2016 Global Medical Trends Survey

Willis Towers Watson

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Executive summary

Overall, respondents to our latest Global Medical Trends Survey continue to see global medical trend increase. They project the 2016 trend to be 9.1% on a weighted basis, up from 7.5% in 2014 and 8.0% in 2015. (To lessen the effect of market size and currency issues, we use weighted trend rates, with GDP as the weighting factor, for regional and global numbers.)

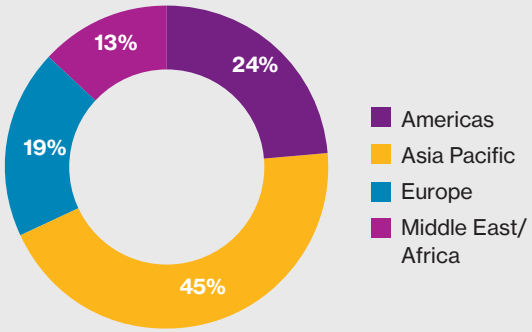
However, the situation may not be as dire as the global 9.1% increase indicates. Experience by country varies greatly, and to understand the global outlook, we must look at trend by individual country, its underlying causes and the country's outlook. In fact, some countries are seeing a slowing of trend, while in others, medium-term increases driven by factors such as demographics and economics could give way to a longer-term slowing of trend, driven by improved health and other factors.

Ten years of data from the Global Medical Trends Survey allow us to look at the historic trends in a few key countries to further understand underlying causes and help project more soundly into the future. This 10-year view also shows us just how quickly private medical care has evolved from being nice to have, to being an essential part of any employer benefit offering – not only in the countries we analyzed, but globally.

About the survey

The Willis Towers Watson Global Medical Trends Survey was conducted in October and November 2015, and reflects responses from 174 leading medical insurers operating in 55 countries. Most participants have at least a 10% share of the group medical insurance market in their country. The U.S. marketplace, which is covered by other Willis Towers Watson research, is not included in this survey.

Figure 1. **Participant profile**



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Getting the full picture on medical trend themes

The 2016 Global Medical Trends Survey report is the latest in a decade of work by Willis Towers Watson on global medical trends. It's part of our market-leading research on global health matters and the current state of medical trend globally. This research reflects the viewpoints of three constituencies – insurers, employers and employees – and explores current practice in employer plan design:

- **Insurer view.** The 2016 Global Medical Trends Survey provides the views of insurance carriers in 55 countries, not including the U.S.
- **Employer view.** The 2015/2016 Staying@Work Survey reflects the opinions of employers in 34 countries on employee health and well-being, and outlines the efforts employers are making to improve employee health and thereby improve productivity.
- **Employee view.** The 2015/2016 Global Benefits Attitudes Survey presents the views of 30,000 employees worldwide on their employer-sponsored health benefits, and the role of employers in health and well-being, consumerism and stress.
- **Plan design.** The 2016 Benefits Data Source Survey provides data on employer-sponsored plan designs covering more than 100 countries.

While this report focuses primarily on the latest global medical trend data, it also includes key findings from the employer and employee research to help clarify underlying issues and examine potential solutions for improving the delivery of health benefits globally.

When examined as a whole, our surveys show five overarching themes:

- Rising medical trend continues to be a major issue for employers.
- Rising medical trend is driven by (over)utilization and provider practices but also influenced by chronic population health issues globally.
- Employers need to develop a coordinated strategy that addresses the issue on multiple fronts: utilization management, provider management, and promotion of employee health and well-being.
- For the strategy to be effective, individual employers must understand their organization's specific drivers (data management).
- Vendors that can provide employer support in all of these areas will prevail.

Global medical trend

Private medical insurance trend continues to rise globally, from 7.5% in 2014 and 8.0% in 2015, to a projected 9.1% (all weighted) in 2016. The Americas (excluding the U.S.) continue to have the largest medical spend and a trend of 13.3% for 2015, and most Latin American countries face significant increases. Venezuela, which continues to struggle with hyperinflation, is experiencing exceptionally large increases (150% in 2015), but other Latin American countries face increases in the 10% – 18% range. For comparison, Willis Towers Watson research showed a U.S. trend of 5.2% for 2015.

Asia Pacific weighted trend averaged 6.4% in 2015, driven largely by 15% increases in Malaysia and 11% increases in India. At 5.2%, Europe has the lowest level of gross medical trend increases for 2015, although Russia (15% increase), Turkey (10.8%), Sweden (8%) and Norway (7%) were outliers.

In the Middle East and Africa, trend rose from 10.3% in 2014 to 12.6% in 2015, driven largely by increases in Nigeria (35%); Mozambique (30%); Angola (20%); and Kenya, the United Arab Emirates (U.A.E.) and Zambia, all at 15%.

Perhaps most concerning, more than half of health insurers in all regions expect trend to be higher or significantly higher over the next three years.

Figure 2. **How do you expect the medical trend in your overall book of business to change over the next three years compared to current rates?**

