PACIFIC PRIME
Simplifying Insurance

# International Private Medical Insurance Inflation Report 2018

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PPGlobal2018IPMI

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# Global IPMI Inflation - 2018

Welcome to the 2018 edition of Pacific Prime's International Private Medical Insurance Inflation report. As with previous versions, this report has been produced to analyze the premium increases seen from between 2009 to 2017. Contained within is an in-depth analysis of the inflation of the most popular plans offered by eight major insurers in the top locations for international private medical insurance (IPMI).

Continuing the format from previous years, we have grouped the ten locations in this report into three regions: Asia, the Middle East, and Rest of the World (excluding the USA and Canada).

From the outset, it should be noted that all premiums used in this report are based on individual health insurance plans. The inflation trends, however, can be viewed as an accurate reflection of the changes impacting health insurance as a whole. We would also like to point out that all figures mentioned in this report are numerical averages, and are not weighted either year-on-year, or by size of the insurer.

This year, there is one important change we have implemented for this report: We have switched our source for Consumer Price Inflation (CPI) data to what we believe to be a more reliable source: The International Monetary Fund. As such, this has resulted in slightly different CPI figures from those in previous reports.

# Key Findings and Sections of the Report

This report divides our findings into four major sections:

1

## Average IPMI inflation in 2017

By taking the average IPMI inflation figures from the ten locations included in this report, we found that the IPMI inflation rate was 7.0% in 2017. This represents a 2.2 percentage point decrease from 2016's average inflation figure of 9.2%.

The overall aim of this report is to provide you with an understanding as to why inflation was lower in 2017, and whether this is a trend we can expect in the future. The Average IPMI Inflation in 2017 section of the report also presents a historical, year-on-year overview of inflation compared with CPI inflation from 2009 to 2017.

2

## Insurers

The Insurers section of this report discusses average IPMI inflation of the eight major insurers included in our study. From our analysis, we can report that in 2017 **Cigna Global** had the lowest average premium increase worldwide.

We are also pleased to report that, as with the last report's findings, **Aetna International** had the lowest five-year average IPMI inflation.

It is important to note that the inflation results reported here do not mean that the above providers offer the lowest premiums. Rather, their plans had the lowest premium inflation in 2017.

3

## Inflation drivers

Based on our analysis of 2017's figures along with current industry trends we believe that two drivers listed as 'emerging' in previous reports can now be considered key drivers, bringing the total up to six:

- New medical technology
- An imbalance of healthcare resources
- Increased compensation for healthcare professionals
- Healthcare overutilization
- Changing population dynamics (new key trend)
- The increasing adoption of non-industry specific technology (new key trend)

That said, we have also identified two short-term drivers that had an impact on premium inflation in 2017 and will likely have an impact on premiums in 2018 as well:

- Increased compliance and regulations
- A more favorable global economy

We include an in-depth look at the two factors above in the Inflation Drivers section of the report.

# 4 Analysis of inflation by country

In order to provide a more thorough analysis of IPMI inflation, we have included a country-by-country breakdown of inflation. Each of the ten countries in the report has an inflation overview along with a look into their local drivers of inflation.

One thing of note here is that the global averages presented in this report exclude Dubai as plans there are drastically different from international plans sold elsewhere. However, we continue to believe that this Emirate is one of the most important locations in terms of IPMI largely due to their current coverage regulations.

In the Middle East section of the report we have included an in-depth look at Dubai along with the impact it has had on inflation in the region and globally. If you are interested in learning more about the potential future of international health insurance, it is well worth reading this section.

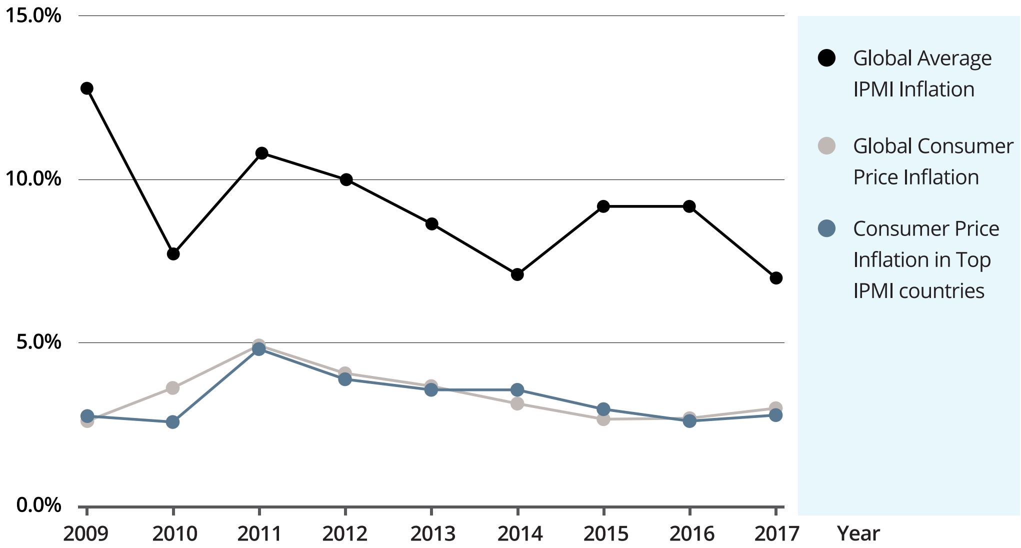
## Important assumptions

This report has been written with one major assumption: The primary driver behind IPMI inflation, and any health insurance inflation for that matter, is the cost of healthcare. As has been mentioned in previous versions of this report, IPMI inflation is usually within 1-2 percentage points of healthcare inflation.

According to Aon's 2017 Global Medical Trend Rates report, in 2017, the global average medical trend rate was 8.2%. This is just over one percentage point higher than the global average IPMI inflation rate of 7.0%, which once again highlights the fact that the two trends are closely related.

# Average International Private Medical Insurance Inflation in 2017

## Average IPMI and Consumer Price Inflation: 2009 - 2017




The chart above presents the average international private medical insurance (IPMI) inflation rate across the globe from 2009 to 2017. **In 2017, the global percentage increase of IPMI premiums was 7.0%**.

Interestingly, we discovered that the global IPMI inflation rate in 2017 was 2.2 percentage points lower than the 2016 inflation rate of 9.2%. When compared to the annual premium inflation rates recorded between 2009 to 2016, the global IPMI inflation percentage in 2017 hit a record low. In other words, while overall IPMI premiums increased in 2017, average prices of IPMI products increased at a comparatively lower rate than the previous eight years.

Furthermore, when you compare the 2017 IPMI inflation rate with the global Consumer Price Inflation (CPI) rate, health insurance inflation was 3.9 percentage points higher. As with previous years, it appears that health insurance inflation has remained mostly immune from global price inflation trends in 2017.

Historically speaking, the percentage difference between CPI and annual IPMI inflation usually maintained at about five percentage points, yet in 2017 the gap between the two figures narrowed marginally. While the gap indeed narrowed in 2017, chances are high that the IPMI inflation rate and its difference with CPI will be similar to previous years come 2018 (find out the main reasons why in the Insurer's section).

It is worth noting here that, as with 2017's report, we have excluded Dubai's average premiums when generating this report's global IPMI inflation rate. An explanation for Dubai's exclusion is in the Dubai section of the report, however the simplified reason is due to the final roll-out of mandatory health insurance in 2017. This has meant that insurers have had to implement new locally compliant plans that meet the region's health insurance regulations. As such, there is not enough historical data available to provide an accurate measurement of Dubai's 2017 premium inflation.

# IPMI premium inflation over time

When looking at the *Average IPMI and Consumer Price Inflation: 2009 - 2017* chart above, it is clear to see that premium inflation figures have fluctuated quite a bit over the past 8 years. Taking this variability into account, we generated the Compound Annual Growth Rate* (CAGR) figure of 7.80% based on average premium inflation between 2009 to 2017%.

When comparing the CAGR with the 2017 global inflation rate of 7.0%, we see that, while this year's inflation rate has hit a record low (between 2009 to 2017), premiums are still increasing at a similar rate over time.

| IPMI Premium CAGR: 2009 - 2017 | |
|---|---|
| HK | 9.98% |
| China | 8.50% |
| SG | 8.66% |
| Thailand | 7.33% |
| Philippines | 6.92% |
| Indonesia | 7.30% |
| UK | 6.32% |
| Kenya | 6.88% |
| Brazil | 8.12% |
| **World** | **7.80%** |

**Compound Annual Growth Rate, or CAGR for short, refers to the average annual growth rate over a specific period of time, in this case: one year.*

# Insurers

The premium data used for this study is based on international health insurance plans sold by eight major insurers that offer plans in all top IPMI locations featured in this report.

The following reflects two changes which have altered the insurers list from our previous annual report on IPMI inflation:

Allianz Worldwide Care has now rebranded as Allianz Partners.

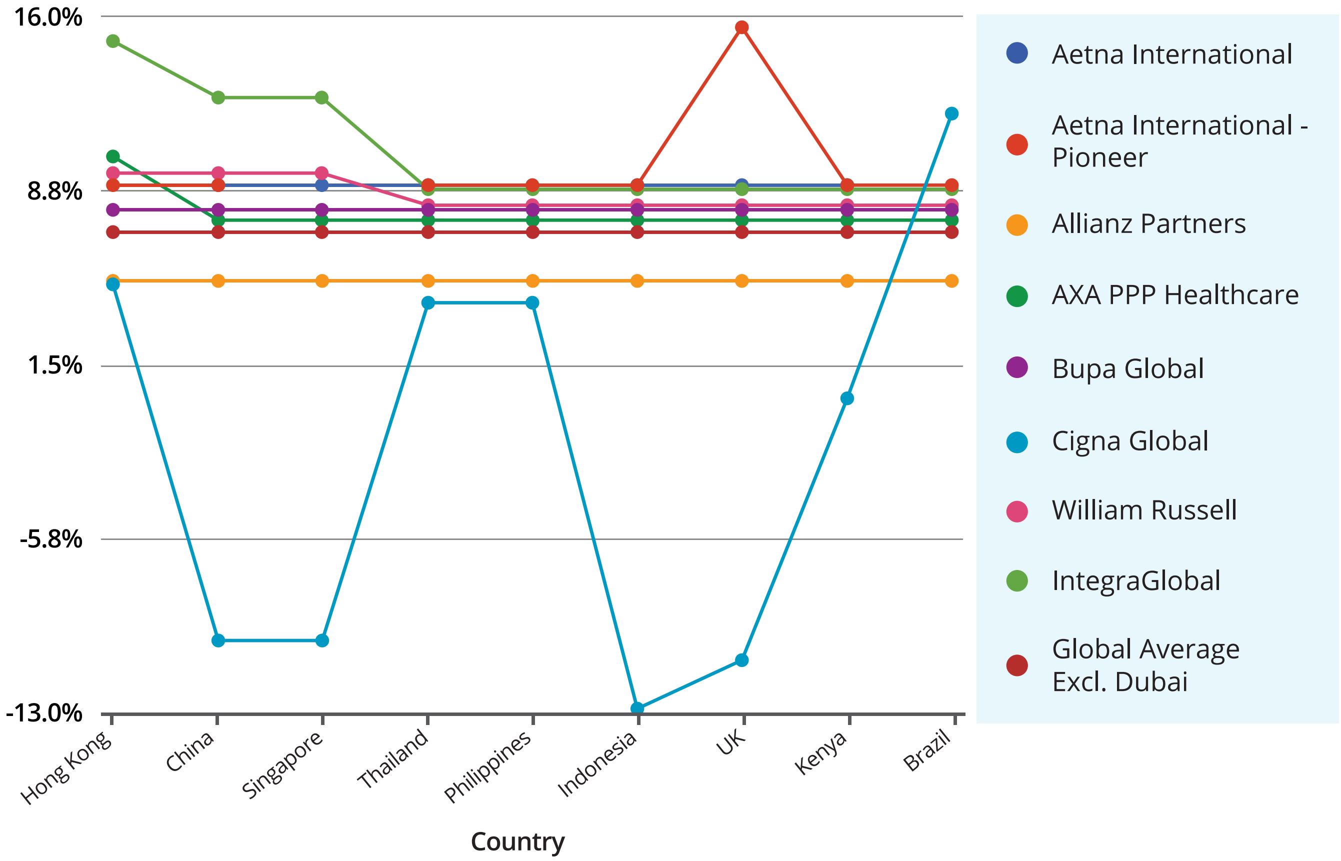
Aetna International's InterGlobal plan has now been renamed as Pioneer.

