percentage discount from billed charges (e.g., a 30% discount from the hospital's normal billed charges). In its simplest form, that method does not control the growth rate in average costs per service, because hospitals have some discretion in how much they increase their billed charge amounts. Increasingly, however, health plans are contracting using methods that more effectively control unit costs. Such methods include paying fixed case rates for services such as emergency room services or MRIs, or defining rates according to some benchmark that tends to grow more slowly, such as Medicare allowable fee levels.

3 As it has in prior MMIs, the professional services category includes doctors, physician assistants, nurse practitioners, chiropractors, hearing and speech therapists, physical therapists, and other clinicians.

FIGURE 4

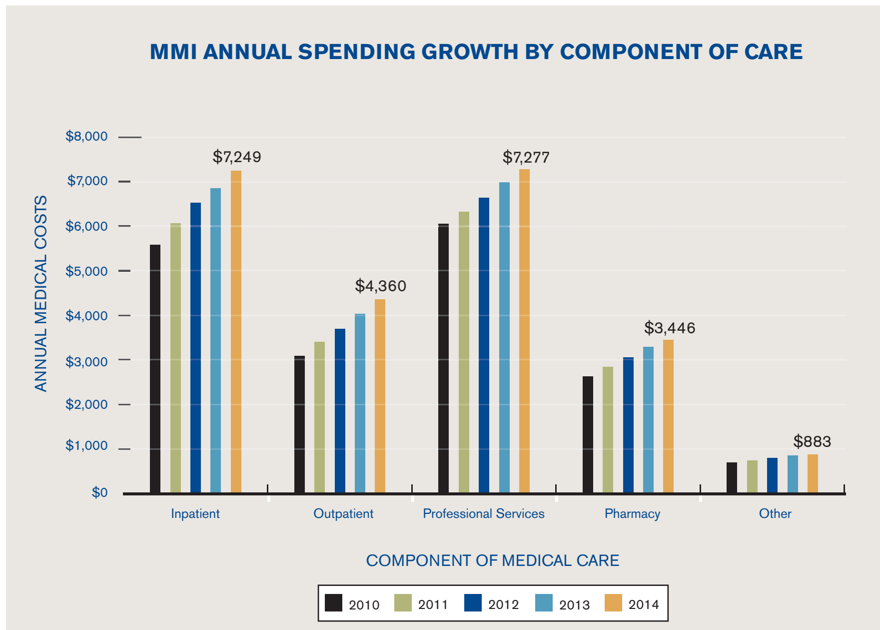
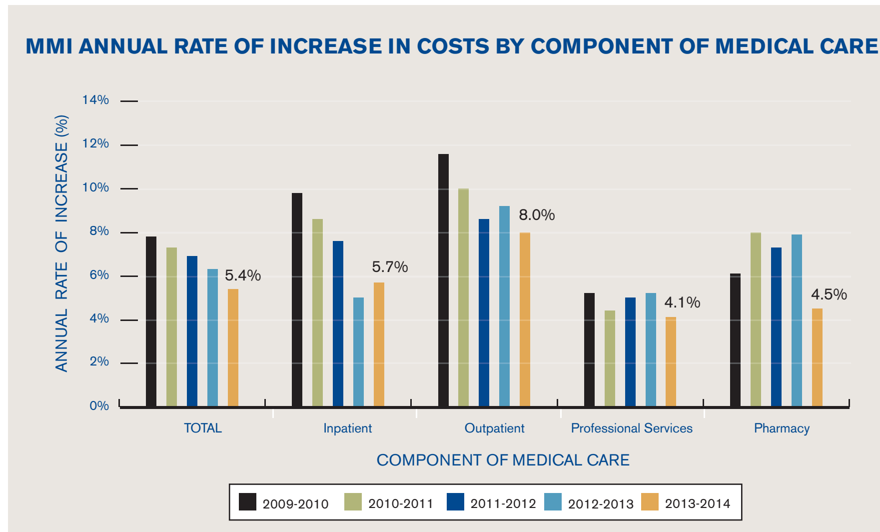


FIGURE 5



The 2014 increase in physician costs and other professional services was 4.1%. This is somewhat lower than the 5.2% average over the previous five years. In most years, including 2014, approximately 1% of the increase has been due to utilization increases (more services delivered, per person). The rest of the 4.1% is due to increases in average cost per service. Part of the average cost per service increase is a result of changes in the mix of services. For example, when local practice patterns change and expensive procedures, such as colonoscopies, are shifted from outpatient hospital departments into physician offices, it tends to affect the average cost per service in both treatment settings.

