2015 Milliman Medical Index
Will the typical American family of four be driving a “Cadillac plan” by 2018?
Cover: The actuarial value of the MMI plan is 83.5%, making it approximately a "gold" plan in ACA terms. See p. 9 for more information.
EXECUTIVE SUMMARY

In 2015, the cost of healthcare for a typical American family of four covered by an average employer-sponsored preferred provider organization (PPO) plan is $24,671 (see Figure 1) according to the Milliman Medical Index (MMI). The amount will almost certainly surpass $25,000 in 2016.

Key findings of the 2015 MMI include:

- **Growth rate up in 2015 due to prescription drug prices.** Last year’s 5.4% growth rate was the lowest in the history of the MMI and stands out compared with 10 years ago when the three-year-average annual growth rate was approximately 10%. This year, the growth rate has again climbed, increasing to 6.3% in 2015 (see Figure 2), largely due to increases in prescription drug costs. Even at last year’s low-water mark of 5.4%, the annual rate of increase is still well above growth in the consumer price index (CPI) for medical services.

- **Costs for our typical family have more than doubled over the past decade.** The cost for this family has nearly tripled since Milliman began tracking this information in 2001.

- **Cadillac tax approaching?** Perhaps. A family of four with the MMI plan is likely to reach the Cadillac tax much sooner if the plan is provided by a smaller employer and if trends exceed recent levels (see p. 9).

- **Pharmaceutical costs spike in 2015.** Prescription drug costs spiked significantly, growing by 13.6% from 2014 to 2015 (see Figure 3 on p. 2). Growth over the previous five years averaged 6.8%. The 2015 spike resulted from the introduction of new specialty drugs as well as price increases in both brand and generic name drugs, increases in use of compound medicines, and other causes. Since the MMI’s inception in 2001, prescription drugs have increased by 9.4% on average, exceeding the 7.7% average trend for all other services. Prescription drug costs now comprise 15.9% of total healthcare spending for our family of four, up from 13.2% in 2001. In a special section of this report (see p. 7), we examine prescription drug trends in greater detail.

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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.

2 Over the 10-year period ending March 2015, medical CPI has increased by approximately 3.3% per year, while the MMI has increased by 7.3% per year.
Employees continue to shoulder an increasing percentage of healthcare expenses. The total employee cost (payroll deductions plus out-of-pocket expenses) increased by approximately 43% from 2010 to 2015, while employer costs increased by 32%. Of the $24,671 in total healthcare costs for this typical family, $10,473 is paid by the family, $6,408 through payroll deductions, and $4,065 in out-of-pocket expenses incurred at point of care.

Looking forward, when and how future annual rates of increase will continue to change is unclear and may depend on a number of factors. One factor is the Patient Protection and Affordable Care Act (ACA) as it has both direct and indirect influences on the costs for our family of four. This year’s MMI takes a deeper dive into how some of these factors may drive future healthcare trends.

Since the MMI’s inception in 2001, prescription drugs have increased by 9.4% on average, exceeding the 7.7% average trend for all other services.
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 4, for the MMI family of four, care provided by physician and other professional services accounts for 31% of the total spending. Inpatient and outpatient facility care account for 31% and 19% of the total, respectively, while pharmacy costs represent 16% of the total cost. The remaining 4%, which is the “Other” category, includes care that doesn’t fall into one of the other four categories—durable medical equipment, miscellaneous supplies, ambulance, and home health.

Prescription drug expenses leapt up dramatically in 2015, by 13.6%. Nearly all of the change was due to an increase in the average cost per prescription (13.0%), with the remainder a result of utilization increases. The causes are discussed more in depth in a special section of this report (see p. 7). The timing of those causes may have varied from one population to another, with some starting to see the spike in 2014, while others are bearing the brunt of it in 2015.

At $7,642 in 2015 (see Figure 5), inpatient facility costs grew by 5.4% (see Figure 6 on p. 4), a rate lower than the 6.3% total growth rate for all services combined. The inpatient facility cost increase is composed primarily of a 5.0% increase in costs per day, while the number of inpatient days increased by only 0.4%. Utilization trends have been low for many years, affected, at least in part, by the movement of more services from inpatient to outpatient. Over the past five years, annual increases in inpatient utilization have averaged only 0.1%. Recent upticks (1.0% in 2014 and 0.4% in 2015) may be due to the recovering economy.