Besides these rebrandings, the insurers and plans featured in this year's 2018 report remain the same as last year's:

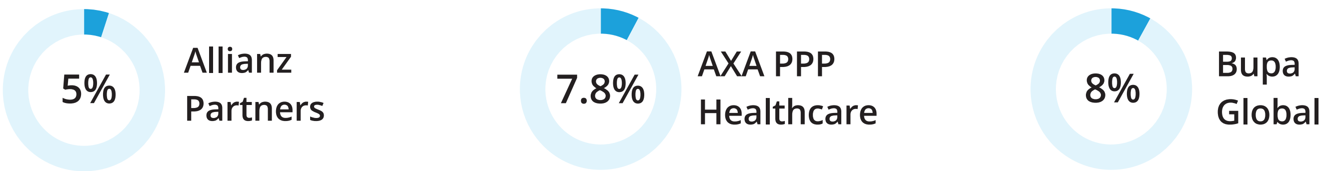
| Insurer | Plan |
| --- | --- |
| Aetna International | International Healthcare Plan |
| Aetna International | Pioneer Plan (formerly InterGlobal) |
| Allianz Partners (formerly Allianz Worldwide Care) | International Healthcare Plans |
| AXA PPP Healthcare | International Health Plan |
| Bupa Global | Global Health Plan |
| Cigna Global | Silver, Gold, and Platinum |
| William Russell Limited | Elite Plan |
| IntegraGlobal | Premier |

# Average inflation by insurer

## Average Inflation by Insurer - 2017




The global average premium inflation rate in 2017 was 7.0%. When looking at premium increases by insurer, **Cigna Global had the lowest average premium increase worldwide - an overall negative figure of -2.0%** for 2017. The next three insurers with the lowest average global inflation rates were:



## Why did Cigna Global have the lowest inflation rate in 2017?

When viewing the above chart, one trend clearly stands out from the rest: Cigna Global saw drastic decreases in its premium inflation rate in 2017 in four key markets: China (-9.9%), Singapore (-9.9%), Indonesia (-12.8%), and UK (-10.8%). The large decreases seen in these countries are intriguing to say the least, especially when taking into account that the average 2017 premium inflation rates in the aforementioned locations were 6.3%, 6.0%, 5.3%, and 6.4%, respectively (see these countries' corresponding sections to learn more). These changes are a good reason why policyholders should review their plan's premium increases annually.

The simple explanation for why Cigna Global's overall inflation rate was much lower in 2017 is because they tweaked their plans in certain locations to be more competitive and in line with market rates.

These adjustments included improved benefits in some sectors, and a reduction in coverage in others. Based on what we've seen in the past, these changes will often have an impact on premiums, leading to increases in some countries, and sometimes drastic decreases in others (as was the case with Cigna Global in 2017; see table to the right).

The relatively large decrease seen in Cigna Global's overall premium inflation rate forms a large part of the explanation as to why the global IPMI inflation rate fell to an all time low in 2017.

If we were to exclude Cigna Global from our premium inflation calculations, the average IPMI inflation rate in 2017 was 8.5%; closer, yet still 0.7 percentage points lower than, the 2016 rate of 9.2%. Please note here that while Cigna Global had the lowest premium inflation, it does not mean they offer the cheapest plans.

| Country | Cigna Global |
|---|---|
| Hong Kong | 4.9% |
| China | -9.9% |
| Singapore | -9.9% |
| Thailand | 4.1% |
| Philippines | 4.1% |
| Indonesia | -12.8% |
| UK | 10.8% |
| Kenya | 0.1% |
| Brazil | 12.0% |
| **Average** | **-2.0%** |

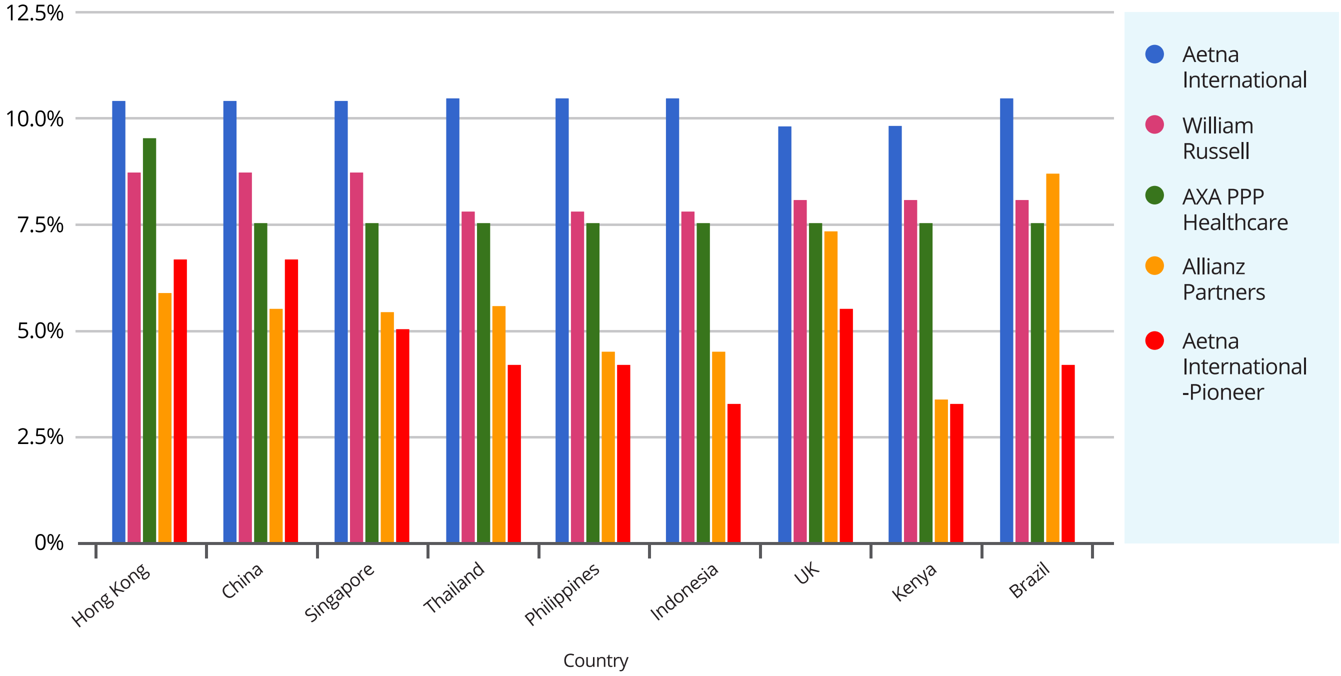
## Which insurer had the highest global inflation rate in 2017?

All other insurers' average global IPMI inflation rate increases ranged between 8.6% and 10.3%. As with last year's findings, IntegraGlobal had the highest average premium inflation rate (10.3%), with Hong Kong (15%), China (12.6%), and Singapore (12.6%) witnessing the highest increases. That being said, the insurer's global inflation rate increased at a significantly lower rate - from 37.77% in 2016 to 10.3% in 2017.

To be clear, while IntegraGlobal posted the highest inflation rate in recent years, it does not necessarily mean that their plans are the most expensive. Rather, when comparing them to the other insurers featured in this report, their average premiums increased by the highest percentage.

# Five-year average inflation by insurer

## Five-Year Average Inflation, by Country: 2013-2017




From the chart above, we see that IPMI premium inflation in countries ranged between 3.3% and 10.5% in the five-year period of 2013-2017. As with previous years, high cost countries like Hong Kong, China, Singapore, and the UK have higher inflation figures, with most providers applying reduced or consistent increases in Thailand, Philippines, Indonesia, and Kenya.

Brazil also saw higher than average overall premium increases in the past five years. We addressed this in our 2015 IPMI inflation report, reporting that one of the main factors driving up premiums in the region is the drastic increase in fraudulent claims.

In fact, a number of insurers have recently pulled out of the market because of this very reason. As providers attempt to recover their losses, inflated premiums make up a large part of their cost recuperation measures. To learn more about the factors driving IPMI inflation in Brazil, go to the Brazil section.

Another key trend to note from 2017's figures is the drop in China's average five-year premium inflation rate compared to 2016. This reflects one of the key findings from our recently released Cost of International Health Insurance Report - 2017 - China experienced a slight decrease in its 2017 ranking position of the most expensive IPMI countries in the world, and also a decrease in the average price of plans. To learn more about IPMI inflation in China, go to the China section.

In the table below, we've included the five-year average global inflation rates for all insurers that we have five years of premium data for. Similar to our 2017 report's rankings, the three insurers with the lowest overall IPMI inflation rates are:

**4.9%** Aetna International (Pioneer)

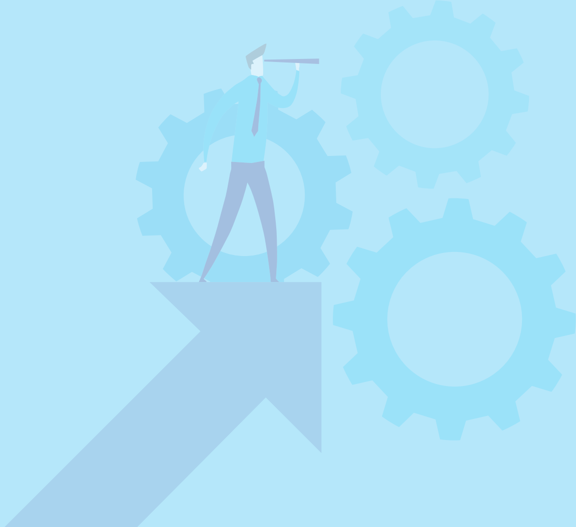
**5.6%** Allianz Partners

**7.8%** AXA PPP Healthcare

| Insurer | Five-year average global inflation rate |
|---|---|
| Aetna International | 10.1% |
| Aetna International (Pioneer)* | 4.9% |
| AXA PPP Healthcare | 7.8% |
| William Russell Limited | 8.4% |
| Allianz Partners (formerly Allianz Worldwide Care) | 5.6% |

**As previously stated, Aetna International's InterGlobal plan has now been rebranded as Pioneer.*

# Inflation Drivers



One interesting change we've made to this year's report is the inclusion of two new key drivers of IPMI inflation, which were identified in our preceding annual report as "emerging" trends. Hence, we have included two subsections in the Inflation Drivers section of this report:

- Four longstanding drivers of international health insurance inflation
- Two new key drivers of international health insurance inflation

## Four longstanding drivers of international health insurance inflation

Globally, Willis Towers Watson projected an average medical trend rate (inflation of medical costs) of 7.8% in 2017. The actual 2017 global trend rate, according to Aon's Global Medical Trend Rates Report, was put at 8.2%. Both the projected and actual medical trend rates in 2017 are, as we've said in previous reports, within one to two percentage points of IPMI inflation. This again proves our long-held belief that the largest driver of IPMI inflation is the cost of healthcare, which in turn is driven by the below longstanding inflation drivers:

## New medical technology

It's widely known that the healthcare industry ranks among the top in terms of demand for new technology. From 3D printing equipment to advanced glucose sensors used to monitor and treat type 2 diabetes, numerous technological developments were made in 2017 with a clear focus on transforming the future of healthcare.

The costs for such technology, however, can be sky high. For instance, due to increased demand for surgical, rehabilitation, and hospital robots, projected spending on medical robots is set to reach USD 2.56 billion by 2021, according to research by Deloitte.

To pay for costly medical equipment, healthcare providers usually pass these costs on to patients through increased medical fees. In fact, 63% of insurers attribute escalating medical costs to the higher cost of new medical technologies. This subsequently leads to inflated health insurance costs.

## An imbalance of health resources

Most developed and developing countries are experiencing an imbalance between the supply and demand for healthcare. For example, new research shows that the US will face a shortage of between 40,800 and 104,900 physicians by 2030.

In addition to the shortage in supply, demand for care is also skyrocketing due to many different reasons, chief among them being the aging population. This has resulted in increased costs of care and claims, which in turn has led to increased premiums.

## Increased compensation

Did you know? Of the USD 4 trillion the world spends on healthcare every year, almost 60 percent is spent on the medical workforce - the doctors, nurses, pharmacists, and other staff who provide care.

Doctors are among one of the highest paid skilled professionals. In the case of Hong Kong, a consultant doctor earns a monthly salary of around HKD 136,550 (USD 17,493), and receives a monthly allowance of around HKD 47,047 (USD 6,027).

These salaries aren't just high, they're also increasing. Explanations are not hard to find. Main reasons behind increasing compensation include ever-increasing medical professional salaries, as well as rising education, licensing, and practicing costs. This in turn also impacts the cost of care and, subsequently, the cost of all health insurance, including international cover.

## Healthcare overutilization

Healthcare overutilization (care provided with a higher volume or cost than is appropriate) is one of the main drivers of escalating medical costs. In fact, anywhere from USD 158 billion to USD 226 billion in losses each year can be attributed to healthcare overutilization.