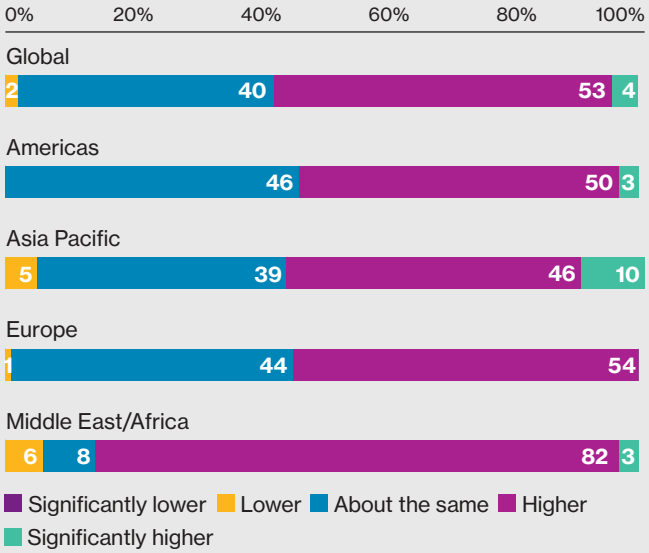


Figure 3. **Global average medical trend rates by country: 2014 – 2016**

	Gross			Net**		
	2014	2015	2016 (expected)	2014	2015	2016 (expected)
Global	7.5%	8.0%	9.1%	5.0%	5.1%	5.3%
Americas	10.6%	13.3%	15.3%	6.0%	5.7%	6.1%
Argentina	5.5%	6.0%	7.0%	NR	–10.8%	–18.6%
Barbados	11.0%	11.0%	11.0%	9.1%	9.8%	10.2%
Bermuda	6.2%	6.0%	6.5%	NR	NR	NR
Brazil	14.1%	15.7%	18.0%	7.8%	6.8%	11.7%
Canada	11.3%	11.5%	12.1%	9.4%	10.5%	10.5%
Chile	3.2%	3.7%	3.8%	–1.2%	–0.7%	0.2%
Colombia*	6.6%	5.4%	6.8%	3.7%	1.0%	3.3%
Costa Rica	12.0%	12.0%	15.0%	7.5%	9.7%	11.9%
Dominican Republic	5.0%	4.0%	5.0%	2.0%	2.9%	1.5%
Ecuador	12.0%	12.0%	12.0%	8.4%	7.9%	9.1%
El Salvador	10.0%	10.0%	10.0%	8.9%	11.2%	8.8%
Guatemala	9.0%	10.0%	11.5%	5.6%	7.1%	8.7%
Honduras	12.0%	13.0%	13.0%	5.9%	9.2%	7.6%
Mexico*	8.9%	11.8%	13.7%	4.9%	9.0%	10.7%
Panama	10.5%	11.0%	13.5%	7.9%	10.0%	11.5%
Peru	6.0%	7.3%	8.3%	2.8%	4.0%	5.5%
Trinidad and Tobago	12.0%	12.0%	12.0%	5.0%	3.9%	5.2%
Venezuela	50.0%	150.0%	200.0%	–12.2%	–9.1%	–4.1%
Asia Pacific	7.3%	6.4%	7.9%	4.9%	5.1%	5.6%
Australia	8.0%	8.0%	8.0%	5.5%	6.2%	5.4%
China*	8.6%	8.6%	8.9%	6.6%	7.1%	7.1%
Hong Kong*	7.6%	8.6%	8.8%	3.2%	5.7%	5.8%
India	9.8%	11.0%	12.0%	3.8%	5.6%	6.5%
Indonesia*	9.5%	9.3%	8.8%	3.1%	2.4%	3.3%
Malaysia	15.0%	15.0%	15.0%	11.9%	12.6%	11.2%
Philippines*	8.4%	7.9%	8.1%	4.3%	6.0%	4.8%
Singapore*	7.3%	5.3%	6.4%	6.3%	5.3%	4.6%
South Korea	2.3%	–3.0%	4.3%	1.1%	–3.7%	2.6%
Taiwan*	5.9%	4.9%	6.2%	4.7%	5.0%	5.2%
Thailand*	8.2%	8.9%	10.8%	6.3%	9.7%	9.4%
Vietnam	NR	NR	10.0%	NR	NR	7.0%
Europe	5.3%	5.2%	5.7%	4.3%	4.2%	4.2%
Belgium	4.7%	5.0%	6.0%	4.2%	4.3%	4.9%
Estonia	8.0%	6.0%	8.0%	7.5%	5.8%	6.4%
France	4.0%	3.5%	3.5%	3.4%	3.4%	2.5%
Germany	4.3%	4.0%	3.8%	3.5%	3.8%	2.6%
Greece	3.0%	4.7%	5.0%	4.5%	5.1%	5.0%
Italy	0.4%	0.7%	0.8%	0.2%	0.5%	0.1%
Norway	5.0%	7.0%	10.0%	3.0%	4.8%	7.8%
Portugal*	1.9%	1.0%	2.1%	2.1%	0.4%	0.8%
Russia	12.0%	15.0%	15.0%	4.2%	–0.8%	6.4%
Spain	3.0%	1.5%	1.2%	3.2%	1.8%	0.3%
Sweden	9.2%	8.0%	8.0%	8.9%	7.5%	6.9%
Turkey*	10.7%	10.8%	10.8%	1.8%	3.4%	3.9%
United Kingdom	5.8%	6.4%	6.5%	4.3%	6.3%	5.0%
Middle East/Africa	10.3%	12.6%	12.2%	6.4%	8.4%	7.5%
Angola	10.0%	20.0%	20.0%	2.7%	9.7%	5.8%
Cameroon	5.0%	5.0%	5.0%	3.1%	3.0%	2.9%
Gabon	0.0%	0.0%	0.0%	–4.5%	–0.6%	–2.5%
Ivory Coast	5.0%	5.0%	5.0%	4.6%	3.4%	3.5%
Kenya	13.8%	15.0%	18.8%	6.9%	8.7%	12.8%
Mozambique	14.0%	30.0%	30.0%	11.7%	26.0%	24.4%
Nigeria	NR	35.0%	10.0%	NR	25.9%	0.3%
Senegal	5.0%	5.0%	5.0%	6.1%	4.4%	2.9%
South Africa*	8.1%	8.0%	9.4%	2.1%	3.1%	3.5%
U.A.E	15.0%	15.0%	15.0%	12.7%	11.3%	12.0%
Zambia	10.0%	15.0%	30.0%	2.2%	7.7%	22.5%

*Countries with significant participation **Net of general inflation
Note: No response is indicated by NR.

A closer look: five key countries

Below is an analysis of medical trend data and some commentary on changes we've seen over the last 10 years for five key countries.

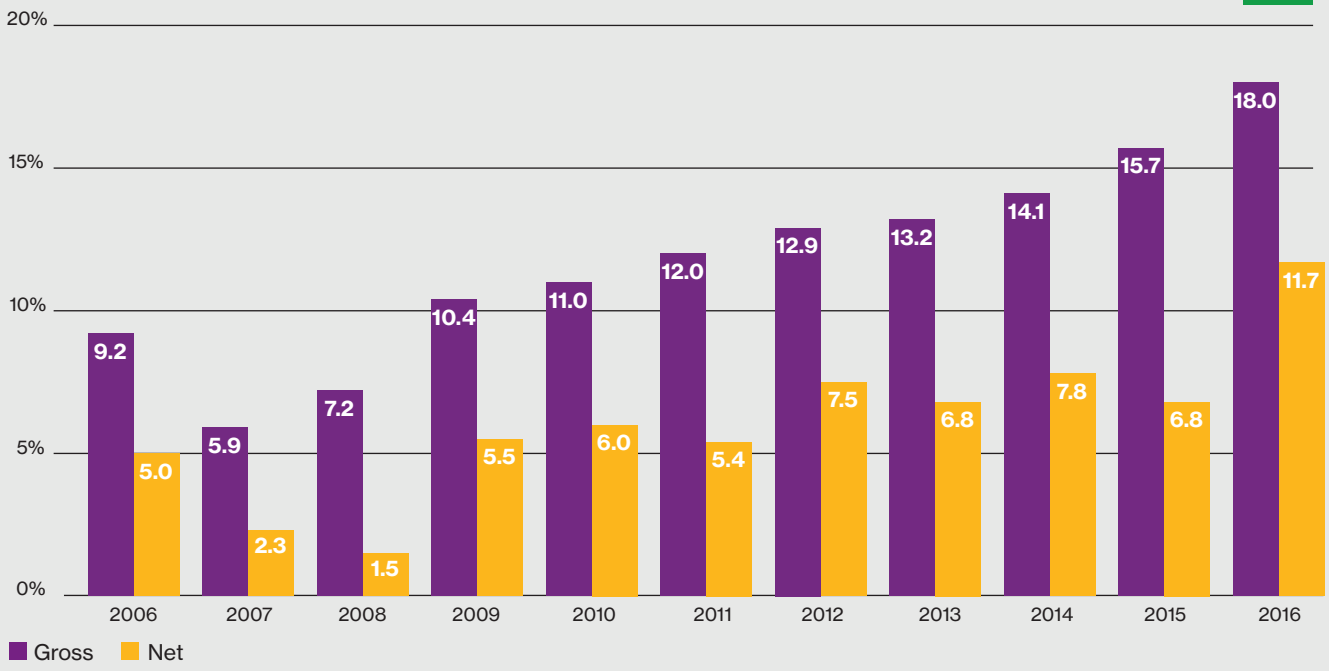
Brazil

Figure 4 shows the almost continual rise of medical trend in Brazil over the last decade. This trend has been significantly influenced by the Brazilian Health Care Agency's regulation of the market and its regular updates of the list of procedures/events that must be covered by an employer's plan. Adding to trend increase, providers are remunerated through a fee-for-service approach, which encourages unnecessary tests and overtreatment. Brazilians' growing awareness about the need to be more involved in their own health has contributed to a short-term cost increase, but we expect that over the medium and longer term, costs will decrease as employees become healthier.