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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.
Increases in costs per inpatient day have averaged approximately 6.3% over the past five years, although the trend has moderated downward. Increases over the past two years were 4.7% in 2014 and 5.0% in 2015. Part of that slowdown may be due to slow growth in hospital wages and/or health plans’ continuing improvements in their contracts with hospitals. Those contracts often use fixed payments per day or per case, although the contracted rates may vary by type of patient (e.g., case rates might pay the hospital more for a heart procedure than for a routine childbirth). Contracts may also have provisions that limit annual increases in billed charge levels because many contracts still pay some services at billed charge levels or at some fixed discount from billed charges.

Increases in outpatient facility expenses have moderated significantly—7.5% over the past two years (8.0% in 2014 and 7.0% in 2015). In contrast, the average increase over the previous five years was 9.9%. The recent slowdown is likely due to a combination of influences, including the insurance company contracting improvements discussed above. Outpatient facility utilization is also affected when care is shifted from inpatient to outpatient facility or from outpatient facility to physician offices. When practice patterns change and care is shifted to new settings, we see one-time changes in utilization rates and costs within the categories of care. The slowdown in outpatient facility trends may be partly due to a slowdown in new shifts among treatment settings.

Physician cost increases are at historical lows. The 2015 cost increase was only 3.6%, which is the lowest since we first began tracking the MMI in 2001. In most years, the cost growth results primarily from increases in average payments per service, and a small portion results from increases in the number of services delivered per insured person. This year’s MMI was no different, with the 3.6% increase composed of 3.2% for price increases and 0.4% for utilization increases.

### FIGURE 6

**Physician cost increases are at historical lows. The 2015 cost increase was only 3.6%, which is the lowest since we first began tracking the MMI in 2001.**
EMPLOYEES’ SHARE OF HEALTHCARE COSTS

The total cost of healthcare for our 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 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 copays. While these payments are capped by out-of-pocket maximums as legislated by the ACA, these costs are still material to the employee.

Figure 7 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 2015. Of the $24,671 cost for a typical family of four, the employer pays about $14,198 while the employee pays the remaining $10,473, which is a combination of $6,408 in employee payroll deductions and $4,065 in out-of-pocket costs paid when they utilize medical services.

Employee costs (combined employee contributions and out-of-pocket costs) increased by 8.0% in 2015. This year’s increase is more than in prior years (6.0% in 2014 and 6.5% in 2013). This bad news continues a longer-term trend in which employees continue to bear more of the overall healthcare spending, according to the MMI—rising from 40.6% in 2010 to 42.5% in 2015.

Employee costs (combined employee contributions and out-of-pocket costs) increased by 8.0% in 2015. This year’s increase is more than in prior years (6.0% in 2014 and 6.5% in 2013). This bad news continues a longer-term trend in which employees continue to bear more of the overall healthcare spending.

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4 Out-of-pocket maximums for 2015 must not exceed $6,600 per person and $13,200 per family.
Figures 8 and 9 illustrate how cost sharing has evolved over time. Employers adjust benefits each year in line with their healthcare budget constraints. In 2015, employers assumed $678 of the total increase in the cost of care for the family of four. Employees saw a dollar increase of $778 ($500 from increased payroll deductions and $278 from more out-of-pocket expenses). The employees’ 8.0% increase is composed of a 7.3% increase in employee out-of-pocket costs and 8.5% increase in payroll deductions. In other words, while both employer and employee costs increased, the employee experienced a larger percentage increase.

**FIGURE 8**

**MEDICAL COST BY SOURCE OF PAYMENT**

While both employer and employee costs increased, the employee experienced a larger percentage increase.