The trend towards overutilization is especially observable in locations where health insurance is mandatory. For example, in 2020 the demand for hospital beds in Dubai is projected to increase by over 50% from 2015.

Increased utilization leads to increased claims to insurers. This means that, if the number of claims increase in a particular location, you will likely see premiums adjust to take this increase into account.

# Two new key drivers of international health insurance inflation

In this report, we have also identified two additional key drivers of IPMI inflation - factors that were previously listed as “emerging” in our 2017 IPMI inflation report. Based on our extensive research and in-depth knowledge of the industry, recent changes have led to two key trends - changing population dynamics & increasing availability of technology - becoming key insurance inflation drivers.

To learn more about why these drivers have been included, please refer to the Appendix section of the report.

## Changing population dynamics

In last year’s report, we identified changing population dynamics as an emerging trend that will likely have a growing impact on IPMI inflation in the years to come. Developments in 2017 have brought two major population trends to the spotlight:

### Global population aging

There will soon come a time when there are more people aged 65 and above than children aged five and younger. In the UK, more than half of local authorities are projected to have 25% or more of their population aged 65 and over by 2036. In Singapore, one in five people in the city-state will be over the age of 60 by 2030.

The swelling elderly population seen in the vast majority of developing and developed economies is often described as the “silver tsunami” due to its far-reaching and unavoidable nature. Its potential impact on health systems is worrying, especially when considering that those populations are facing an increased prevalence of Noncommunicable Diseases (NCD) such as ischaemic heart disease and stroke.

Health systems are already overburdened today, and this is likely to get worse as aging populations continue to spur demand for healthcare resources and health insurance products. In countries where the silver tsunami is becoming a growing issue, you will undoubtedly see medical costs rise. In illustrating the impact of ageing on health and the cost of care, Aetna International found in their 2017 study that medical spend on members in the 70+ bracket is three times that of members in the 50-59 age bracket.

### Growth in the number of High Net Worth (HNW) and Ultra High Net Worth (UHNW) individuals

In our previous report on IPMI inflation, we noted the increased uptake of high quality international health insurance plans from regional and local High Net Worth (HNW) individuals in the report’s featured locations. 2016 and 2017 continued to see significant increases in the number of not only HNW individuals, but also the number of Ultra High Net Worth (UNHW) individuals - both key markets for IPMI products.

According to Capgemini, HNW wealth will exceed USD 100 trillion by 2025. Asia Pacific, North America, and Europe experienced HNW individual growth rates of 7.5% in 2016 (vs 4.0% in 2015). Brazil, the country that saw the second highest IPMI inflation rate out of all other locations featured in this report, experienced double digit increases in both HNW population and wealth.

And it’s not just HNW individuals that are growing in numbers. The number of super-rich people in the world (UHNW individuals), those with USD 30 million in assets or more, also grew by 3.5% to 226,450 in 2017. It is further expected that there will be an extra 72,550 UHNW individuals by 2021. Asia-Pacific, home to some of the highest average IPMI inflation rate countries, has seen the fastest rate of UHNW individual growth - an increase from 18% to 26% over the past ten years.

# The increasing availability and adoption of non-industry-specific technology

The InsurTech-enabled digital landscape will be key for a not-so-distant future where technology plays an integral role in transforming business models in the industry - models that are more agile and efficient in meeting customers' needs at a reduced cost if implemented correctly.

Throughout 2017, we witnessed a large upsurge in the adoption of technology by providers to contain ever-rising insurance costs, meet growing customer expectations, and penetrate markets that have historically been difficult to access. Pacific Prime firmly believes that this key driver helps explain a large part of the reason why the global IPMI inflation rate dipped in 2017.

## Big data

The big data revolution is truly underway in the health insurance industry. Holding the unique ability of working out future trends by looking at past data, big data is fundamentally changing how insurers price and interact with customers. "There is certainly a trend around data management and reporting. We are certainly seeing employers requesting to have access to holistic group data and information in more real-time", said Robert Lang from Bupa Global.

So, how exactly are insurers leveraging big data? As the analysis becomes more precise and personal, big data allows IPMI providers to better tailor their offerings (e.g. by adding certain benefits that are highly utilized by a given demographic, or decreasing limits on other elements that are less utilized).

Big data also helps insurers identify costlier customer segments (e.g. customers in older age brackets) and charge a higher rate for these particular categories. By better being able to identify claims trends, we are also seeing a growing number of insurers drastically reduce premiums for certain customer groups, while making up for the decrease elsewhere by charging higher premiums for costlier segments.

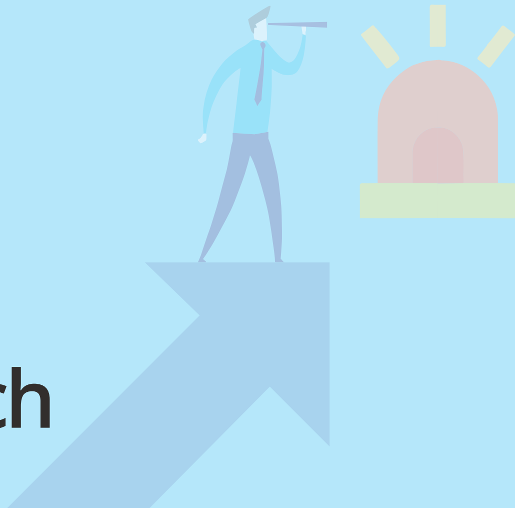
## Online portals

An insurance portal can offer a myriad of unique capabilities targeted at their user bases. A portal can be a go-to place where policyholders can:

- Research and purchase insurance
- Access plan information
- Edit personal and payment information
- View and submit claims
- Pay bills
- Update coverage

To stay competitive amid rising customer expectations, we anticipate that insurers and brokers will continue to invest in their online distribution and portal processes to better streamline policy sales and service.

# Emerging Trends to Watch



In addition to the key drivers, there are two emerging trends that we have identified as having had an impact on premiums in 2017, and most likely 2018 as well:

1. Increased compliance and regulations
2. A more favourable global economy

All of these contending factors have had a part to play in 2017's slightly lower IPMI inflation figure of 7.0%. While it goes without saying that there are more factors at play than the below two trends impacting IPMI, Pacific Prime believes that there's enough potential in these trends to delve into them in this report for further consideration.

## 1 Increased compliance and regulations

In 2017, key regulatory changes in our report's feature locations pervaded the health insurance industry, many of which have a direct or indirect impact on IPMI inflation.

### Mandatory health insurance in Dubai

One example of this is in Dubai, where the final roll-out of mandatory insurance coverage requirements in 2017 meant that all individuals including expats living in the Emirate must hold a minimum level of health cover.

The impact this has had on the IPMI insurance market was wide ranging. For one, insurers who wanted to continue selling plans in Dubai must implement drastic changes to their policies so that they are in line with Dubai Health Authority (DHA) requirements.

As of 2016, IPMI providers in Dubai implemented completely new plans, with different coverage levels. These new plans, coupled with ever-increasing healthcare utilization in the region, forms a large part of the explanation behind the increase in Dubai's inflation rate in 2017 (go to the Dubai section to learn more).

## RBC frameworks

Major regulatory changes are also occurring throughout many locations in Latin America and the Asia Pacific. Most notably, a growing number of regulators are introducing Risk-Based Capital (RBC), which is a risk-based approach to assess capital requirements depending on the size and degree of risk taken by the insurer. For example, Hong Kong is currently laying the groundwork for its RBC framework, which will be implemented in 2018.

A number of countries have also started revisiting their existing RBC frameworks. Singapore, for example, has consulted with the industry to establish their second generation RBC framework. The Monetary Authority of Singapore (MAS) published its third RBC2 framework revisions in 2016.

What do these new regulations mean for the IPMI industry? Ernst & Young foresees a number of implications, some of which include:

- Robust regulatory frameworks will positively influence the financial soundness of the insurance industry. That said, the cost of regulatory compliance is set to increase.
- Better-managed companies may potentially benefit from lower capital requirements, making their products more attractive.
- The convergence of regulations toward a global standard will mean there's less disparity between local and foreign players. Customers may benefit from new products and solutions from both foreign and local insurers.

## 2 A more favorable global economy

In 2016, the majority of the report's feature locations experienced their share of economic challenges. Main contributors to global economic uncertainty in 2016 included the Brexit referendum results, uncertainty about the outcome of the US presidential elections, and falling commodity prices seen in many countries including Indonesia.

2017, however, saw a more favorable economic outlook. Against an improving international backdrop, GDP growth in emerging and developing economies (EMDEs) gained momentum in 2017, strengthening from a "post-crisis" low of 3.5 percent in 2016 to a projected 4.1 percent in 2017, and 4.5 percent in 2018. According to International Monetary Fund (IMF), GDP growth in advanced economies reached 2.2 percent in 2017 - higher than the World Bank's projected GDP growth rate of 1.9 percent.

With a continued strengthening of the economy, insurance companies are experiencing the benefits of robust balance sheets and overall growth. While international health insurance providers continue to struggle with ever-rising claim costs, more favorable operating conditions in 2017 enabled insurers to:

1. **Implement lower premium increases, or even price reductions:** Cigna Global, for example, has implemented price reductions in several locations featured in this report (e.g. UK).

2. **Better predict risk:** A more favorable economy means less uncertainty for insurers, who are more likely able to predict their financial operating environment.

3. **Better focus on improving business practices:** More favorable operating conditions allow insurers to focus on containing premium inflation. For instance, a tactic we've seen adopted by a growing number of insurers is to switch underwriters. Some underwriters may know specific industries better than others, which allows for more accurate premiums. This, in some cases, can even help insurers reduce premiums.

4. **Implement increased efficiencies:** By being able to afford more, some insurers are investing heavily into digital technology (big data, for example), which can allow for unprecedented cost efficiencies if implemented correctly.

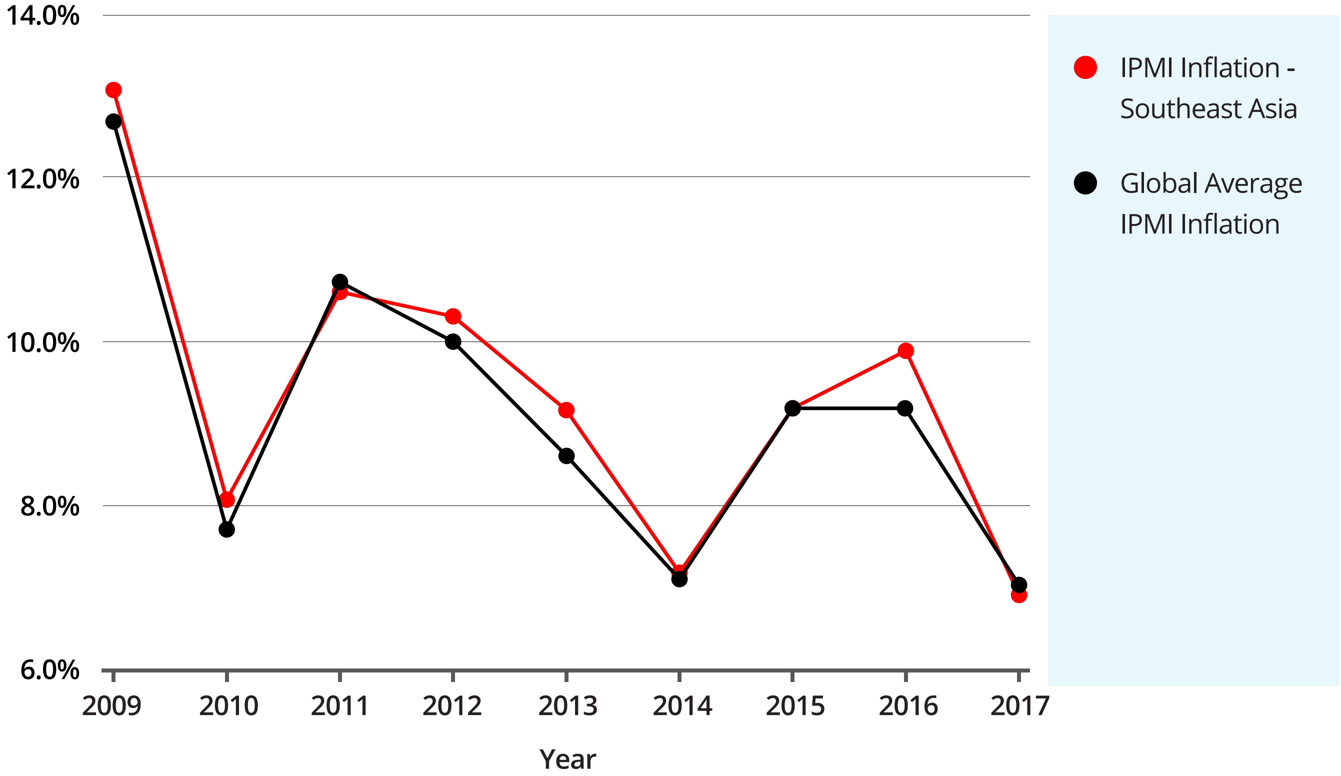
5. **Contain costs:** The above four benefits can, in theory, allow insurers to better contain costs on all fronts of their operations. Beyond solely focusing on premiums, favorable economic conditions can help insurance providers better focus their efforts on optimizing and enhancing coverage in a cost effective manner.