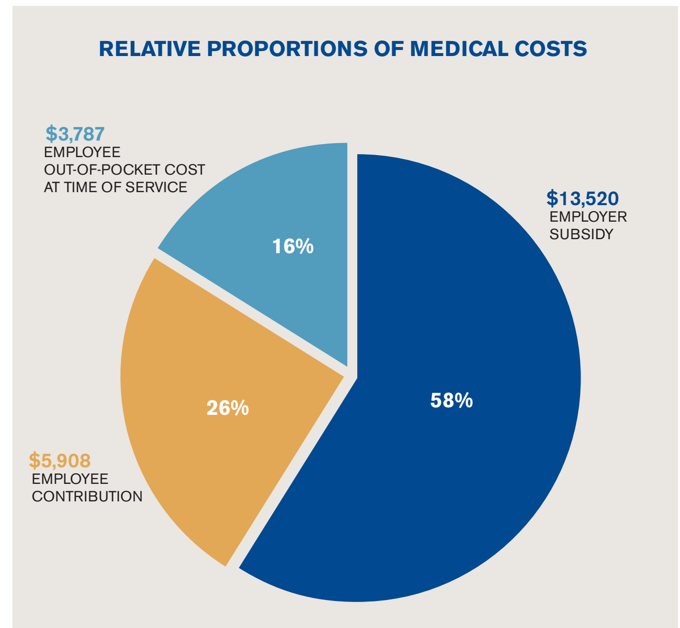
Pharmacy costs for the MMI family of four increased 4.5% over 2013. The shift of utilization from brand-name drugs to generics continues, but at a slower pace than in past years. Recently there have been fewer new brand-name drugs, and the patents have expired on several existing brand-name drugs, resulting in more prescriptions moving to generic. Pharmacy benefits also have somewhat limited protection from annual price increases, like hospital charges as discussed earlier in this report section. The price that a health plan is willing to pay for a prescription drug is often contractually defined as a discount from average wholesale price (AWP), particularly for brand-name drugs, but those AWP amounts are outside the control of insurance companies.

EMPLOYEES' SHARE OF HEALTHCARE COSTS

The total cost of healthcare for the MMI family of four is shared by employers and employees. To clearly define each payment source, we use three main categories:

- **Employer subsidy.** Employers that sponsor health plans subsidize the cost of healthcare for their employees by allocating compensation dollars to pay a large share of the cost. The portion paid by the employer typically varies according to the benefit plan option that the employee selects.
- **Employee contribution.** Employees who choose to participate in the employer's health benefit plan typically also pay a substantial portion of costs, usually through payroll deductions.
- **Employee out-of-pocket cost at time of service.** When employees receive care they also often pay for a portion of these services via health plan deductibles and/or point-of-service copays. While these payments are capped by out-of-pocket maximums as legislated by the ACA,[4] these costs are still material to the employee.

FIGURE 6



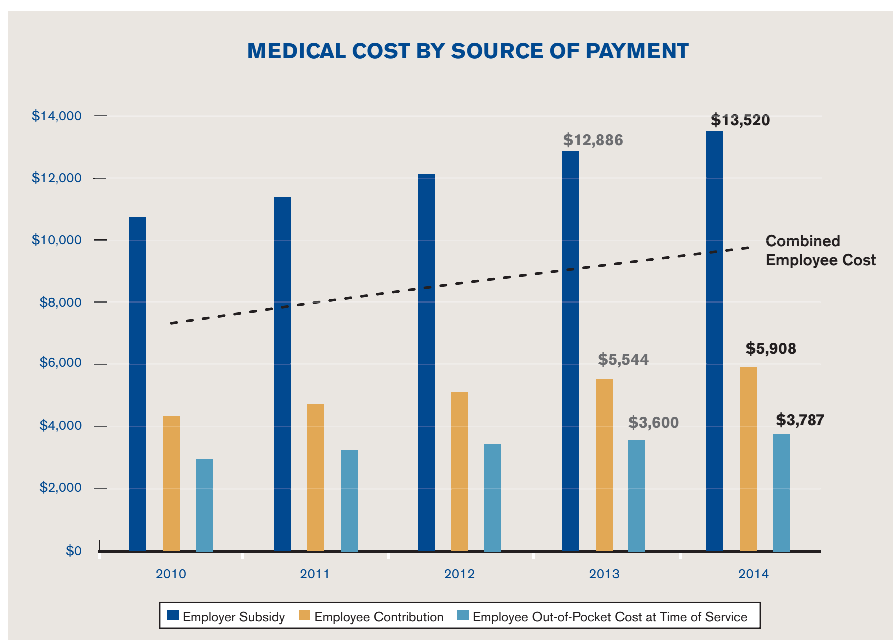
The MMI is unique in that it measures only healthcare costs rather than insurance premiums, which would include loads for a health plan's administrative expenses, taxes, and profit. Premiums exclude out-of-pocket costs at time of service that are borne entirely by employees. To form a complete picture, the MMI includes these out-of-pocket costs as a component of the total healthcare spending.