**FIGURE 9**

**ANNUAL INCREASE IN SPENDING SPLIT BY EMPLOYER AND EMPLOYEE PORTIONS**

<table>
<thead>
<tr>
<th></th>
<th>2011/10</th>
<th>2012/11</th>
<th>2013/12</th>
<th>2014/13</th>
<th>2015/14</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EMPLOYER SUBSIDY</strong></td>
<td>6.0%</td>
<td>6.7%</td>
<td>6.1%</td>
<td>4.9%</td>
<td>5.0%</td>
</tr>
<tr>
<td><strong>EMPLOYEE PORTION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Contribution</td>
<td>9.3%</td>
<td>8.2%</td>
<td>8.4%</td>
<td>6.6%</td>
<td>8.5%</td>
</tr>
<tr>
<td>Employee Out-of-Pocket</td>
<td>9.2%</td>
<td>5.8%</td>
<td>3.7%</td>
<td>5.2%</td>
<td>7.3%</td>
</tr>
<tr>
<td>Employee Total</td>
<td>9.3%</td>
<td>7.2%</td>
<td>6.5%</td>
<td>6.0%</td>
<td>8.0%</td>
</tr>
<tr>
<td><strong>TOTAL MEDICAL COST</strong></td>
<td>7.3%</td>
<td>6.9%</td>
<td>6.3%</td>
<td>5.4%</td>
<td>6.3%</td>
</tr>
</tbody>
</table>

(EMPLOYER & EMPLOYEE)
PRESCRIPTION DRUG TRENDS

Until recently, prescription drugs have not materially altered the trajectory of the MMI. With drug costs being roughly 15.9% of the annual healthcare expense of our typical family of four, drug trends must be very different from other categories of care to materially influence overall healthcare cost trends. Nevertheless, they are doing just that. As discussed below, a combination of forces is creating the perfect pharmaceutical storm. Employers and families alike feel the financial consequences more than ever when a prescription is filled.

Specialty drugs

Specialty drug expenditures have grown over the past 25 years to the point where they now account for one of every three dollars spent on prescription drugs. While various definitions of specialty drugs are used in the industry, they nearly all have a common denominator: They are expensive. Medicare defines specialty drugs as those costing more than $600 per prescription. But the costs can be much higher than that. The category includes the well-publicized treatments for hepatitis C, some of which cost more than $1,000 per dose. Many subclasses of specialty drugs have huge potential to improve health outcomes, but also come at a significant cost. Experts project that the pipeline for specialty drugs is substantial and likely will not subside in the near future as manufacturers focus their efforts on targeted genetic profiles and rare disease states.

Compounded drugs

Compounded drugs have become one of the most costly components of pharmacy spending over the past several years. In fact, several recent national news stories have focused on this phenomenon. The FDA defines compounding as “a practice in which a licensed pharmacist, a licensed physician, or, in the case of an outsourcing facility, a person under the supervision of a licensed pharmacist, combines, mixes, or alters ingredients of a drug to create a medication tailored to the needs of an individual patient.” Many of these drugs (often custom creams and ointments) have questionable clinical value, and compounding pharmacies are receiving much higher prices for compounds than the individual ingredients they comprise. As a result, drug trends have accelerated for compounded drugs, which is due in part to more limited regulation for them than for other drugs, along with increases in the average wholesale price (AWP) of these drugs. Pharmacy benefit managers (PBMs) have responded with specialized programs targeting the inappropriate use of this drug class.

“Patent cliff” aftermath

Over the past few years, many brand name drugs have lost patent protection, including some of the highest-grossing drugs in history such as Lipitor, Plavix, and Nexium. This “patent cliff” benefited consumers because generic versions became available at much lower costs. Now that many of the heavily utilized brand drugs have lost patent protection, the year-over-year price reductions produced by generic shifts have slowed as well. In addition, there is also evidence generic price trends are on the rise, where in past years they have been flat or even negative. Manufacturer consolidation and reduced competition, particularly among generic manufacturers, may be a contributor to the increase in cost.

AWP increases

By some accounts, the cost of brand name drugs is accelerating at a rate of over 10% annually, with generics increasing at a slower rate, but still higher than in the recent past. In large part, this has to do with the AWP increases themselves and with the fact that many payers’ contracts are tied to a discount off the AWP. Since most employer prescription drug contracts are based on discounts from the AWP, consumer prices are at the mercy of the manufacturer’s price increases.