Global IPMI Inflation 2018

# Southeast Asia

# IPMI Inflation in Southeast Asia

## Average IPMI Inflation in Southeast Asia: 2009 - 2017




IPMI Inflation in 2017 was lower, on average, than previous years with the region seeing an average increase in premiums of 6.9%. This is a decent amount lower than 2016's increase of 9.9%.

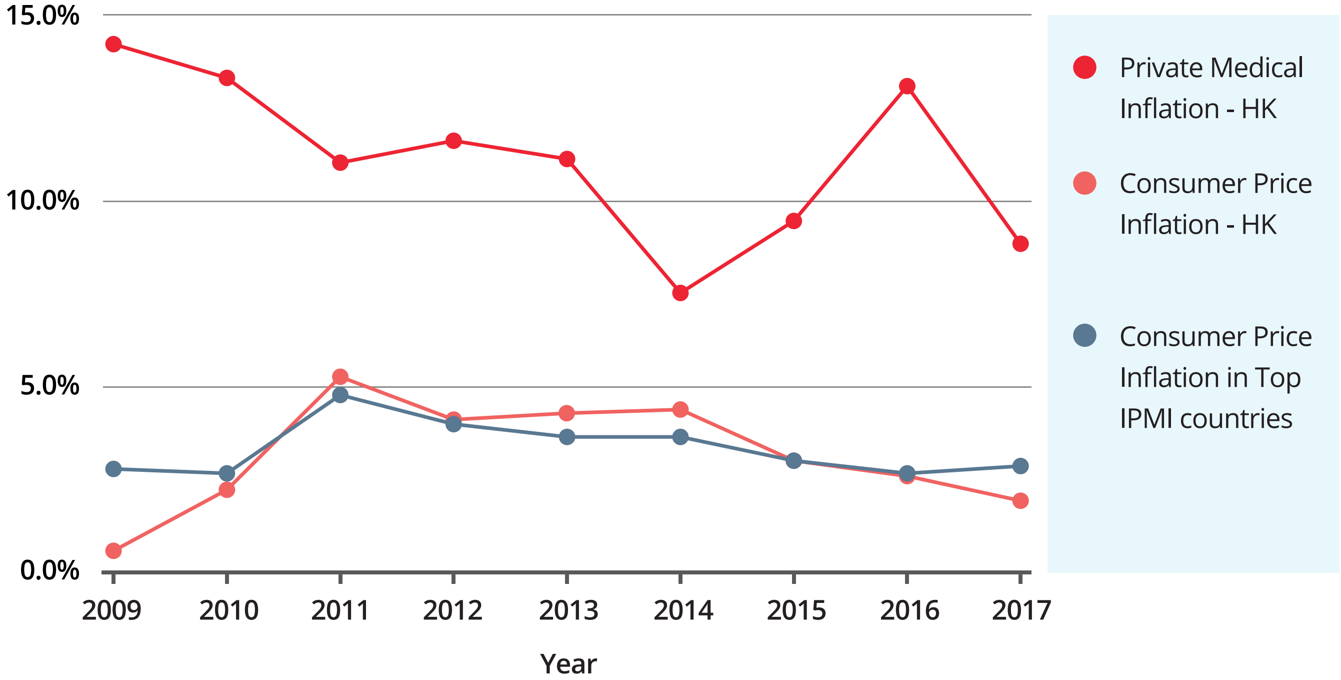
In the last report, we felt that Southeast Asia's IPMI inflation rate was beginning to pull away again from being closely aligned with the worldwide rate, however 2017 has seen it return to global parity.

The previous rise above the global IPMI inflation figure was due to high inflation increases in China, Hong Kong, and Singapore. However, it has been these three countries again that have had the biggest impact on this year's rate movement.

This section covers the average inflation of each of our six locations included in this region, as well as the drivers pushing the IPMI prices shown in our data.

# Inflation in Hong Kong

## Private Medical Insurance Inflation in Hong Kong: 2009 - 2017




Hong Kong continues to have a major influence in terms of our Southeast Asian data. The country was again ranked as the second most expensive location in the world for international private medical insurance, and this year's IPMI data shows that Hong Kong's inflation still tracks much higher than the global average.

The lower IPMI inflation in 2017 is one that mirrors the movement in China and Singapore, two countries we view as being on the more expensive-side of Asian insurance premiums.

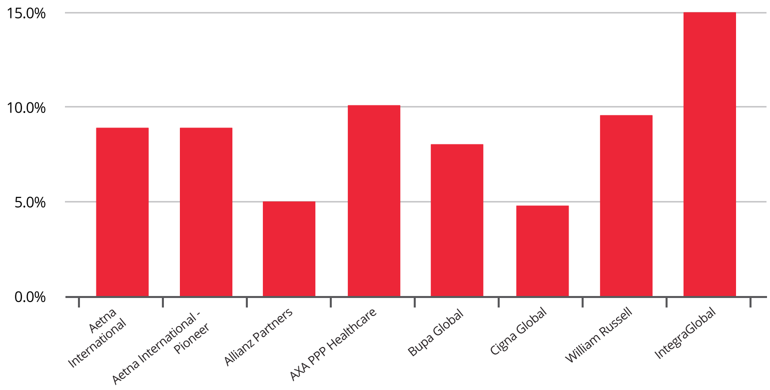
In 2017, Hong Kong recorded an IPMI inflation of 8.8% and a year-on-year Consumer Price Inflation of 2.2%. This continues to illustrate that Hong Kong international private medical insurance prices are not influenced by or linked to consumer prices.

Furthermore, despite the drop in premium inflation in 2017, the CAGR (Compound Annual Growth Rate) of premiums from between 2009 and 2017 was 9.98%, meaning on average, premiums have actually increased over time, despite periodical drops.

## Inflation by insurer in Hong Kong

The movement of inflation rates per insurer in Hong Kong goes a long way in explaining the country's average IPMI inflation decrease. Across the board, most of the eight insurers looked at in our report have seen their IPMI inflation rates decrease; the biggest drops being seen by IntegraGlobal and Cigna Global. Of the three insurers whose inflation rates increased, the movement was minimal by comparison to the rate reductions of the others.

Private Medical Insurance Inflation by Insurer - Hong Kong




## Hong Kong inflation drivers

Making plan adjustments to meet consumer expectations while still remaining competitive and profitable remains a priority for insurers in Hong Kong. In addition to ongoing competition and market influences, the cost of international private medical insurance in Hong Kong continues to be impacted by many of the same drivers seen in previous years:

- **Technology:** The Insurance Authority has repeatedly encouraged insurers and intermediaries to apply insurance technology innovations to improve data analysis, and ease pressure on premiums paid by consumers.

- **Strong demand continues:** Figures from an article posted in mid-2017 found that the number of private or group medical insurance policies in Hong Kong rose by 300,000 in the past year, as the country turned to private health plans to care for an ageing population.

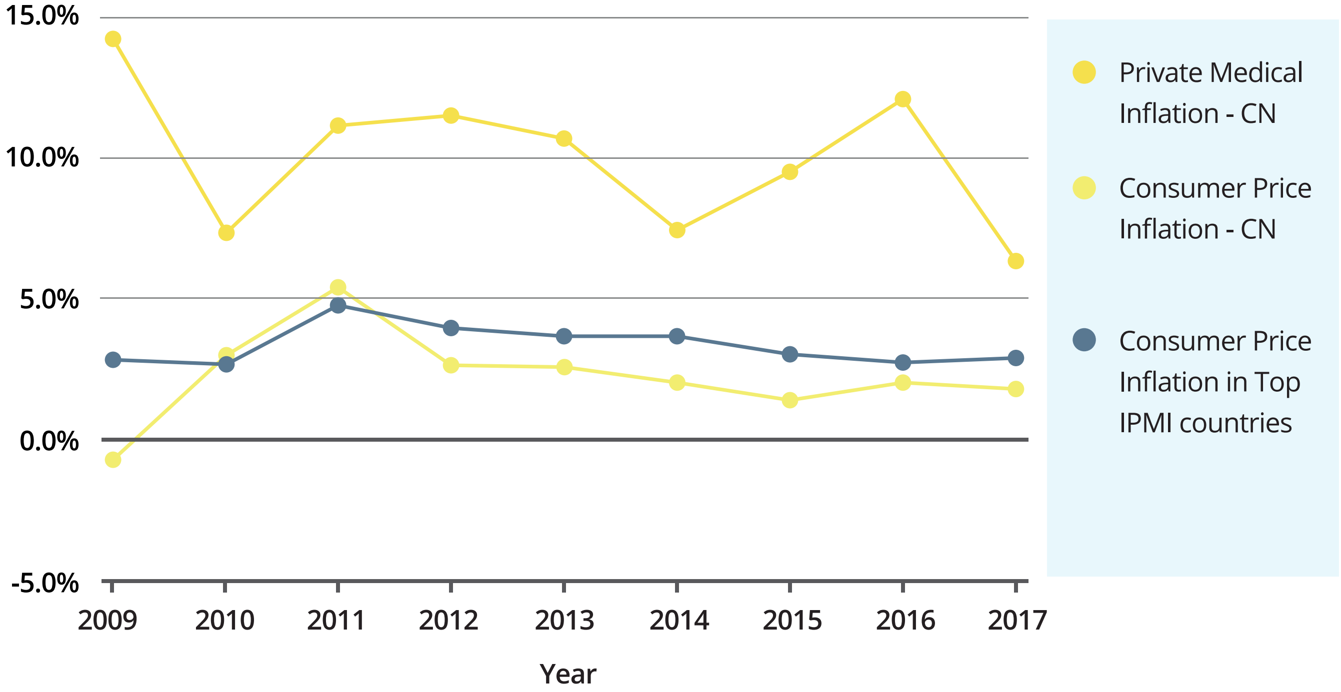
- **Overutilization:** In the same article on rising insurance policies, the Hong Kong Federation of Insurers reiterated that pressure on premium prices could be eased if consumers opted for less expensive day care clinics than being admitted to a hospital ward.

With regards to the two new inflation drivers we discussed earlier in this report, Hong Kong too has seen significant developments in the following areas that look set to play a big part in the cost of insurance in the country moving forward.

- **Regulation and compliance:** June 2017 saw the establishment of the Insurance Authority in Hong Kong to modernize the regulatory infrastructure of the industry, and provide better protection for policyholders. Early actions have included a focus on mandatory re-licensing and annual training.

# Inflation in China

## Private Medical Insurance Inflation in China: 2009 - 2017




China has continued to see a number of strong developments within its insurance sector over the last half decade or more. The country is far from being the most expensive location in Asia for the cost of international health insurance, however, its inflation rate for 2017 was still considerably higher than the global average.

As with our other high-cost Asian locations, China's IPMI inflation rate dipped in 2017. In fact, the rates of China, Hong Kong, and Singapore were previously significantly higher than their neighbors Thailand, Indonesia, and the Philippines. While Hong Kong still remains the country with the highest IPMI inflation rate, both China and Singapore's annual increases have fallen under that of all other Asian locations but Indonesia.

In 2017, the IPMI inflation rate for China was 6.3%, almost half of the 2016 rate of 12.1%. The year-on-year Consumer Price Inflation rate was 1.8%, and it appears that the premiums of international medical insurance in China are not linked to this.

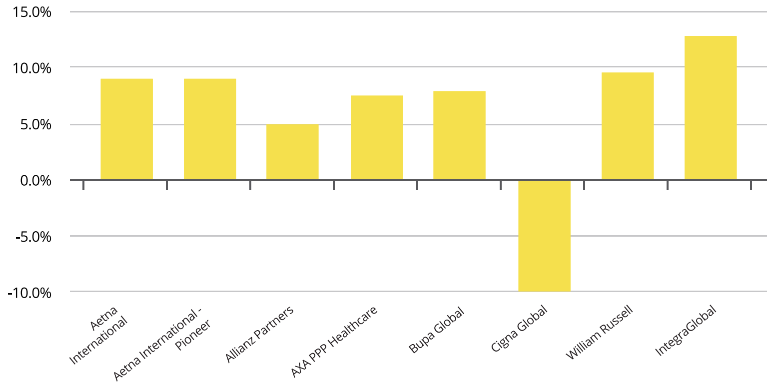
Furthermore, the CAGR (Compound Annual Growth Rate) of premiums in China from between 2009 and 2017 was 8.50%, which means that premiums have seen a general increase in this time-frame.