A lack of cost sharing with employees is another factor that has influenced Brazil's costly health care programs. Deductibles and copayments, long a feature of U.S. programs and now becoming more widespread globally, have been prohibited under the Brazilian system. However, the Brazilian Health Care Agency is expected to authorize new plans that incorporate these features as well as products similar to U.S. health savings accounts.

Given the significant cost of health programs in Brazil, more companies are choosing to follow a self-funded approach, taking on more claim risk in the hope of better controlling their premiums, and implementing well-being programs and better employee education.

Figure 4. **Ten-year view of medical trend data in Brazil**

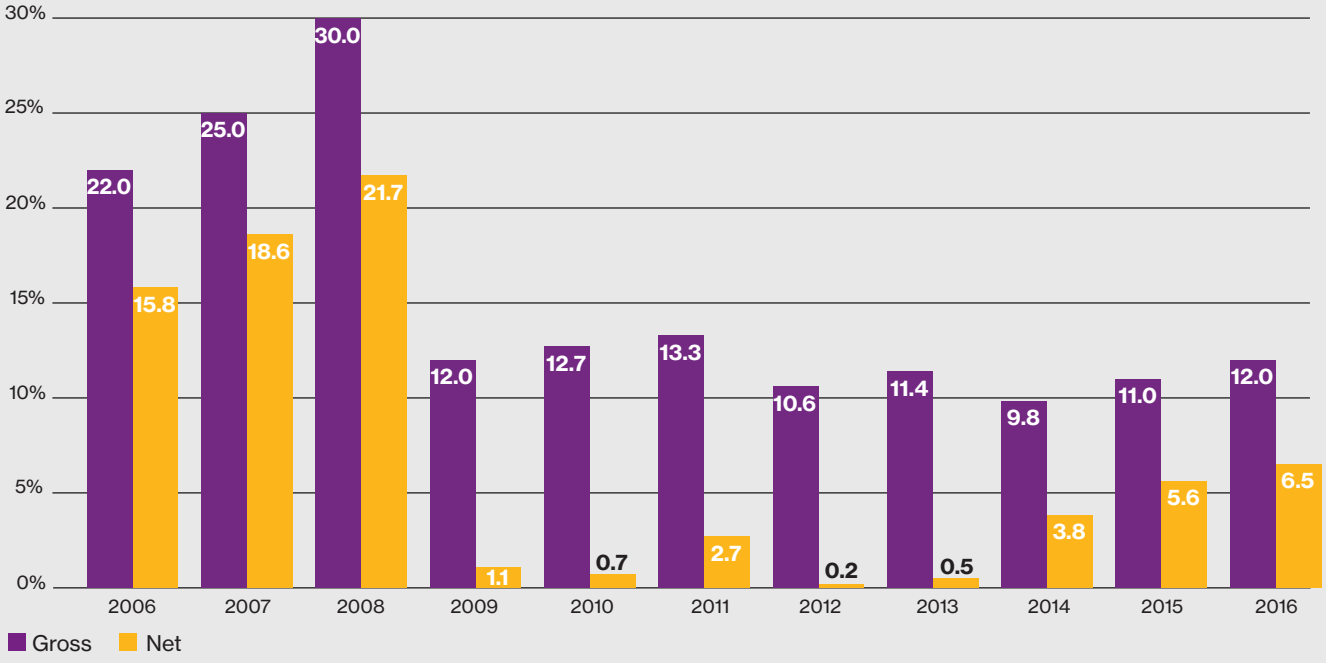


India

As *Figure 5* shows, in the last several years, medical trend has slowed from where it was at the beginning of the decade to something more in line with wage inflation. The health insurance industry in India went through radical change at the beginning of the decade as more employers began offering health benefits. Employer-provided group health insurance was not common 15 years ago; instead, cash and a wide range of allowances were common, including an allowance providing a rebate for submitted medical-related receipts. Employers often provided personal accident coverage and later began providing life insurance. As the demand for group health insurance grew, insurers used it as a loss leader and rider to these other coverages as a way to grow market share. The Insurance Commission banned this pricing approach, forcing insurers to set market-based health insurance premiums, which in turn led to significant trend increases.

The health insurance market has stabilized recently, although provider networks have grown, and innovative products that promote preventive care and well-being are being offered as the market moves away from a pure indemnity approach. What's more, the high demand for health services, coupled with a limited number of providers, has prompted some employers to create direct relationships with certain hospitals to ensure their employees can get care in a timely manner. However, there is still a lack of transparency in costs of services. Many employers pay rates that are far higher than average, making it important for employers to analyze their costs and negotiate with providers.

Figure 5. **Ten-year view of medical trend data in India**



Mexico

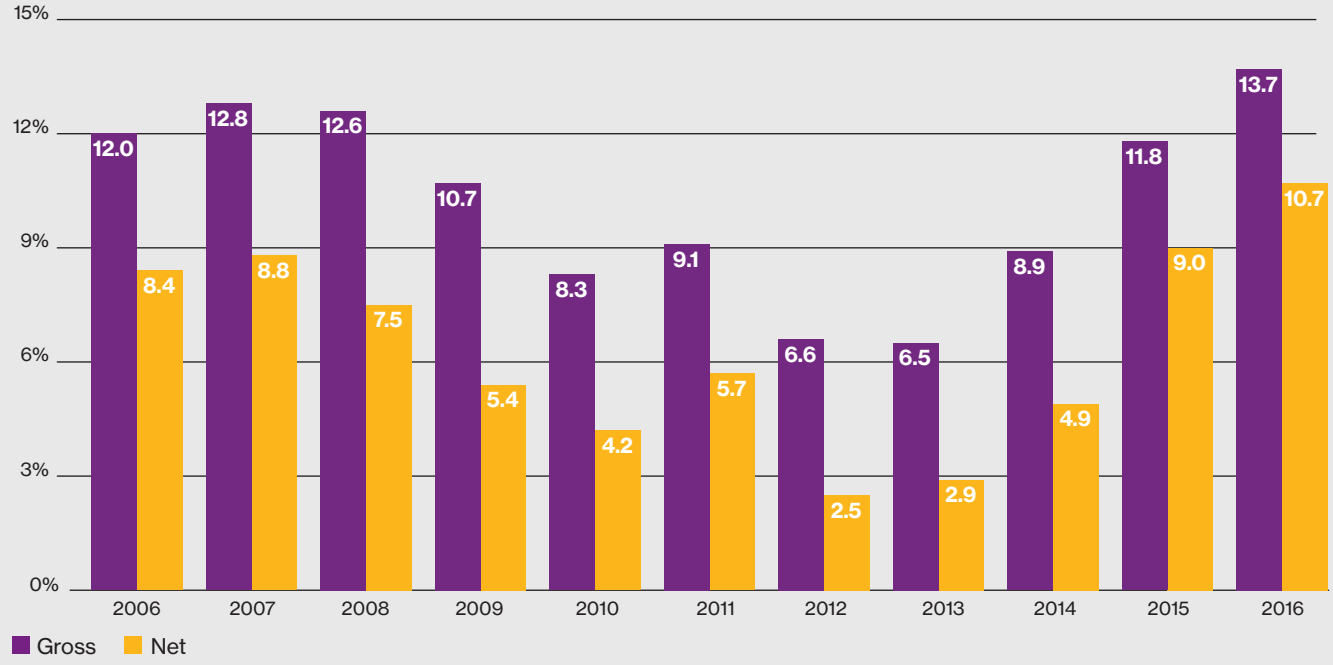
Figure 6 shows a different picture in Mexico. There, trend slowed in the middle of the decade but has started to pick up again recently. Mexican employers have typically focused their benefits on major medical plans rather than outpatient and preventive care. Consequently, employee well-being has not been emphasized, although that is starting to change.