Pharmacy rebates—Another ingredient in drug costs

When we discuss prescription drug “costs,” we are talking about the costs incurred at point of sale. However, pharmacy costs are often reduced by manufacturer rebates. After a prescription is filled, the drug manufacturer may give a significant rebate to the PBM or health plan. The rebate amount typically varies by drug and by purchasing volume. To encourage use of their blockbuster drugs, manufacturers may give very high rebates, as much as 60% for a given drug. Patients, unfortunately, do not benefit from these rebates at point of sale. For example, if their out-of-pocket cost is 20% of the prescription price, then they pay 20% of the negotiated retail price and do not benefit directly from the rebates. Depending on the contractual arrangements in place, rebates reduce healthcare premiums indirectly, if they make their way all the way back to the insurance company (or self-funded employer), and are deployed to reduce premiums. The magnitudes of the rebate payments can materially affect a health plan’s net benefit expenses.

5 Milliman Commercial Health Cost Guidelines. Specialty drug spend may differ for other populations such as Medicare and Medicaid.

2015 Milliman Medical Index

May 2015
What is being done to limit growth in prescription drug costs?

Employers and employees alike are addressing the rising cost of prescription drugs in the following ways.

Encouraging consumerism. Employers continue to combat drug price increases with changes in their plan designs. One example is adding separate higher cost-sharing tiers for specialty drugs. It is also increasingly common to create two cost-sharing tiers for generics—one for lower-cost generics and another for higher-cost generics. Sometimes families are able to limit their out-of-pocket costs by being wise consumers—doing things like asking their doctors or pharmacists for generic alternatives when more expensive brand name drugs are prescribed, or even pursuing over-the-counter alternatives.

Narrow formularies. A formulary is a health plan’s list of the drugs which they will cover. It may also assign each drug to a tier which defines how much a patient has to pay out-of-pocket for that drug. Some employers and PBMs create closed formularies that limit the number of drugs on their formularies to improve manufacturer rebates and target products with the best clinical effectiveness, often coupled with lower copays or coinsurance. While choosing this type of plan may require families to change their prescriptions, the intent is to reduce costs for both families and employers without sacrificing health outcomes by excluding clinically substitutable medications, higher priced medications, or medications without significant manufacturer rebates.

Re-contracting. Employers often sign multiyear contracts with PBMs to lock in drug price guarantees, administrative expenses, and methods to share manufacturer rebates. Given the material shifts in the prescription drug landscape (PBMs and manufacturers), employers are finding that significant savings can often be achieved by re-contracting these financial terms. Employers can then leverage those savings by reducing their plan spending, improving their plan designs, reducing employee contributions, or some combination thereof.

There are many signs that drug costs will continue to see upward pressure, given the dynamics at play in the market. Employers and families both need to make changes if they hope to mitigate the financial impact.

There are many signs that drug costs will continue to see upward pressure, given the dynamics at play in the market. Employers and families both need to make changes if they hope to mitigate the financial impact.
HEALTHCARE REFORM

Last year’s MMI report noted that emerging reforms required by the ACA had yet to show material direct impact on the cost of care for our family of four because this family is often insured through large group health plans. Some of the most far-reaching ACA reforms are focused on access to insurance in the individual and small employer markets and have more immediate impacts on premium rates in those markets. While this modest impact continues in 2015, there are a number of influences that the ACA may have on costs in the large employer market over the next few years. Some of these influences will directly affect the large employer market—the Cadillac tax is the most visible such change—while others may be indirect, with spillover from provisions in other markets driving change in the large employer market.

Direct

Some employers with high-cost plans have begun to scale back their offerings in anticipation of the excise (Cadillac) tax on high-cost coverage starting in 2018. Those employer plans affected might initially be limited to outliers with extremely rich benefit plans. However, as illustrated in the excise tax sidebar, it is simply a matter of time before other plans like the one tracked by the MMI are caught by the excise tax. Once the threshold is exceeded, the amount of tax will grow every year because healthcare expense trends will likely exceed the CPI index used to adjust the threshold to years beyond 2018.9

Will premium for the MMI family trigger the ACA’s excise tax?