It should be noted here that many plans in China are now onshore. The plans selected for this report however are the global version, which means there will be a slight difference in inflation between their onshore counterparts. In most cases, we have seen inflation of the onshore versions of the plans used here at between 9% and 12%.

## Inflation by insurer in China

Looking at the specific IPMI inflation data per insurer in China, there are some immediate signs for why the average inflation for the country dropped in 2017. Most notably, the premiums of Cigna Global and IntegraGlobal's international private medical insurance plans made the biggest moves. IntegraGlobal's premium increases were reduced by more than half between 2017 and 2016, while Cigna Global has seen a negative IPMI inflation rate for the year just gone.

Private Medical Insurance Inflation by Insurer - China




On the whole, the offshore versions of the international plans in China saw their IPMI rates reduce. This could be different with their onshore counterparts however, a fact we will consider for the 2019 version of this report.

## China inflation drivers

As one of the most dynamic, young insurance markets in the world, there are a number of interesting factors influencing how and why insurers price their plans the way they do. Many of the global inflation drivers, as well as the China-specific factors from 2016's report, feature here again:

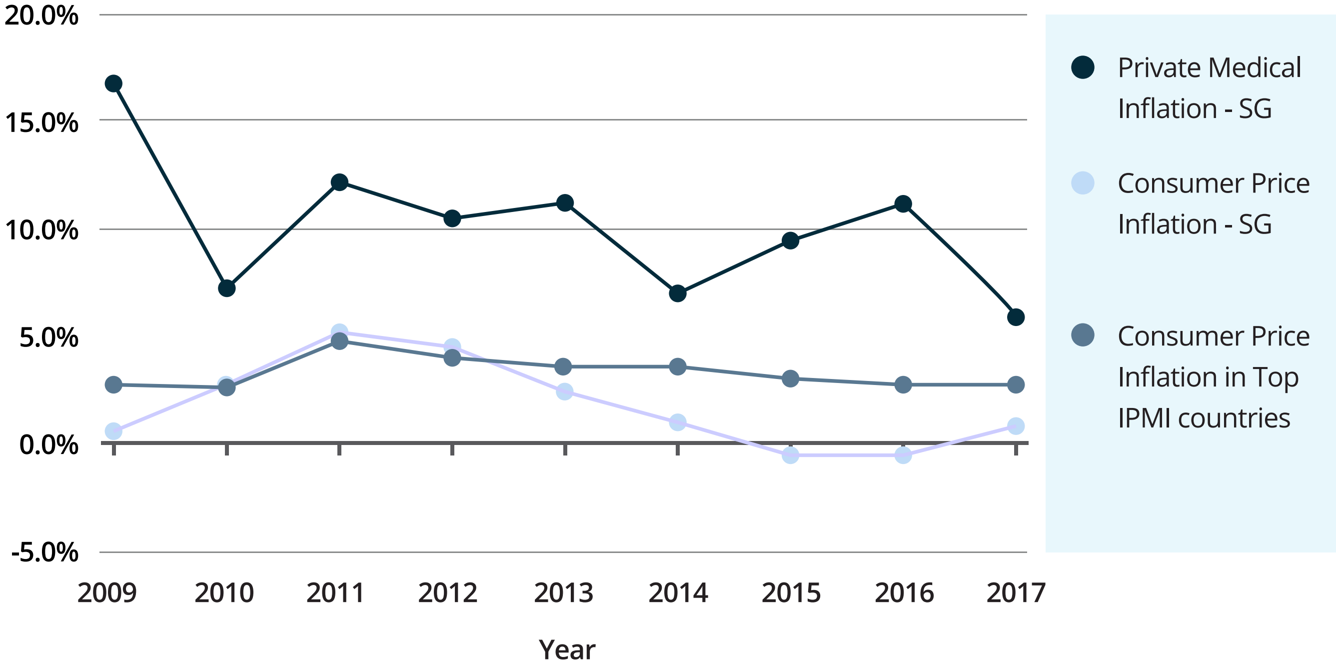
- **Increased competition:** More foreign entities are investing in the Chinese insurance market, with global insurers increasing their local presence on the ground in many insurance categories. While it increases costs to insurers to operate locally, it also opens up greater price and product opportunities for consumers.
- **Imbalance of healthcare resources:** Increasing urbanization of the Chinese population threatens to drive healthcare demand to outpace supply when coupled with the aging population. More primary care and other services are being called for, but medical career opportunities remain best in urban centers.
- **Consumers grow understanding of insurance:** China's economic growth has provided the insurance market with more educated individuals who enjoy higher living standards, however deal with more sedentary lives.

Of our newer inflation drivers, China has its own twist on factors driving the price of inflation for 2018:

- **China's rapidly ageing population:** In 2016, China's elderly population counted more than 200 million. This is expected to rise to 487 million by 2050, placing an ever increasing importance on the capacity of health services, and how the retired fund it.
- **New age of Chinese tech innovation:** Technology and healthcare has become a focus area for many big name players, such as JP Morgan, looking to take advantage of China's shift away from a "copycat" tech center, to a source of leading edge innovation.

# Inflation in Singapore

## Private Medical Insurance Inflation in Singapore: 2009 - 2017




Singapore remains a highly regarded location in terms of advanced medical services and treatments. It is often lauded as being the ASEAN region's premier healthcare destination, where the government's high investment has seen the country boast high doctor and bed ratios, and an enviable medical tourism market. This, among other reasons, is why Singapore jumped up to the third most expensive location in the world for international private medical insurance in 2017.

The fall in the IPMI inflation rate for Singapore in 2017 was not as sharp as its high-cost Asian neighbors, China and Hong Kong. It did, however, fall to be much closer to the figures for the low cost Asian nations, with Thailand and the Philippines posting IPMI inflation rates higher than Singapore for the first time in this report's history. Singapore's premium inflation data in 2017 also dipped below that of the global average.

2017's IPMI inflation rate for Singapore was 6.0%, lower than the global average of 7.3%. The year-on-year Consumer Price Inflation rate rose to 0.9% for 2017, above the -0.5% that was seen in previous years.

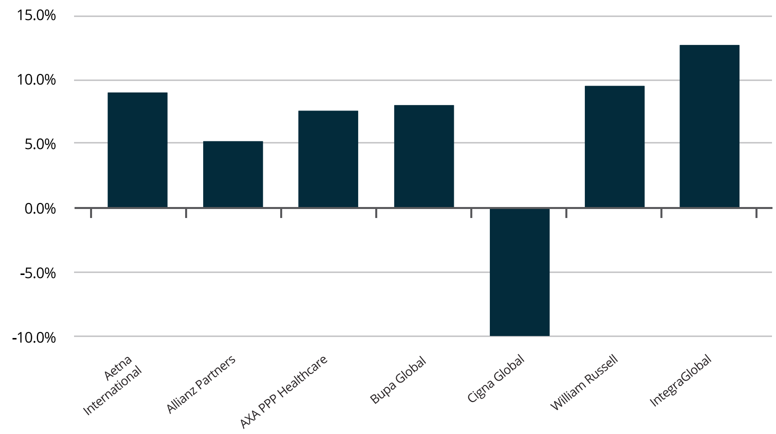
While there was a dip in average premium inflation in 2017, looking at the city's CAGR (Compound Annual Growth Rate) from 2009 to 2017 shows that in the time period, premiums have actually risen at an average of 8.66%.

## Inflation by insurer in Singapore

The most obvious impact on the average inflation of insurers in Singapore, again, comes down to Cigna Global. As mentioned in our earlier Insurers section, Cigna Global plans saw drastic decreases in four key markets - China, Singapore, Indonesia, and the UK. Actual premium prices reduced for the Cigna Global plan holders in these regions, as the insurance giant sought to be more competitive and in line with local market rates.

Putting Cigna Global aside, most of the insurers in Singapore have seen relatively low global IPMI premium inflation in recent years. We believe that this is largely due to a number of insurers launching new onshore plans in the past few years. This is further impacted by a rather soft market - there's a trend in companies hiring fewer foreigners. This means lower demand for globally-oriented IPMI products and therefore generally lower premium increases. Due to the increasing number of onshore products, we will look into tweaking the next IPMI inflation report to include these products.

Private Medical Insurance Inflation by Insurer - Singapore




This year, four of the seven insurers saw inflation rise, though they were all modest in their increase.

## Singapore inflation drivers

Whilst internal competition continues to influence the price of international private medical insurance premiums in the Lion City, there are continuing drivers of inflation that maintain an impact on consumer costs this year:

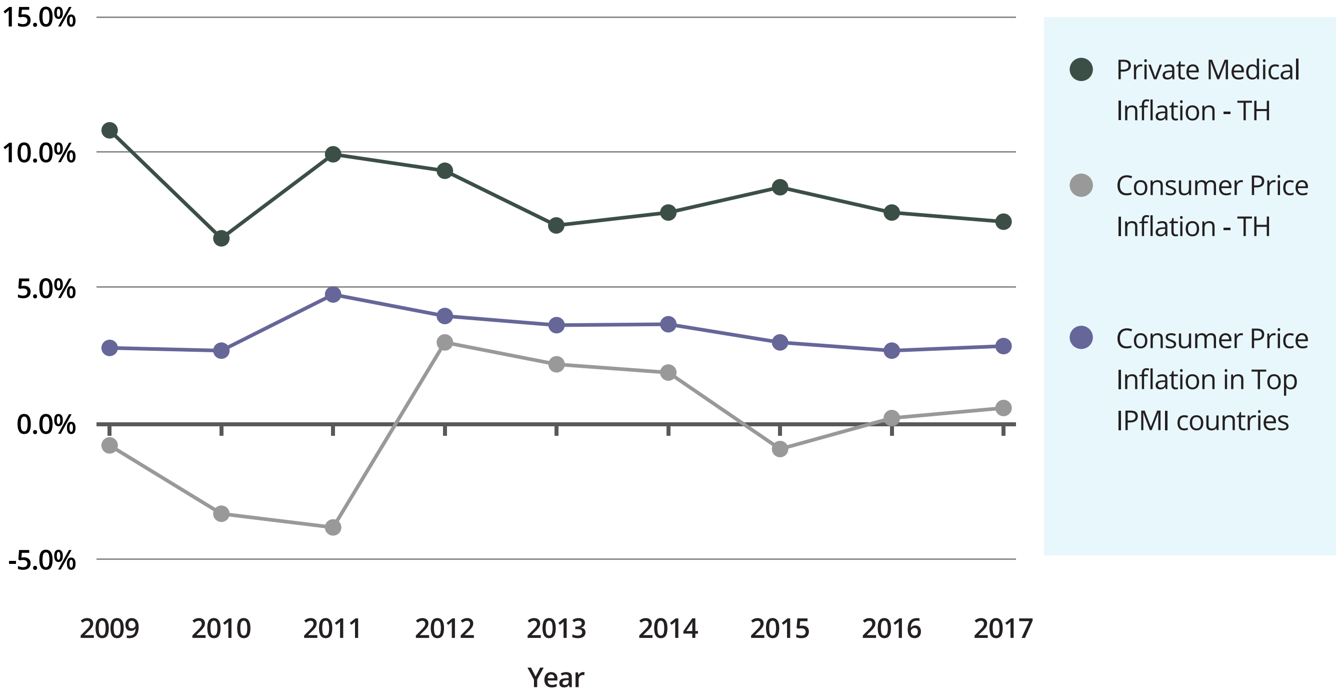
- **Physician compensation controls:** The Ministry of Health has announced that it will introduce a "professional fee benchmark" from 2018 onwards to help manage and control the costs consumers face from physicians.
- **New medical technology:** The Singapore government is continuing its SGD 13 billion R&D plan with a major emphasis placed on health and biomedical science innovation.

With an established and highly developed healthcare system, Singapore continues to drive targeted approaches with regards to insurance and medical cost controls. Mirroring our emerging drivers, the country looks set to be impacted by the following new developments:

- **Government intervention:** In addition to the professional fee benchmark, the Ministry of Health has signaled intentions to work better with the insurance industry in order to keep premiums sustainable whilst maintaining rigorous investment in the health sector. This materialized in the 2018/2019 budget which announced the GST in Singapore will rise from 7% to 9%. Funds from this increase will be partly used by the government to partially fund the increasing cost of medical care.
- **Expatriate population changes:** For the second year in a row, Hong Kong has beaten Singapore in a global attractiveness ranking for global talent. As the prime target market for international private medical plans, this continuing trend could impact prices as the market shrinks.