In addition to an aging workforce, reasons for a rise in trend in Mexico include:

- Limited choice in private hospitals and limited regulation in hospital fees and rates
- Recent depreciation of the Mexican peso, which has impacted the cost of new technology, instruments and medicines imported from the U.S.
- An overcrowded, poor-quality public health system, which has resulted in a greater incentive to use the private health system
- Overuse of health services due to cultural reasons (e.g., the government promoting the use of lap-band surgery and other major interventions to combat obesity and the diabetes epidemic) as well as economic incentives to practitioners that encourage overutilization

Many Mexican employee benefit programs include cost sharing through deductibles and copayments. Therefore, the primary method for decreasing trend may be to promote preventive care and ensure employees are incentivized to stay on top of minor medical problems so they do not lead to major interventions.

Figure 6. **Ten-year view of medical trend data in Mexico**



The United Arab Emirates

Across the U.A.E. and the wider gulf region (notably Saudi Arabia), new regulations and legislative changes are driving the medical insurance market. Each Emirate has its own health authority, each with its own regulations and minimum coverage standards, and many are contemplating mandatory health insurance systems. Abu Dhabi and Dubai have taken the lead and established health care systems that require employers to provide a minimum level of coverage for their employees. Expatriates make up 87% of the overall population in the U.A.E., and this has driven the introduction of these new rules. The vendor market is likely to be affected by these changes. There are currently some 60 insurance companies operating in the U.A.E., but the new regulations will probably result in a fair amount of consolidation in the coming years.

Of the eight multinational insurers operating in the U.A.E., some are making significant investments in technology, which is helping to move the market forward in the following areas:

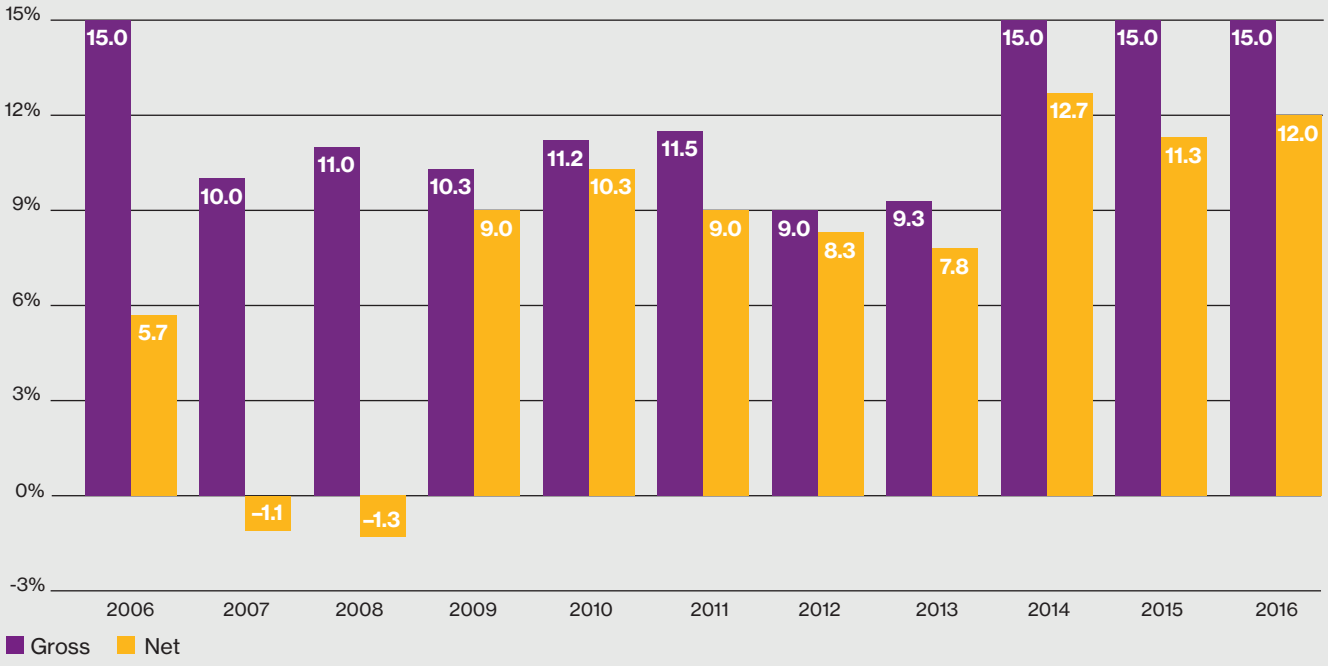
- **Customer service.** Service levels are still generally low compared to mature markets, but insurers' propositions are improving gradually.
- **Claim management.** The focus is on controlling overutilization, fraud and abuse.
- **Wellness.** The emphasis is on addressing the substantial burden of lifestyle-related chronic diseases in the region.

In addition, a short-term increase in costs to meet the technology investments could give rise to greater efficiencies and better cost management in the future.

Figure 7 shows that medical trend is projected at 15% for 2016, the same level as a decade ago. While there have been slight decreases in between, trend remains consistently high in the U.A.E.

More information can be found in our Middle East Health Care Survey 2014/2015.

Figure 7. **Ten-year view of medical trend data in the U.A.E.**



The United Kingdom

Figure 8 shows that medical trend in the U.K., which once far outstripped inflation, has slowed in recent years due to initiatives adopted by medical insurers. The key drivers of increased claim incidence through this period have been:

- A maturing demographic of insured individuals and an aging workforce
- Challenges accessing government-sponsored health care in a timely fashion, driving individuals to seek private (including employer group) coverage
- Wider availability and increasing use of more costly complex medical treatments (including new-generation cancer drug therapies)
- Technological advancements

As both the provider market and insurers have consolidated, insurers are using their size to leverage more favorable pricing agreements with key hospital groups and service providers. In addition, some smaller insurers, such as Aviva and VitalityHealth, have formed an independent health care purchasing alliance to procure competitively priced hospital treatment for their members.

In addition, most U.K. insurers now operate an optional directional plan, whereby the insurer chooses/directs patients to the relevant clinician or hospital group rather than leaving the choice up to individual patients or their general practitioners. This program allows insurers to secure more favorable macro-deals, manage the episode cost more closely and ensure adherence to best practice protocols.

In another effort to control costs and ensure best outcomes, providers are actively promoting self-referral pathways to ensure patients receive the right interaction and intervention at the earliest possible opportunity.

Finally, we are seeing an increasing number of insurers looking to either embed or deliver well-being and preventive services alongside traditional medical plans as a way to promote positive health behaviors and improve employee engagement.

It is also worth noting the long-running review by the Competition and Markets Authority (CMA) regarding competition within the health care industry, which is expected to publish its final report in March 2016. We expect that the CMA review and outcomes will positively influence cost and therefore future medical inflation.

We anticipate continuing challenges in accessing prompt treatment within the state-sponsored National Health Service, which will continue to drive demand and cost within the private health care market. In addition, the trend drivers mentioned above – particularly the aging workforce and broader health challenges facing the U.K. population – will continue to have a significant influence and be key in shaping both the private and state-sponsored health care systems.

Figure 8. **Ten-year view of medical trend data in the U.K.**

What is driving cost?

While there are different factors at play for each country in our survey, three broad themes are apparent:

- While hospital/inpatient services are driving the highest expense increases, all other services are not far behind, including outpatient, maternity, pharmacy and dental *(Figure 9).*
- As in previous years, the higher cost of medical technologies is the most significant factor outside the control of employers and vendors *(Figure 10).*
- Overuse of services, driven both by providers' recommendations and employees seeking inappropriate care is also a cause of rising trend *(Figure 11).*

While employers and vendors have no control over the cost of medical technologies, they can mitigate the cost and overuse of services by making employees better consumers of health care (e.g., encouraging prevention and considering the implementation of wellness programs). In addition, employers can implement provider and vendor management programs to better control overuse of services.