Probably. It’s just a matter of when. To answer this question, we translate the 2015 MMI into an implied premium, and compare it with the tax threshold. What we find is that the MMI family might hit the threshold within a few years of 2018, or possibly not until decades later, as shown in the table to the right. In this illustration, the answer depends on the rate of growth in healthcare costs and on the employer’s size. Higher rates of growth in healthcare costs will push premium rates over the threshold more quickly. The threshold increases annually too, but likely at a lower rate (2% in this illustration). Furthermore, the threshold is adjusted to reflect national cost trends, whereas a given employer’s costs may change at a much higher or lower rate due to local conditions or other effects. Employer size also matters because it typically affects the portion of premium that is attributable to loads for administrative expenses and health plan profit. Larger employers tend to command lower loads, when expressed as percentages of premium. If the MMI family were covered by a small employer, its premiums would more likely trigger the tax, even if its healthcare spending were the same.

While the MMI measures costs for a comprehensive PPO benefit plan, less comprehensive coverages have typically existed in the marketplace, such as scheduled benefit plans, which only cover specified services for specified amounts (e.g., a plan whose only benefits are $200 per inpatient hospital day). The ACA’s requiring minimum values10 of 60% and removal of benefit limits may serve to enrich some of these plans and lead to more expensive “average” plan offerings.

While these regulatory pressures are forcing employers to strongly consider scaling back coverage and pushing more cost sharing onto families, employers recognize that their health plans may become unaffordable for many employees’ families. The family of four represented by the MMI has total annual healthcare expenditures of $24,671, of which $10,473 is paid by the family, $6,408 through payroll deductions, and $4,065 in out-of-pocket expenses incurred at point of care. These figures represent significant (and increasing) percentages of family income, particularly for middle-income families. The U.S. median annual household income in 2015 is approximately $53,800.11 Employee expenses estimated by the MMI total 19.5% of that median household income, 11.9% for premium contributions, and 7.6% for out-of-pocket expenses. With income growth at slightly less than 2% per year12 and healthcare expense growth over 6%, health insurance will likely become even less affordable for many working families and for employers. With provisions discouraging health insurance plans from being either too lean or too rich, the ACA ensures that the healthcare burden will continue to be shared by both employers and employees.

9 The threshold will initially be increased by the CPI rate for All Urban Consumers (CPI-U) plus 1% in 2019. In 2020 and beyond, the threshold will be increased by CPI-U only. Over the past 10 years, CPI-U has averaged approximately 2%, which is well below the MMI trend of 7.3% over the same period.
10 The concept of “minimum value” is discussed in the Technical Appendix.
11 The 2013 median was $51,939. Projecting that amount forward at 1.8% per year (the average increase over the previous 10 years) gives $53,826 in 2015, or approximately $53,800.
12 Ibid.
Indirect

As noted above, the ACA most significantly affects the individual and small employer group markets, with a more marked effect for those with individual (non-group) coverage. The number of people with non-group coverage is relatively small compared with the number of enrollees in the group market, even with increases in the individual market insured population that started in 2014. Based on March 2015 baseline estimates by the Congressional Budget Office (CBO), there will be approximately 153 million nonelderly people in 2015 with employment-based coverage and 34 million with insurance purchased through an exchange, non-group market, and other channels. Therefore, the biggest ACA-related changes are affecting just a small portion of the total commercial market, so the fallout effects on large employers may be diluted relative to the effects on individual and small group coverages.

Nevertheless, there are various indirect effects we may see coming from the individual market and influencing our MMI family of four. First, price competition and new players in the individual market may cause lower provider reimbursement for the ACA markets than previously paid in individual markets. This could force higher reimbursement in the employer market as providers try to offset the difference. This same price competition may drive insurance companies to make up for lower profits or losses in the individual market by raising premium rates in the employer market. This impact will be mitigated by the relative size of the markets and by minimum loss ratio requirements, and because not all insurance companies operate in both markets.

In the other direction, arrangements made to encourage competitive premiums in the markets most affected by the ACA may spill into the employer market and reduce costs there. As noted in last year’s MMI, transparency, experimentation with provider risk-taking, and focus on outcomes may ultimately affect the future trajectory of healthcare costs. Exchange plans with extremely narrow provider networks have also been popular, due to their lower premiums, and those plans may get traction in the employer group market too. However, while MMI trends have been below historical norms in recent years, there is not clear evidence that the ACA caused significant reductions in healthcare costs, and trends appear to be moving back upward, driven in part by pharmacy.