# Inflation in Thailand

## Private Medical Insurance Inflation in Thailand: 2009 - 2017




Thailand's emergence as an "ASEAN country to watch" when it comes to healthcare has been fairly constant for some time now. As the country continues to invest in its health sector to attract a larger stake of the medical tourism market, it has challenged neighbors like Singapore on grounds of value in health services. Its rising treatment and facility standards are catching up to more developed nations, while still remaining relatively inexpensive by comparison.

In 2017, the IPMI inflation rate in Thailand held somewhat steady, reducing only slightly on the figure from 2016. Unlike its more expensive neighbors (China, Hong Kong, and Singapore), Thailand did not see the drastic drop in the IPMI inflation rate, and its increase remains above the Consumer Price Inflation rate.

In relation to its previous "low-cost country" grouping from previous years, Thailand has maintained a similar trend to the Philippines.

Thailand's IPMI inflation rate for 2017 was 7.4%; 0.4% lower than it was in 2016. It was similar to the global IPMI inflation average, 7.3%, and was significantly higher than the country's Consumer Price Inflation rate of 0.6%. This indicates that IPMI inflation remains unaffected by the country's Consumer Price Inflation.

Furthermore, when looking at the CAGR (Compound Annual Growth Rate) from 2009 to 2017, IPMI premiums in Thailand actually increased at an average of 7.33% per annum in that time frame. It is fair to say that barring any drastic changes, this increase will continue.

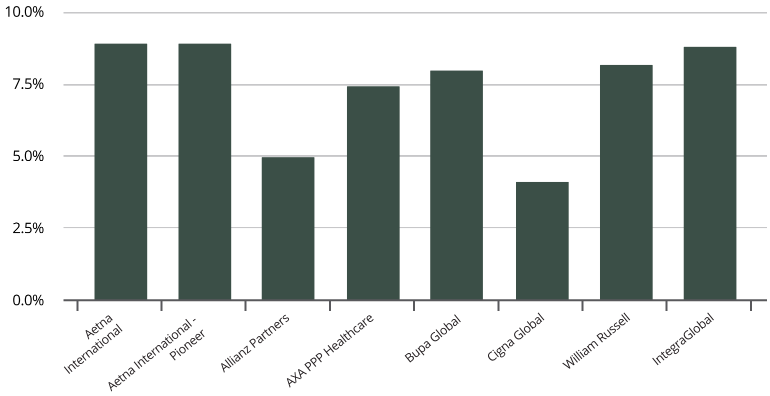
## Inflation by insurer in Thailand

Premium inflation in Thailand has been nothing short of dynamic. Compared with 2016, three out of the eight insurers had reduced IPMI inflation rates in 2017. Most insurers that saw an increase in their inflation rates saw only modest movement, while - across the board - 2017 saw all IPMI inflation figures drop under 10%. Unlike in Singapore, China, and Hong Kong, Thailand did not see its Cigna Global plans reduce to a negative IPMI inflation rate, which has helped its average IPMI inflation remain steady.

One interesting change from previous years is that Cigna Global's negative IPMI rate was seen in Indonesia, but not Thailand or the Philippines. This is significant as our previous reports have often considered Thailand, the Philippines, and Indonesia to have been grouped together for pricing purposes by our focus insurers.

Even in light of this, Indonesia's insurers outside of Cigna Global returned identical IPMI figures to Thailand and Philippines, indicating their grouping as a low-cost region may still remain.

Private Medical Insurance Inflation by Insurer - Thailand




## Thailand inflation drivers

Thailand insurance prices have been impacted by a number of new and familiar drivers this year.

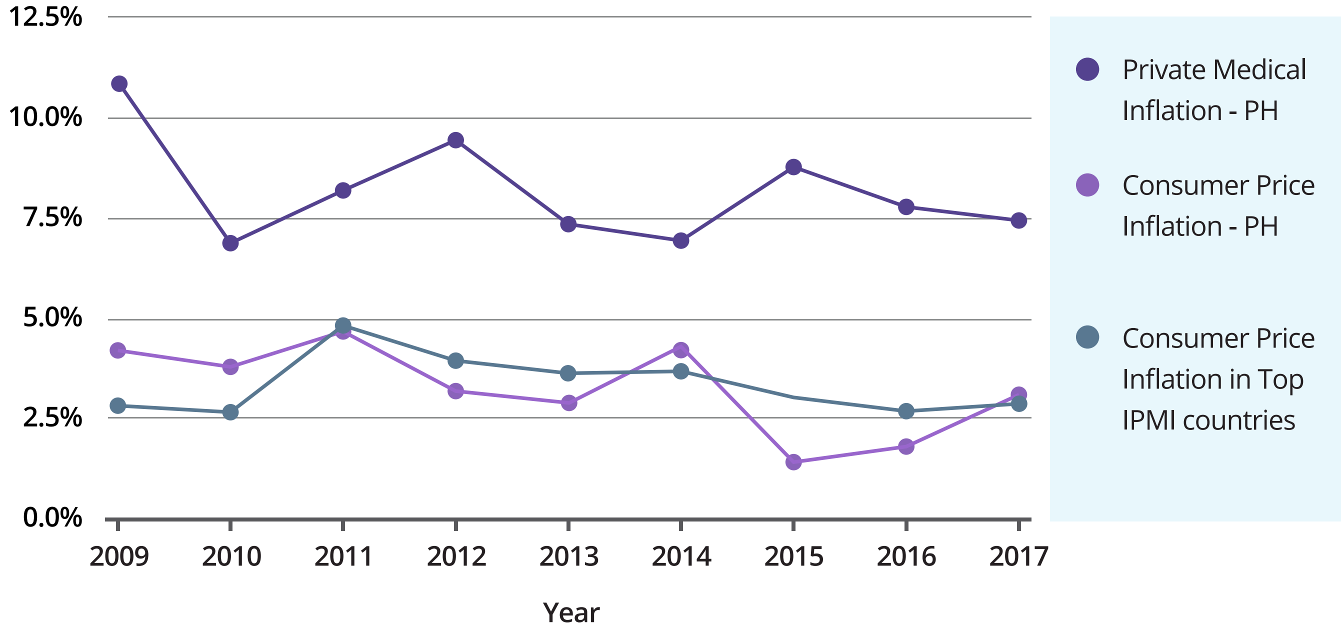
- **Imbalance of resources:** In a country that prides itself on the standard of its medical industry, the ratio of doctors per 1,000 population was as little as 0.39 in 2010. This can indicate the country is still struggling to place its resources in areas of needs versus areas of prioritized focus.
- **Healthcare overuse:** The number of people using hospitals for minor health problems, such as a common cold or minor case of diarrhea, has increased since the introduction of low-cost healthcare in Thailand. This has stretched capacity further and, in some cases, resulted in bankruptcy and insolvency.
- **Slow tech sector:** In a study of digital readiness, Thailand has been found to suffer a talent shortage, producing fewer digital products, and a lack of policy support to promote innovation. Out of 11 Asia-Pacific nations, Thailand was ranked 10th overall as a "digital nation".

Of our newly identified drivers, Thailand's IPMI inflation has seen the following have some emerging influence on costs:

- **Economic slowdown:** 2016's economic woes for Thailand continued in 2017 as the country turned to face its new future, with the ruling military junta hoping to boost productivity with big-ticket projects aimed at improving its infrastructure.

# Inflation in the Philippines

## Private Medical Insurance Inflation in Philippines: 2009 - 2017




There were no major changes to the healthcare system of the Philippines in 2017, with the administration of its health sector continuing under a mixed private-public system. While the private sector hosts all of the hallmarks of a for-profit healthcare model (higher prices, quality, foreign-trained professionals), the cost of care is still relatively affordable compared to our other IPMI locations. As a result, the country has continued to drive a higher presence in the ASEAN medical tourism market.

The IPMI inflation rate in the Philippines in 2017 was 7.4%. When compared to previous years, it is clear to see that premiums in 2017 continued the trend of a slight decrease.

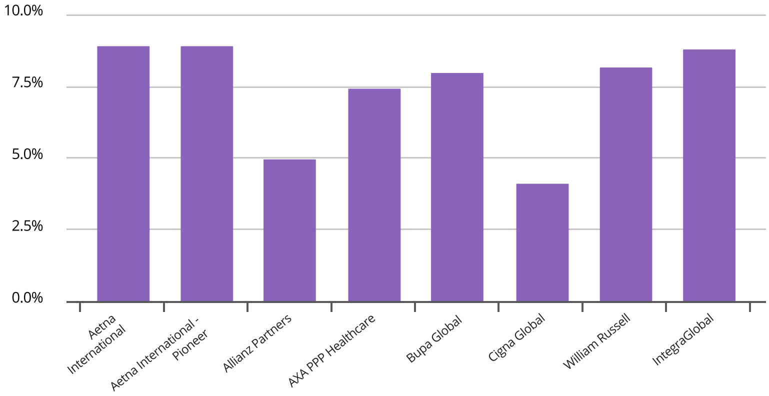
The Consumer Price Inflation rate on the other hand, rose for the second year in a row, up to 3.1% this year from 1.8% in 2016. This indicates that premiums in the country are not related to CPI, and therefore not overly influenced by it.

We can also report that between 2009 and 2017 the CAGR (Compound Annual Growth Rate) in the Philippines was 6.92%. This means that on average, premiums increased by this amount each year. This percentage is inline with previous reports.

## Inflation by insurer in the Philippines

The movement of insurers in the Philippines are exactly the same as the insurer-specific IPMI rates for the same players in Thailand, indicating that the two remain linked by pricing strategies. The one anomaly to this is Indonesia; previously considered part of the "low cost" countries in our previous reports, the data for Indonesia shows that Cigna Global again has had an impact on that country's specific IPMI data. That said, the remaining insurers rate increases are exactly the same as those in the Philippines, indicating that the low-cost group-pricing may still exist.

Private Medical Insurance Inflation by Insurer - Philippines




Like Thailand, three out of the eight insurers saw an IPMI inflation rate decrease overall, while those with a rates rise saw only modest movement. Again, all insurers in 2017 had IPMI inflation rates under 10% - a first in a while.

## Philippines inflation drivers

While the group-pricing of insurers for the region continues to affect Thailand, Indonesia, and the Philippines, the following local factors still have an impact on driving IPMI premium prices:

- **Imbalance of health resources:** An increase in wealth is driving a rise in healthcare demand, causing healthcare providers to demand more in fees and charges to cope with upgrading and expanding infrastructure to meet future health needs. This rise in demand is being exacerbated by the country's desire for universal healthcare coverage.

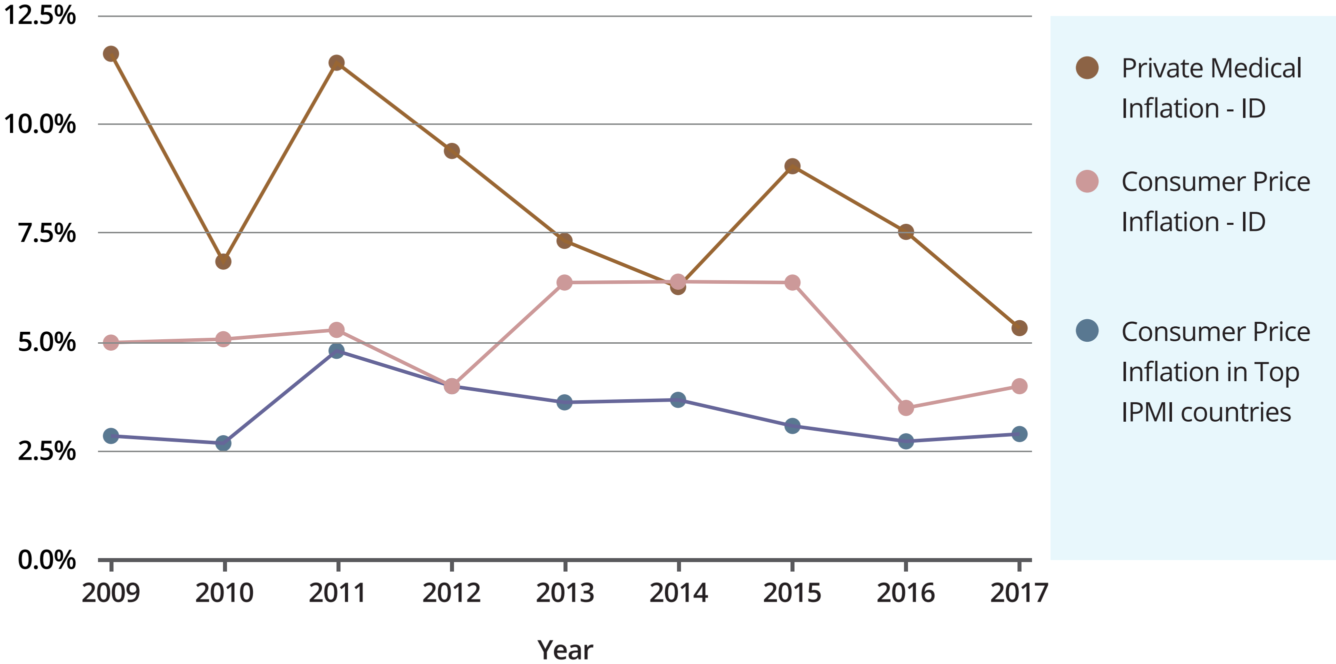
Of our emerging drivers, the Philippines is seeing potential impacts on the horizon from the following:

- **Economic impacts:** The local economy saw a 6.9% growth in the third quarter of 2017, with businesses and the middle class seeing a rise in wealth. This had a direct impact on Consumer Price Inflation rates, while also resulting in more disposable income with which to purchase medical service and health insurance.