Results from our most recent Global Benefits Attitudes Survey (GBAS) indicate that forgoing care could be a bigger issue than overuse of services. Over the long term, postponing care can result in more expensive and complex cases. About 50% of employee respondents to our GBAS say they skip or change their medication, or delay or avoid

Figure 10. **What are the three most significant factors driving medical costs (external factors)**

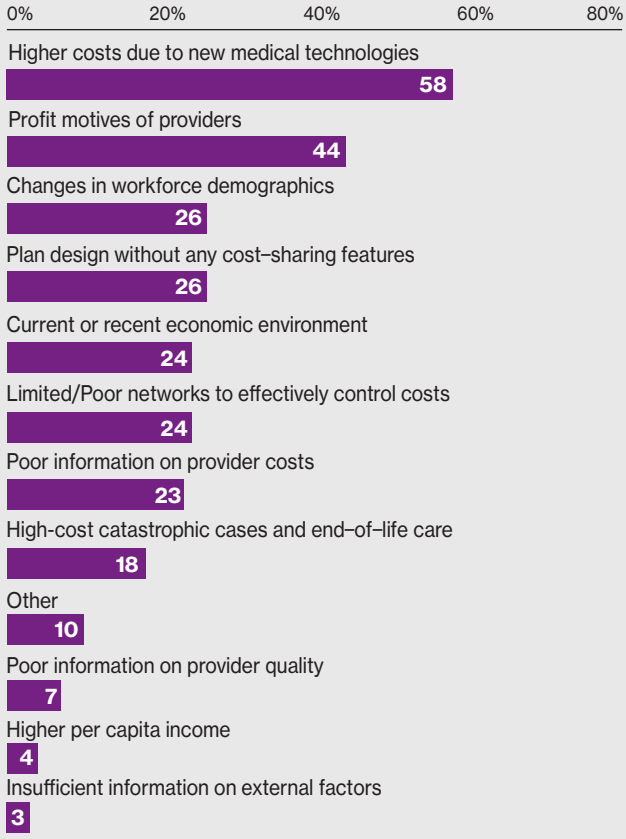


Figure 9. **How do you expect the expenses related to the following service categories to change over the next five years?**

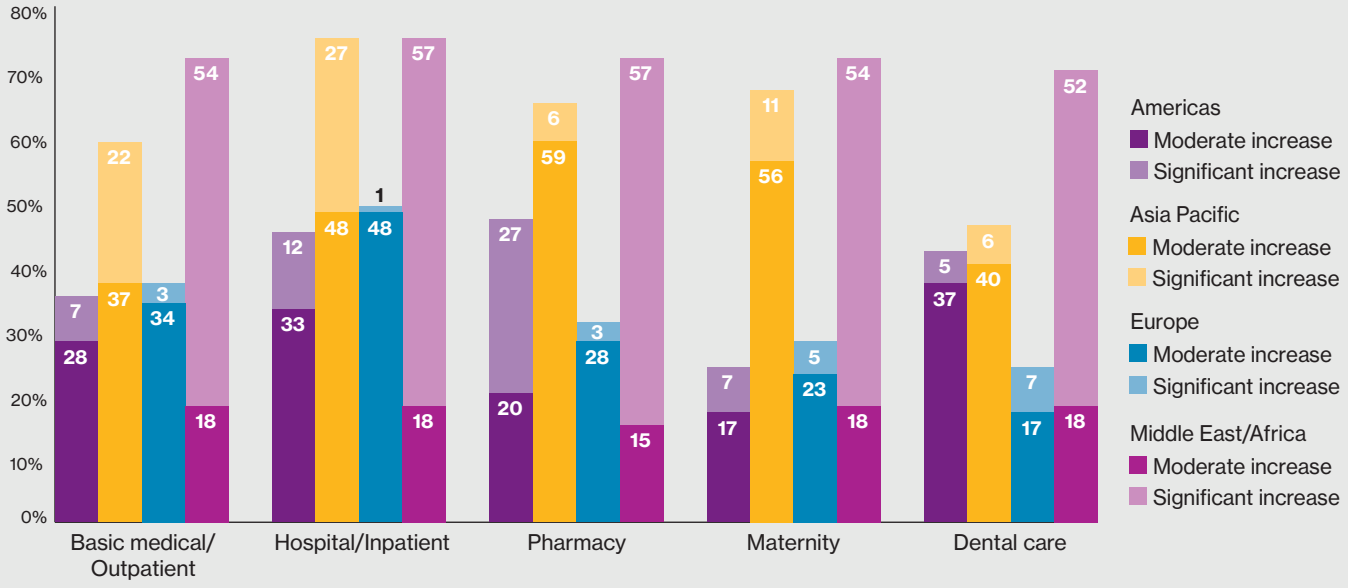
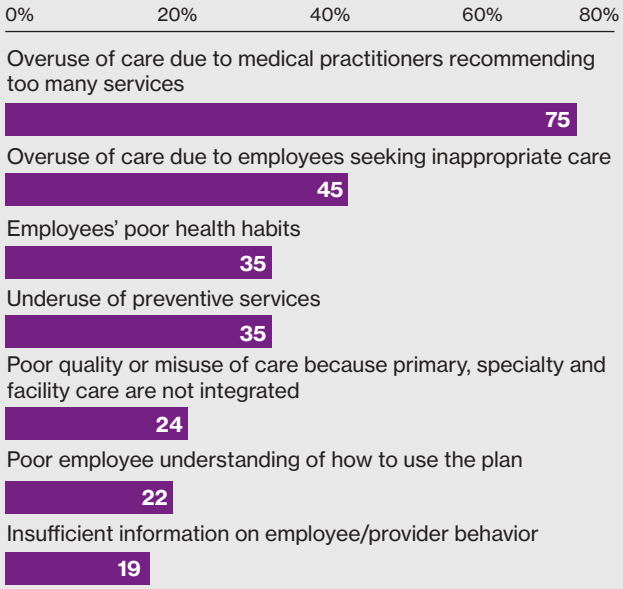


Figure 11. **What are the three most significant factors driving medical costs (employee/provider behavior)?**