Figure 6 shows the relative proportions of the three categories we track annually. Employers continue to subsidize their employees' healthcare costs by paying an average of 58% of the total cost of healthcare in 2014. Of the $23,215 medical cost for a typical family of four, the employer pays about $13,520 while the employee pays the remaining $9,695, which is a combination of $5,908 in employee payroll deductions and $3,787 in out-of-pocket costs when they utilize medical services.

Employee costs (combined employee contributions and out-of-pocket costs) increased by 6.0% in 2014. This year's increase is less than in prior years (6.5% in 2013 and 7.2% in 2012). This good news for employees is offset by the fact that employees continue to bear more of the overall healthcare spending, according to the MMI–rising from 40.6% in 2010 to 41.8% in 2014.

Figures 7 and 8 illustrate how cost sharing has evolved over time. Employers adjust benefits each year in line with their healthcare budget constraints. In 2014, employers assumed $633 of the total increase in the cost of care for the family of four. Employees saw a dollar increase of $552 ($365 from increased payroll deductions and $187 from more out-of-pocket expenses). The employees' 6.0% increase is comprised of a 5.2% increase in employee out-of-pocket costs and 6.6% increase in payroll deductions. In other words, while both employer and employee costs increased, the employee experienced a larger percentage increase.

FIGURE 7



4 Out-of-pocket maximums for 2014 must not exceed $6,350 per person and $12,700 per family.

FIGURE 8

ANNUAL INCREASE IN SPENDING SPLIT BY EMPLOYER AND EMPLOYEE PORTIONS

	2010/09	2011/10	2012/11	2013/12	2014/13
TOTAL MEDICAL COST (EMPLOYER & EMPLOYEE)	7.8%	7.3%	6.9%	6.3%	5.4%
EMPLOYEE OUT-OF-POCKET COST AT TIME OF SERVICE	6.6%	9.2%	5.8%	3.7%	5.2%
EMPLOYEE CONTRIBUTION	8.0%	9.3%	8.2%	8.4%	6.6%
EMPLOYER SUBSIDY	8.0%	6.0%	6.7%	6.1%	4.9%

The ACA introduced the concept of "metallic levels" for benefit plans starting in 2014. Individual and small group policies provided on the state exchanges must have a metallic level of "bronze" or higher; bronze implies that, on average, the plan will pay 60% of the costs for the essential health benefits (EHBs) that must be provided by the benefit plan. To help avoid penalties, larger employers must provide plans that, on average, pay at least 60% of the cost of covered services, a threshold deemed "minimum value." The MMI plan has an actuarial value of approximately 83.7%.

In addition to a typical PPO plan, many employers offer their employees other plan options. A common alternative to a PPO is a "consumer-driven option" that includes higher out-of-pocket cost sharing. In return, many employers contribute to a health savings account (HSA) or a health reimbursement arrangement (HRA) and otherwise incentivize employees to participate in these plans as part of a larger effort to promote greater cost awareness by patients. For more on consumer-driven health plans, see the sidebar below.

Consumer-driven health plans and the MMI

The annual Milliman Medical Index measures the total cost of healthcare for a typical family of four covered by a preferred provider plan. Because 72% of firms offer some form of consumer-driven health plan (CDHP)—with 22% of employers planning to implement a total replacement CDHP in 2013**—many people ask how the MMI would change for a family of four covered by one of these plans instead of a PPO. Here we begin to answer some of those questions.

COMPARING HEALTHCARE COSTS UNDER PPO VS. CDHP COVERAGE

	PPO	CDHP
EMPLOYEE OUT-OF-POCKET	$3,787	↑
EMPLOYEE CONTRIBUTION	$5,908	↓
EMPLOYER SUBSIDY	$13,520	DEPENDS
EMPLOYER CONTRIBUTION TO CDHP ACCOUNT	NA	↑
TOTAL COST OF CARE (MMI)	**$23,215**	↓

Employee out-of-pocket. Employees typically pay more at the point of service with CDHPs because deductibles and other cost-sharing features are often higher versus the MMI PPO plan.

Employee contribution. Payroll deductions are often lower for CDHP plans. In some instances, employers set a fixed defined contribution that is the same for all plans offered. Since CDHP premiums are lower cost than other plans, this results in a lower payroll deduction.