- **Increasing investment in medical technology:** Many major insurance players, including Allianz, have signalled greater intentions for the Filipino healthcare market, with digital technology a major focus for the delivery of healthcare protection.

# Inflation in Indonesia

## Private Medical Insurance Inflation in Indonesia: 2009 - 2017




Decidedly one of the low-cost countries in our report, Indonesia is characteristically a highly affordable location to receive medical care, however the standards of such are likely the lowest out of all of our Southeast Asia-focused countries. A continued lack of healthcare spending has resulted in medical facilities being unable to modernize equipment or train staff in cutting edge treatments and procedures. This is a significant challenge when considering Indonesia's push for universal healthcare since 2014 - of which only 70% of the local population are currently included.

2017's IPMI inflation rate was 5.3%, the lowest of the countries included in Southeast Asia. Furthermore, 2017 was the second year in a row in which Indonesia's inflation rate fell by over one point, and the lowest IPMI inflation rate recorded for the country since we started keeping track in 2009.

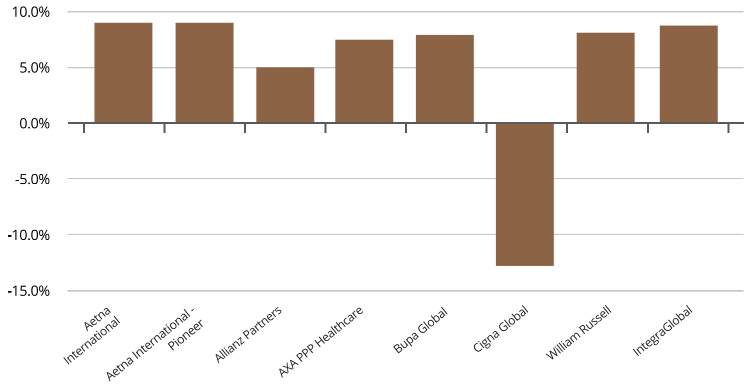
While premium inflation fell in 2017, the CAGR (Compound Annual Growth Rate) of premiums in the country from between 2009 and 2017 was 7.30%. This means that plan premiums are still increasing despite a downward trend.

Indonesia's overall economy has picked up considerable steam over the past year, with investment growth increasing, and monetary inflation falling. While Indonesia's Consumer Price Inflation rate of 3.1% is lower than its IPMI inflation, it is still 0.2% higher than the global CPI inflation figure of top IPMI countries and more than a whole percent higher than it was the year before.

## Inflation by insurer in Indonesia

As far as individual insurers in the Indonesian market are concerned, the most obvious factor on the country-wide IPMI rate is again the Cigna Global negative rate. In fact, this is significant for Indonesia as it was the only country of the three “low cost” Asian nations (Thailand and the Philippines being the others) to have been impacted by Cigna Global’s reduction of IPMI insurance premiums.

Private Medical Insurance Inflation by Insurer - Indonesia




The other insurers offering plans in Indonesia have, like previous years, followed identical IPMI inflation increases as the plans offered in Thailand and the Philippines, indicating that the three countries remain linked by a regional pricing strategy.

## Indonesia inflation drivers

In addition to the impact Cigna Global pricing had on inflation, the following IPMI driver is continuing to impact the cost of insurance and medical care in Indonesia:

- **Changing population demographics:** The trend from 2016 has continued, with a large number of foreign workers leaving Indonesia as China slows imports from the country. With the exit of part of the IPMI consumer market, it may become more important to focus on attracting local high networth individuals who have international mobility.

The emerging driver we expect to have a role in shaping Indonesia’s IPMI rates in the future is:

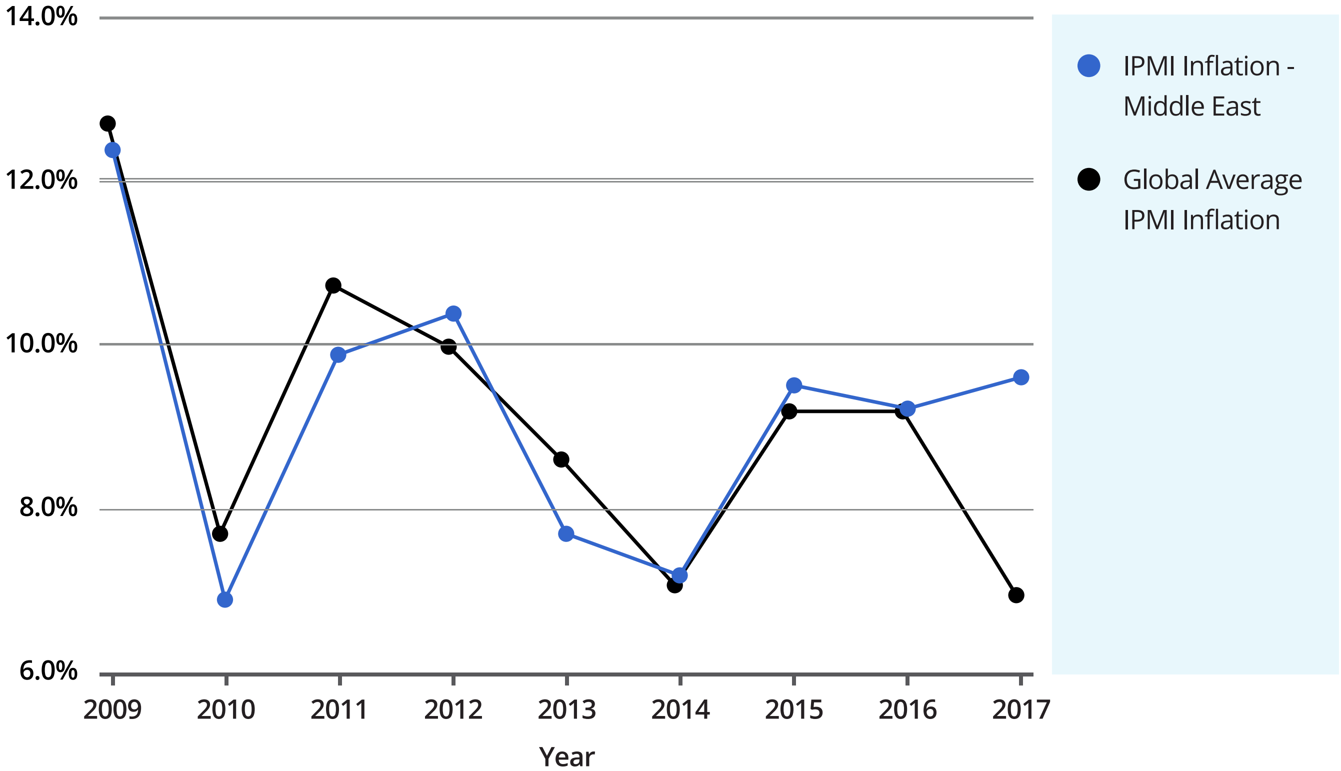
- **Increased investment and government intervention:** The Indonesian government has confirmed its commitment to providing universal healthcare to its people, whilst investing in measures to improve service delivery, fraud prevention, and cost sharing systems with the health sector.

Global IPMI Inflation 2018

# Middle East

# IPMI Inflation in the Middle East

## Average IPMI Inflation in the Middle East: 2009 - 2017



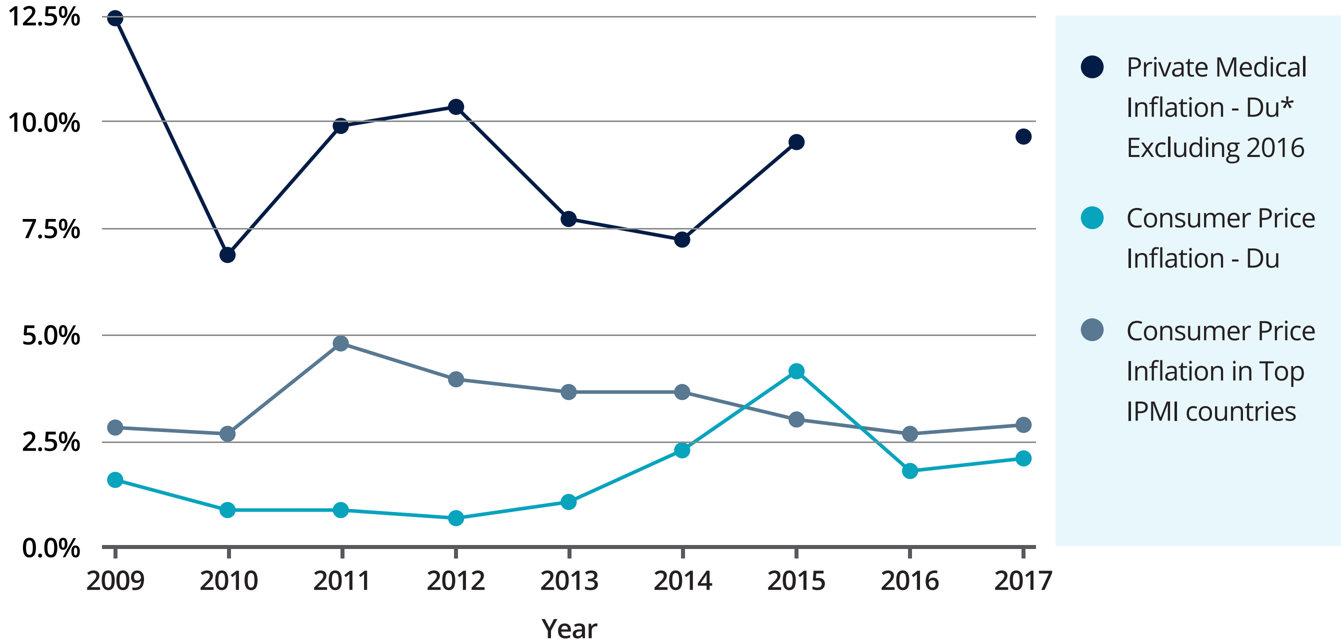

The IPMI inflation data for the Middle East this year has seen a modest jump above the global average. Inflation increased from 9.2% in 2016 to 9.6%, above the global figure of 7.0%. This is significant as the IPMI rates in the Middle East, derived from our Dubai data, generally tracked fairly closely to the global average historically.

Last year, the final implementation of mandatory health insurance reforms in Dubai was a monumental factor in the rates shown to the Middle East. This year, we're beginning to see the impact these regulatory changes have had on the IPMI market. For this reason, we maintain our belief in the Middle East, and namely Dubai, being an important market to follow as insurers and consumers come to terms with these laws.

While the Middle East IPMI inflation data is based on Dubai, the 2016 figure was estimated to be similar to that of the global rate. The reason for the estimation, as explained last year, is due to the number of changes the Dubai market experienced. The Dubai graph, as shown in its own section, will have the 2016 data missing.

# Inflation in Dubai

## Private Medical Insurance Inflation in Dubai: 2009 - 2017




Dubai's IPMI inflation, as well as the Emirate's own Consumer Price Inflation, has historically tracked much higher than the global average. The country has invested heavily in updating and modernizing its infrastructure, and the health sector itself has seen huge benefits over the years.

With the adoption of mandatory health insurance for all residents, Dubai has become one of the most influential locations in terms of IPMI. The concern here, however, is that due to regulations, plans sold in Dubai must cover certain conditions that plans elsewhere do not cover. Namely, maternity and pre-existing conditions and the fact that all plans must be approved by the DHA.