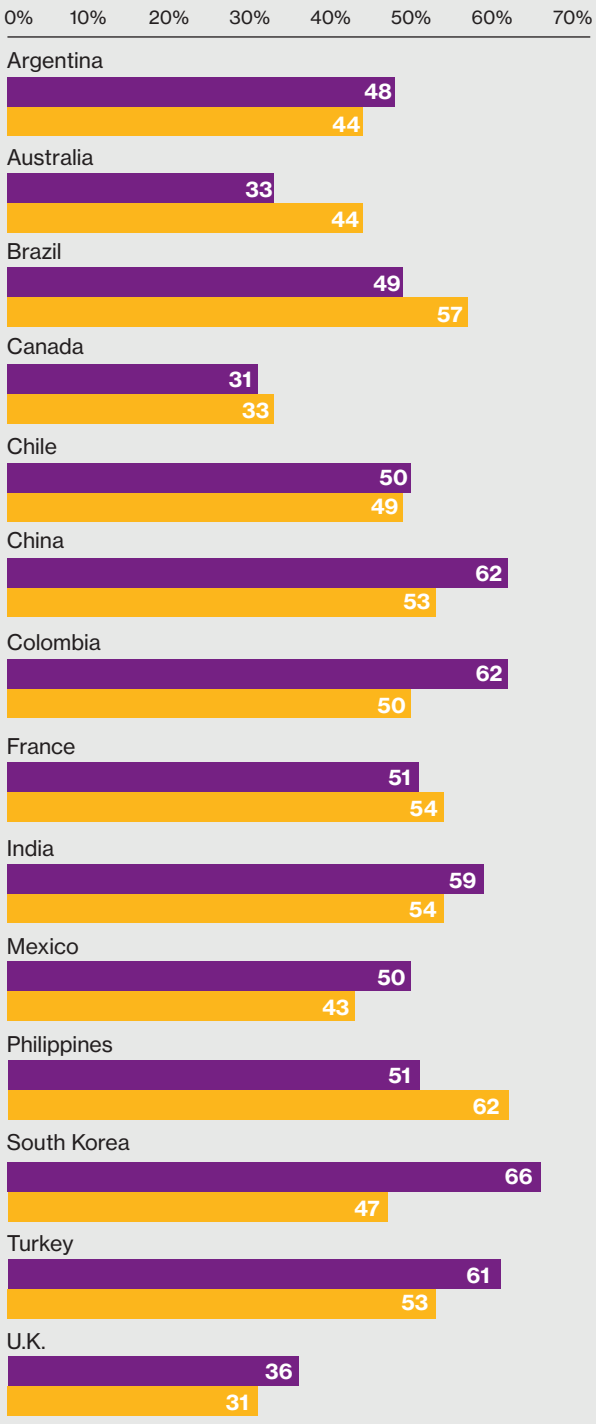
a medical test or procedure prescribed by a doctor. These percentages are lower for some developed countries such as Australia, Canada and the U.K. *(Figure 12).*

Our GBAS also asked employees about their use of technology to stay engaged with their health *(Figure 13).* Only 21% of insurance companies report that they offer mobile apps to monitor or manage health, either through their own insurance services or through a partner. However, our GBAS results suggest technology for care delivery could be a promising way to improve efficiency and help individuals manage their health, receive health information and education (e.g., information on provider quality or appropriateness of care), and even deliver care (e.g., telephonic provider appointments). Younger respondents are particularly open to health-related technology.

Primary diseases globally

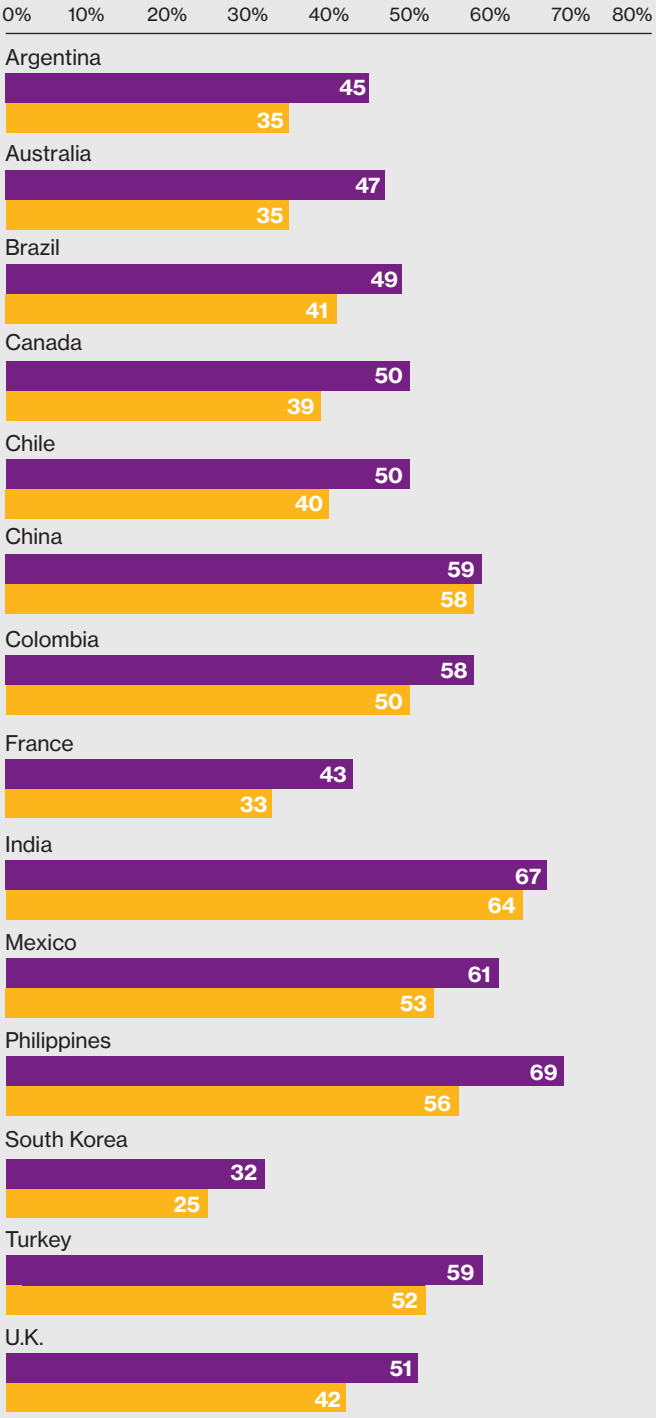
Cardiovascular disease, cancer and respiratory illness remain the top three diseases reported worldwide, and respondents don't expect the situation to change in the next five years. Claims for cardiovascular disease have significantly increased in prevalence in the Middle East and Africa over the past several years. Diabetes is conspicuously absent from this list, which is surprising given its systemwide effects on individuals. However, it may not appear as a top disease because major medical (hospital-only coverage) predominates in many countries, and diabetes is handled primarily on an outpatient basis *(Figure 14).*

Figure 12. **In the last two years, have you skipped or changed medication, or delayed or avoided a medical test or procedure prescribed by a doctor?**



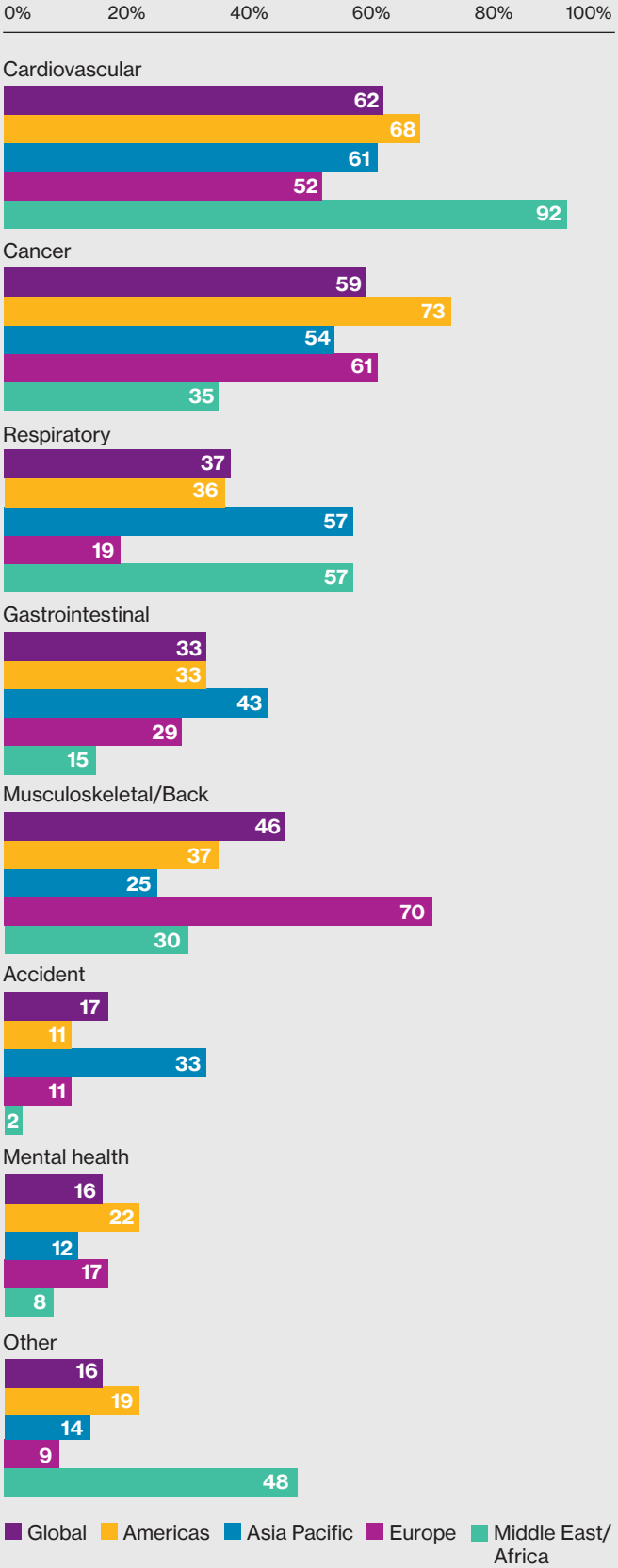
Source: 2015/2016 GBAS
Sample: Canada – full-time employees with employer-based health care; other regions – all respondents