Employer contribution to CDHP account. The accounts paired with CDHPs offer a way to save for future expenses that the typical PPO does not. Keep in mind that, on average, employees will use a good portion of the contribution made by their employers on plan cost sharing for deductibles and coinsurance. However, employees that use few healthcare services and/or regularly invest in these accounts can accumulate meaningful amounts to be spent on future healthcare expenses on a pre-tax basis.

Total cost of care. CDHPs tend to have higher deductibles than other plans, which encourages lower utilization of services, and therefore yields lower total healthcare costs.

Milliman will publish additional research on typical costs for a family of four covered by a CDHP later this year.

** National Business Group on Health (August 28, 2013). Large U.S. Employers Project a 7% Increase in Health Care Benefit Costs in 2014, National Business Group on Health Finds. Accessed May 15, 2014, at http://www.businessgrouphealth.org/pressroom/pressRelease.cfm?ID=214

DRIVERS OF ANNUAL COST INCREASE

While costs increased at a slower rate in 2014, it is a difficult challenge to isolate the exact drivers of the phenomenon, given the number of changes going on in healthcare.

The economy

The slow economy has influenced healthcare spending in recent years. For our family of four, annual cost increases have been held at bay due to less income being available for discretionary healthcare spending and reduced provider investment. History tells us that an improvement in the U.S. economic environment will give an upward push to annual healthcare cost increases. However, experts disagree on the strength of the current economic recovery and when it will begin to exert upward pressure on healthcare costs. This year's MMI assumes that the recovery will have limited effect on healthcare costs in 2014, with the cost pressure lagging behind economic improvement. Additionally, some recent one-time impacts are likely to persist even after the economy recovers, such as large employers' actions to reduce costs through higher cost sharing and reduced spousal and family coverage.

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Supply/demand influences

While the ACA may not have a significant direct impact on the employer group market measured by the MMI, changes to other markets are likely to have ripple effects. The expansion of coverage through Medicaid and the exchanges could increase demand for healthcare services. Some of that demand will be short-term, due to pent-up demand for services, but more critically, the long-term demand will probably be higher as a greater percentage of the U.S. population has health insurance coverage. This greater demand for services will put pressure on supply, possibly leading to higher provider reimbursement rates and costs. A systemic increase in utilization could crowd out our typical family of four from receiving certain services, thereby impacting their utilization. We may also see cost shifting to the employer group market because the reimbursement rates tend to be lower in the markets that are expanding; on the other hand, insurers' negotiations with providers for the exchange market may push down the rates across all lines of business. Finally, some providers may be willing to accept lower rates than in the past, perhaps due to a reduction in uncompensated care for the uninsured. The interactions are complex, and the impacts are likely to vary by geographic area.

Healthcare provider engagement in cost control

Increased provider engagement in cost control has helped keep annual cost increases down in recent years. In some cases there may have been one-time cost decreases, such as the reduction in hospital readmissions that is due to changes to Medicare reimbursement policies; other payment reforms may have implications in 2015 and beyond. Provider organizations are becoming more accustomed to risk-taking and looking for efficiencies through clinical integration, thereby influencing costs throughout the system.

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While many of the payment reform programs, such as accountable care organizations (ACOs) and bundled payment models, have been introduced in the Medicare program (and to a lesser extent in Medicaid), they have spillover effects for all payors. Use of these models is expected to expand in future years, and may continue to influence future annual cost increases as the more effective models become permanent parts of the healthcare delivery and financing systems.

Specialty pharmacy

Specialty drug utilization rates are increasing. Specialty drugs are currently used by a small percentage of people to treat such conditions as hepatitis C, multiple sclerosis, cystic fibrosis, and cancer, but their costs are extremely high. Medicare defines a specialty drug as one that costs more than $600 per month, but many specialty drugs cost much more.

Increased transparency of pricing and expected out-of-pocket costs will ensure that patient costs are a part of the purchasing decision, which has not historically been true in healthcare when people are covered by relatively rich benefit plans.

Transparency

Costs may be pressured downward as healthcare delivery and purchasing becomes more transparent. Key examples of this include:

Consumerism. The consumerism movement is about engaging consumers to maximize value in their healthcare purchases. Value may be defined in terms of cost, quality, choice, or other metrics. Increased transparency of pricing and expected out-of-pocket costs will ensure that patient costs are a part of the purchasing decision, which has not historically been true in healthcare when people are covered by relatively rich benefit plans. With the excise "Cadillac" tax coming online in 2018, some employer plans that have traditionally been very rich have begun to shift toward leaner plans—resulting in a more meaningful opportunity to participate in the consumerism movement.