With income growth at slightly less than 2% per year and healthcare expense growth over 6%, health insurance will likely become even less affordable for many working families and for employers. With provisions discouraging health insurance plans from being either too lean or too rich, the ACA ensures that the healthcare burden will continue to be shared by both employers and employees.

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**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
- Utilization levels representative of the average for people covered by large employer group health benefit plans in the United States

The ACA introduced the concept of “metallic tiers” for benefit plans starting in 2014. Individual and small group policies must have a metallic tier 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 83.5% in 2015.

**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 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. 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 payers 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.

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14 For example, for 2015, average benefits are assumed to have an in-network deductible of $800, various copays (e.g., $138 for emergency room visits, $31 for physician office visits, $11/18%/29% for generic/formulary brand/non-formulary brand drugs), and coinsurance of 18% for non-copay services.
Calculations Behind the Excise Tax Illustration

The steps below describe how we translated the MMI into an implied premium rate, and compared it to the tax threshold for a “medium-sized” employer in 2028, assuming “medium” cost growth.

### Projected Annual Premium

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<thead>
<tr>
<th>Description</th>
<th>Value</th>
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<tbody>
<tr>
<td>2015 MMI</td>
<td>$24,671</td>
</tr>
<tr>
<td>Subtract out-of-pocket costs</td>
<td>($4,065)</td>
</tr>
<tr>
<td>Premium portion of the MMI</td>
<td>$20,606</td>
</tr>
<tr>
<td>Adjustment for two-tier premium rate structure</td>
<td>0.758</td>
</tr>
<tr>
<td>Pricing loss ratio</td>
<td>87%</td>
</tr>
<tr>
<td>Estimated annual premium for MMI family of four in 2015</td>
<td>$17,953</td>
</tr>
<tr>
<td>Projected annual premium in 2028, at an annual growth rate of 7%</td>
<td>$43,264</td>
</tr>
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</table>

### Projected Excise Tax Threshold for Non-single Coverage

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Starting threshold in 2018</td>
<td>$27,500</td>
</tr>
<tr>
<td>Projected threshold in 2028</td>
<td>$33,858</td>
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</tbody>
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### Tax Incurred

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Premium subject to the tax</td>
<td>$9,406</td>
</tr>
<tr>
<td>Estimate tax at 40%</td>
<td>$3,762</td>
</tr>
<tr>
<td>Estimate tax as a percentage of total premium</td>
<td>9%</td>
</tr>
</tbody>
</table>

### Notes

1. This adjustment assumes that the employer has a two-tier premium rate structure, meaning that there are different premium rates for employees who cover only themselves, versus those who also enroll at least one dependent. Other premium tier structures are also common, but would require different (probably higher) adjustment factors. In general, having fewer premium rate tiers may tend to minimize the excise tax.

2. The pricing loss ratio is the percentage of premiums that are intended to fund healthcare expenses. The remainder funds health plan administrative expenses, plus insurance company profit if the plan is fully insured rather than self-funded. Pricing loss ratios vary by the employer group size, funding method (self-funded or fully-insured), and other variables. We have used 87% as an illustration for a medium-sized employer. For small and large employers, we used 80% and 94%, respectively.

3. \( = 20,606 \times 0.758 / 87\% \)

4. \( = 17,953 \times 1.07 \) ^ (13 years from 2015 to 2028)

5. This is the baseline 2018 threshold published in the ACA. It will ultimately be adjusted to reflect actual cost increases from the time the ACA was passed and 2018.

6. \( = 27,500 \times 1.01 \times 1.02 \) ^ (10 years from 2018 to 2028)
   
   The 1.02 is the average trend CPI-U over the ten years ending March 2015.
   
   The 1.01 is an additional 1% increase that the ACA requires for 2019.

7. \( = 43,264 - 33,858 \)

8. \( = 3,762 / 43,264 \)
For further perspective on how the Milliman Medical Index fits in the evolving healthcare system, visit our blog at:

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