Figure 13. **To which extent are you comfortable using technology to track your health or have a consultation with a medical professional?**



Source: 2015/2016 GBAS
Sample: Canada – full-time employees with employer-based health care; other regions – all respondents
Note: Percentage of respondents indicating "agree" or "strongly agree"

Figure 14. **What are the top three conditions (excluding maternity) currently causing the highest prevalence of claims in your medical client portfolio?**



Managing medical trend

As in prior surveys, respondents identified member coinsurance as the most typical cost-sharing approach in all regions except Europe *(Figure 15).* Using coinsurance and deductibles as a plan design feature does more than just defray the amount of the deductible; it helps drive employees to be better consumers of health services if they must pay for a portion of their care. Coupled with direct education, these design features can be a powerful cost mitigation tool, so it's not surprising that our Benefits Data Source findings show an increase in these features in our clients' plan designs. However, such features are prohibited in some countries.

Other cost management methods limit certain services and cap maximum claims for some treatments. The strict application of exclusions, such as limiting cosmetic services disguised as regular services, is also used. Other important tools are the use of contracted networks and preapproval for inpatient services and diagnostic tests *(Figure 16).*

In addition to these strategies, employers should also focus on the demand side of the equation by empowering employees to manage their own health. Strategies include offering preventive care and wellness initiatives, and encouraging employees to make healthy lifestyle changes.

Figure 15. **How typical are the following cost-sharing approaches for the medical products you offer?**

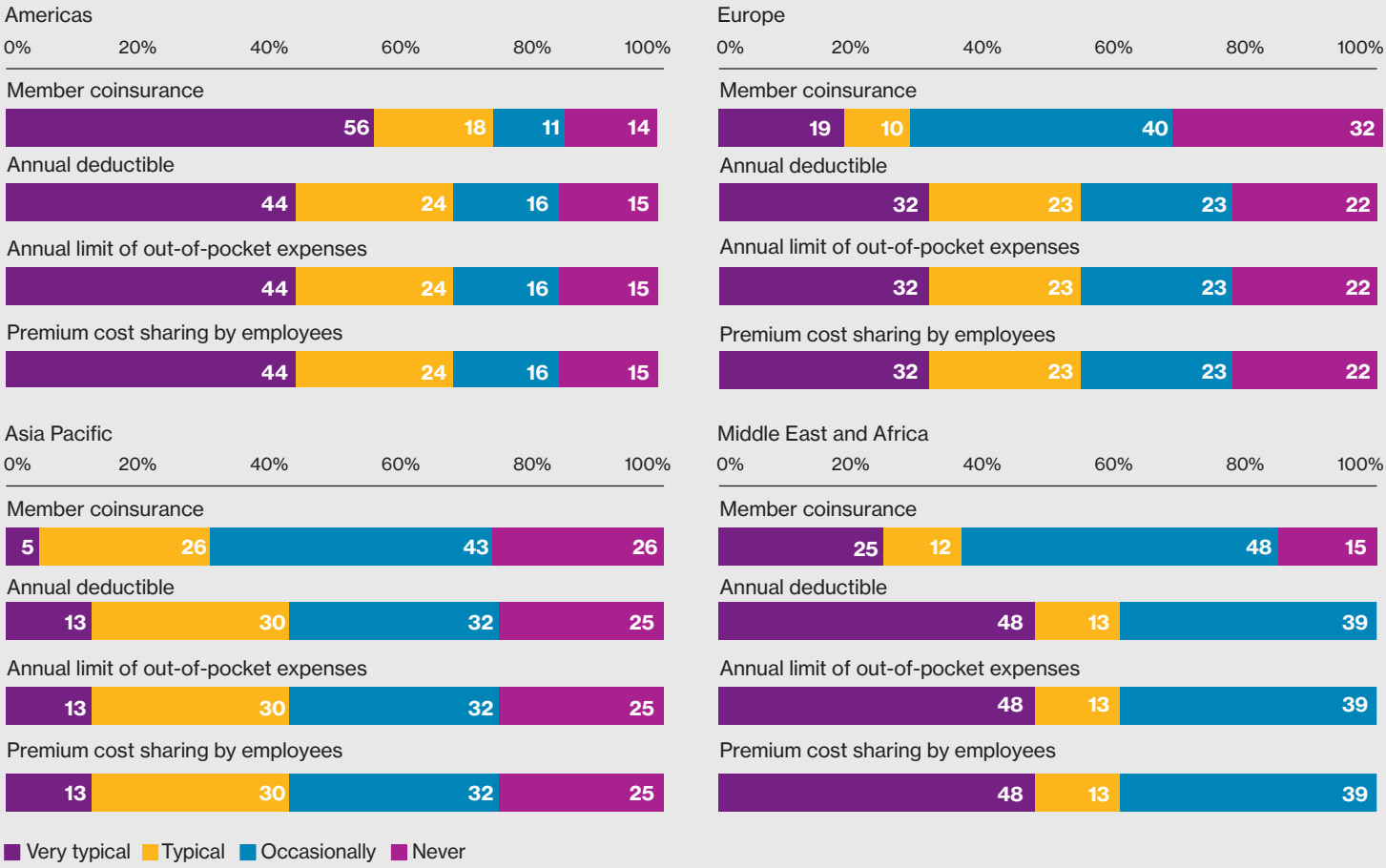
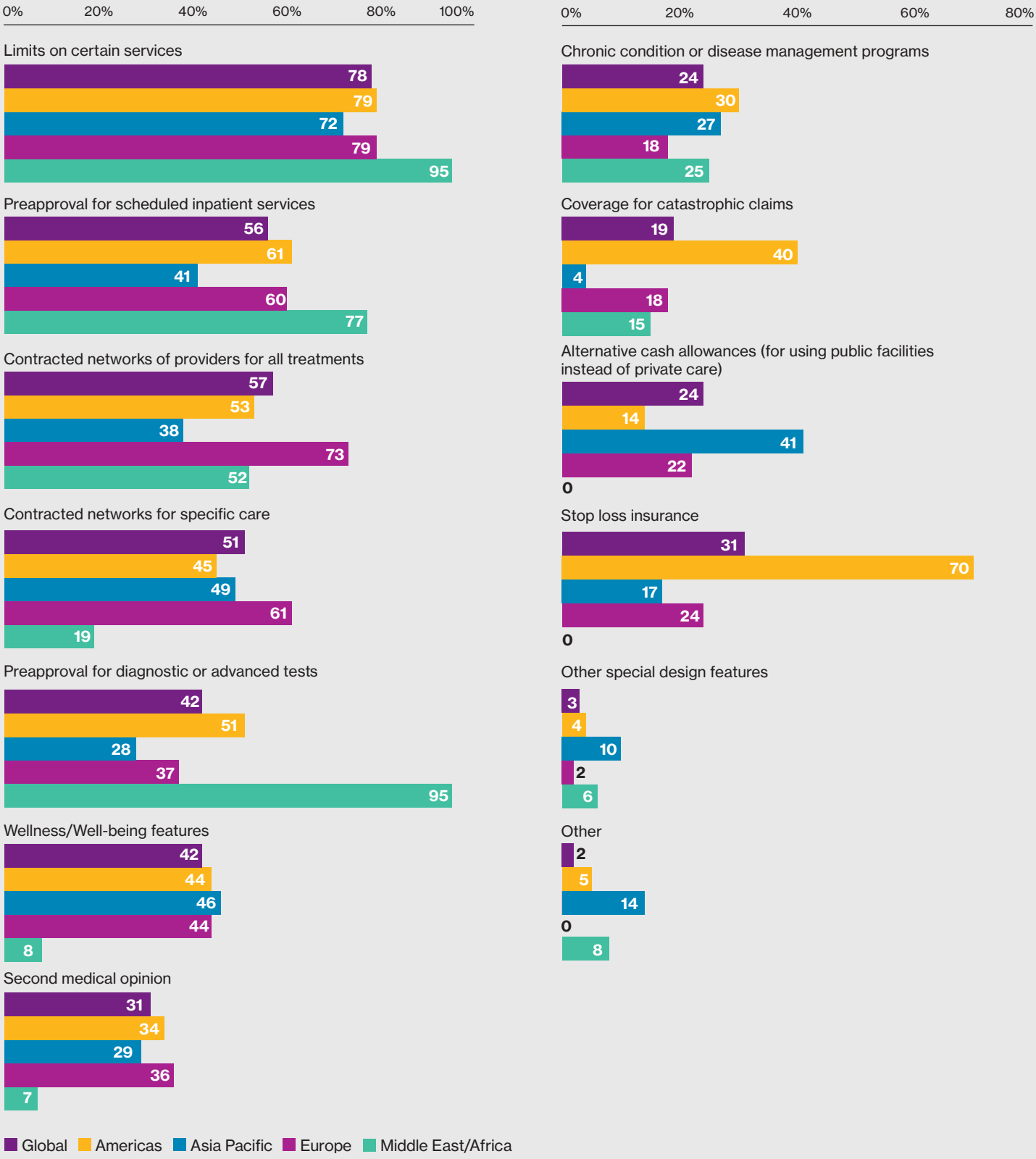