Premium rate filing transparency. Individual and small group premium rates—and in some states, large group rates—must be submitted to insurance regulators for review and approval. Those rate filings are increasingly publicly available and the requested rate increases, particularly for large carriers, often end up in the newspaper. The heightened public scrutiny may accentuate existing efforts to keep premium rate increases low. While premium rates include loads for carrier administrative expenses and profit, which are not included in the MMI, most of a premium (usually 80% to 90%, or more) pays for healthcare expenses.

Product homogenization. The ACA has made plan comparability a high priority in the individual and small group markets through introduction of metallic-level benefit richness requirements, and it has simplified comparison shopping in all markets by prohibiting dollar-based benefit limits, setting limits on out-of-pocket maximums, introducing minimum value standards, and imposing other requirements that affect all commercial health insurance plans.

The act of being able to sort available plans by price will ensure that consumers can act in their own economic self-interest while also motivating health insurance companies to offer affordable plans.

Exchanges. Health insurance exchanges facilitate transparency and comparison of products. The act of being able to sort available plans by price will ensure that consumers can act in their own economic self-interest while also motivating health insurance companies to offer affordable plans. Over time, we expect this to affect large group plans as well. For more information, see the sidebar on private exchanges below.

How we balance our competing desires to have the best care, freedom of choice, cost control, and appropriate rewards for innovation, investment, and positive patient outcomes will steer future healthcare cost trends up or down. Creative solutions will be needed. The ACA may have planted some seeds that will ultimately bear fruit through increased transparency, experimentation with provider risk taking, and focus on outcomes such as through the new Patient Centered Outcomes Research Institute. As these efforts mature, we may begin to see what effects they will have on healthcare costs. And we will see whether additional (and possibly paradigm-changing) innovations will still be needed.

Private exchange movement and the MMI

What is a private exchange?
A private exchange is a virtual marketplace, similar to the individual and small group health insurance exchanges established by the ACA. However, the private exchanges are developed by employer coalitions, employee benefits consulting firms, or other entities, and are primarily intended to serve large employer groups.

Why are employers interested in private exchanges?
Private exchanges can provide flexible one-stop shopping solutions for employers and employees to purchase a variety of benefits, including health insurance, life insurance, and other ancillary insurance products. Multiple carriers may participate in the exchanges, providing variety of choice and facilitating price competition through transparency and through competitive bidding by carriers for the opportunity to sell in the exchange. The exchanges also help employers implement defined contribution approaches where they contribute a fixed amount per employee. Employees can then choose from any benefit plan offered in the exchange and contribute their share of the health insurance premium with pre-tax dollars.

How will private exchanges impact health care costs and trends?
Whether the private exchange movement will have any material effect on the overall cost of care tracked by the MMI is uncertain. Time will tell if the improved transparency and ease of comparison among products and prices will help to control healthcare costs. For more information on private exchanges, reference our library of private exchange publications.*

* www.healthcaretownhall.com/?p=7466

TECHNICAL APPENDIX

The Milliman Medical Index (MMI) is made possible through 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.

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. The MMI 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[5]
- Utilization levels representative of the average for people covered by large employer group health benefit plans in the United States

Variation in costs

While the MMI measures costs for a typical family of four, any particular family or individual could have significantly different costs. Variables that impact 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. Our MMI-illustrated family of four consists of a male age 47, a female age 37, a child age four, and a child under age one. This mix allows for demonstration of the range of services typically utilized by adult men, women, and children. Average utilization and costs of specific services will be different for other demographic groups.

Individual health status. Tremendous variation also results from health status differences. People with severe or 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 area because of differences in healthcare provider practice patterns and average costs for the same services. For example, the relative cost of living affects healthcare costs, as labor costs (e.g., nurses and technicians) tend to be higher in areas where the cost of living is higher. Access to advanced technology also affects the utilization of services by geographic area.

Provider variation. The cost of healthcare depends on the specific providers used. Even in the same city, costs for the same service can vary dramatically from one provider to another. The cost variation results from differences in billed charge levels, discounted payment rates that payors have negotiated, and implementation of payment methodologies that may influence utilization rates, such as capitation or case rates.

Insurance coverage. The presence of insurance coverage and the amount of required out-of-pocket cost sharing also affects healthcare spending. With all other variables being equal, richer benefit plans usually have higher utilization rates and costs than leaner plans.

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

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

5 For example, for 2014 average benefits are assumed to have an in-network deductible of $725, various copays (e.g., $131 for emergency room visits, $29 for physician office visits, $11/18%/28% for generic/formulary brand/non-formulary brand drugs), and coinsurance of 18% for non-copay services, etc.

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