Figure 16. **What are the most effective tools you employ for managing medical costs?**



To help with that effort, the percentage of respondents that offer health promotion features, either directly or through a partner, continues to grow. More than half of respondents or their partners currently offer a personal health risk assessment/appraisal to clients, more than half offer biometric screenings and a second medical opinion feature, and 45% offer an employee assistance plan. However, our Staying@Work research shows that the availability of vendors offering wellness programs is not by itself a significant factor in helping improve employee health. In addition, employers need to focus on developing a workplace that encourages a culture of health through a combination of wellness programs that target the organization's population health issues, ongoing internal communications that promote healthy lifestyles and clear support from leadership.

Claim coding and the importance of data management

The percentage of respondents using ICD-10 as a claim-coding system remains at 43%, the same as in 2014, and 22% use ICD-9, up from 16% in 2014. A higher percentage of respondents from the Middle East and Africa use ICD-10 than other regions, and the Americas are the lowest, at 28%. Use of commonly accepted claim-coding systems such as ICD-9 and 10 makes it easier for multinational employers to get consistent claim data reporting and facilitate data management.

While we would prefer to see a larger percentage of respondents adopt the ICD-10 coding system, historical data show that respondents are moving in the right direction *(Figure 17).* In particular, the percentage of respondents that use local coding or no coding at all has steadily decreased since 2012. In fact, this year, only 19% of respondents reported using a local coding system, down from 27% in 2014 — a sign of real progress.

Finally, respondents were asked to specify the types of claim data they provide clients. For clients with more than 500 lives, 73% provide data on the top 10 claims by condition, although 59% provide high-level claim data only (total claims incurred) *(Figure 18).* This is encouraging for employers, as they should start to see better claim reporting on credible-size groups.

Key opportunities for controlling medical costs

Insurance companies worldwide have significant opportunities to work with clients to stem ever-increasing medical trend and improve employee health. Employer access to consistent employee health data is key, and insurers' shift to the use of globally consistent coding systems such as ICD-10 can help immensely in this area. In addition, making detailed claim data (as opposed to high-level data only) readily available to clients will allow them to make the most informed decisions about health benefits, wellness programs and progress toward a culture of health within their organizations.

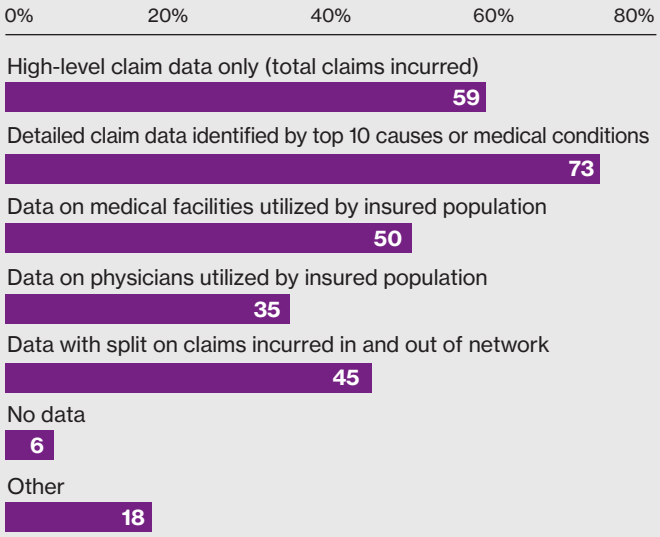
While the more expected methods of cost management such as coinsurance prevail, insurers are increasing their offering of health promotion and well-being programs. These programs hold great promise for addressing at least two of the three major diseases globally (cardiovascular and respiratory disease) as well as other diseases that arise from lifestyle choices such as smoking, poor eating habits and lack of regular exercise. While respondents' health promotion program offerings continue to grow globally, there is still an opportunity for insurers to work more closely with employers to better understand employee population health risks and employees' preferred ways of using health promotion programs.

Insurers that can develop new and more effective ways to work with employers — by creating benefit programs that meet ever-changing needs, providing useful and timely data, and working closely with them to incorporate wellness activities into their health programs — will gain competitive advantage.

Figure 17. **What claim-coding system do you use to adjudicate medical claims?**

	2012	2014	2016
ICD-10	35%	43%	43%
ICD-9	33%	16%	22%
Local coding system	15%	27%	19%
Other	5%	6%	10%
None	12%	8%	6%

Figure 18. **What type of claim data do you make available for your clients?**



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