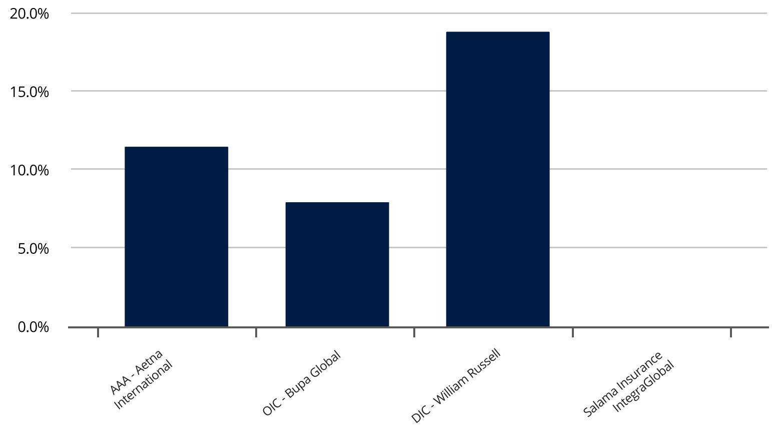
Due to this, a number of insurers are not currently offering compliant plans in the Emirate. Of the insurers included in this report, there are four who do offer compliant plans. In order to develop inflation figures for Dubai we have taken the closest possible compliant plans to those used in other locations. These differences however, have led us to discount Dubai from the overall global average inflation calculations.

Due to the new plans, we do not have inflation data for 2016, therefore it is not reflected in the graph above. For 2017, we can report that IPMI inflation in Dubai was 9.6%, well above Dubai's own Consumer Price Inflation of 2.1%.

## Inflation by insurer in Dubai

As might be expected, the inflation figures by insurer in Dubai vary greatly. Interestingly, Dubai Insurance Company - William Russell's compliant plan in Dubai saw the highest inflation rate across all of our focus locations. This does not necessarily mean that the insurer had the highest premiums in the region however. It more likely indicates that their previous pricing was much lower than the local market. The increase in 2017 could be attributed to a repositioning of their premium to be more competitive.

Private Medical Insurance Inflation by Insurer - Dubai




Salama Insurance IntegraGlobal, who has the highest overall IPMI insurer increase globally, made no change to their premium prices in Dubai for 2017. Again, this may be due to the insurer feeling comfortable with their previous years' pricing strategy, and a decision to see how their competitors move and react to the recent health insurance changes in Dubai.

## Dubai inflation drivers

Locally, we have seen an increased demand for health services due to the increase in the number of residents covered. This will result in higher premiums. That said, there are additional factors influencing IPMI rated, such as:

- **Imbalance of resources:** For Dubai in particular, diabetes is a significant, developing issue that threatens to put pressure on existing health systems. As the sector and its capabilities invest to cope with the growing problem, expect medical costs across the board to rise too - and premiums with them.

Of our new emerging drivers, changing population dynamics appear to be potential influencers of IPMI premiums in the future:

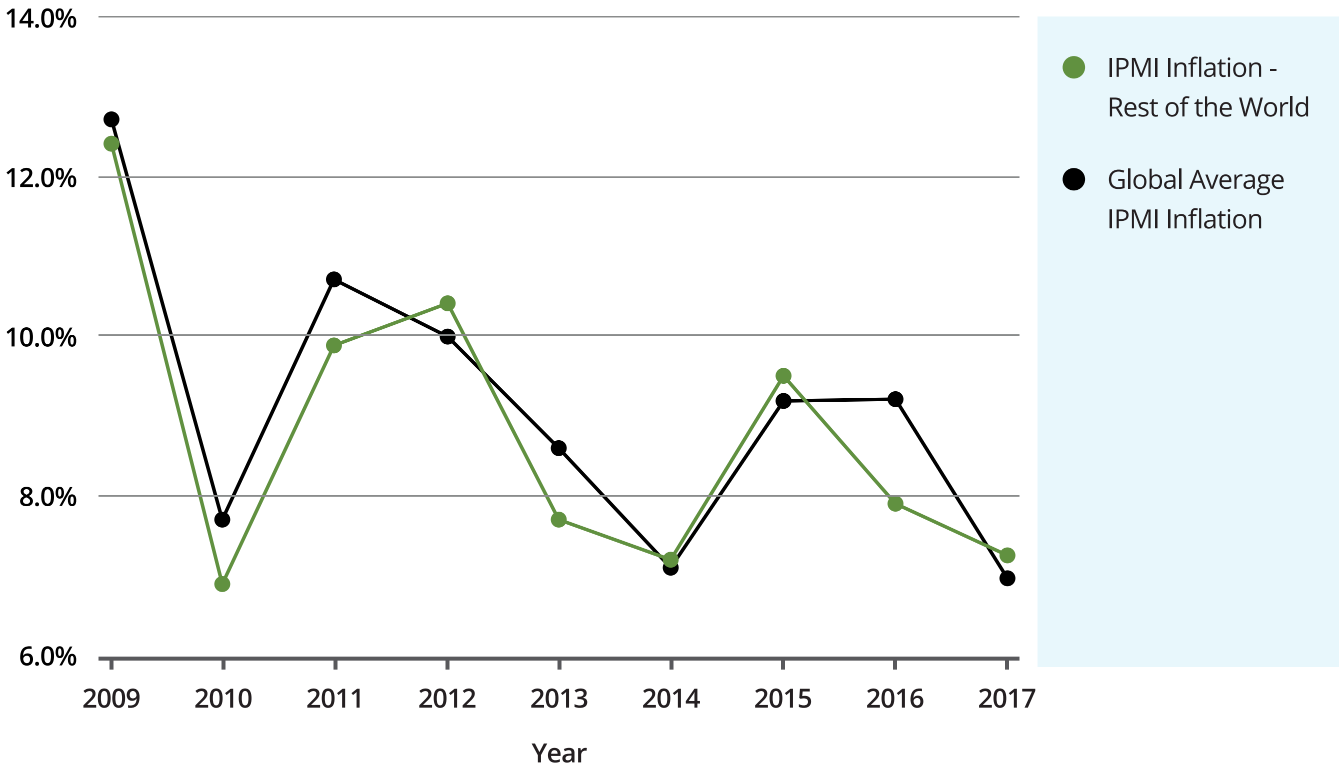
- **Economic impacts:** The low cost of oil, in combination with more regional instability, has resulted in slowed economic performance for the Middle East, forcing many corporations and businesses to downsize or relocate away. As a significant expat location, lower numbers of foreign workers means a reduced market for IPMI insurers.

Global IPMI Inflation 2018

# Rest of the World

# IPMI Inflation in the Rest of the World

## Average IPMI Inflation for the Rest of the World: 2009 - 2017

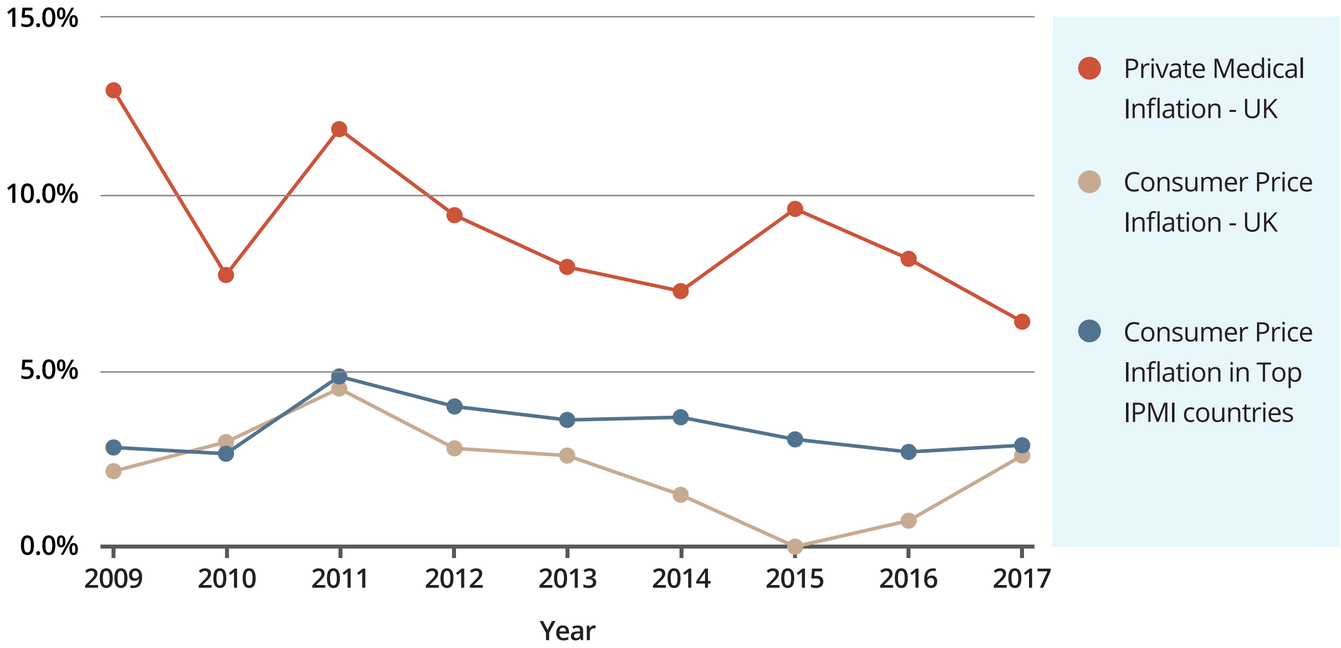



IPMI inflation for the Rest of the World (ROW) was marginally lower in 2017; 7.3% compared with 7.9% in 2016. Across Kenya and Brazil, our IPMI inflation data has shown little movement. Kenya's inflation reduced 0.1 points from 2016 to 2017, and Brazil's rose a mere 0.1 points. The United Kingdom, however, saw IPMI inflation in 2017 dropped from 8.2% down to 6.4%. Nevertheless, overall average inflation in the ROW remains modest.

This section covers, as previous reports have, the average inflation and drivers of change for the United Kingdom, Kenya, and Brazil. The overall trends with IPMI in the ROW follow that of the global average trend, however it does so more erratically than the average for Southeast Asia.

# Inflation in the United Kingdom

## Private Medical Insurance Inflation in the UK: 2009 - 2017




The IPMI rate in the UK continues to be impacted by socio-political factors as well as the traditional drivers of medical costs. In 2016, we expected Brexit to play a role in influencing the cost of IPMI products in the UK. Indeed, we have seen it impact prices on two fronts; Consumer Price Inflation in 2017 was at an all time high following an economic stumble, and the Leave vote result pushed a record number of EU residents to leave. Internal political struggles related to the National Health System also remain.

In 2017, the IPMI inflation rate in the UK was 6.4%. This is down from 8.2% in 2016, the second year in a row that the rate fell, and the lowest inflation rate we've recorded since we began tracking the average IPMI inflation in 2009.

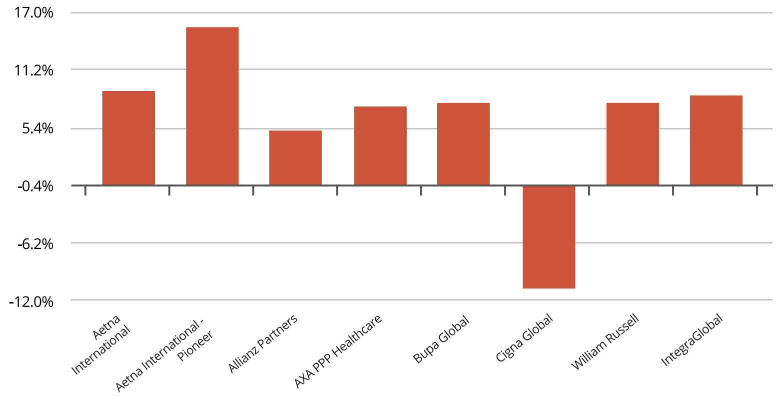
Looking at the CAGR (Compound Annual Growth Rate) for the country from 2009 - 2017 we can report that premiums grew at an average of 6.32% per annum. This indicates moderate premium growth.

The Consumer Price Inflation figure for 2017 was 2.6%, which was 0.7 points higher than the year before. It represents the second year in a row that the CPI rate increased, showing that the IPMI and CPI are heading in opposite directions. That said, the IPMI rate is still much higher than the Consumer Price Inflation.

## Inflation by insurer in the United Kingdom

A key standout here, again, is that Cigna Global's negative IPMI inflation affected the UK. Beyond that, the pricing of international private medical insurance plans saw some significant movements in 2017. In particular, IntegraGlobal reduced their IPMI inflation rate by 3.96 percentage points (12.76% in 2016 to 8.8% this year). Aetna International - (InterGlobal) also saw a significant rate movement, jumping from 7.5% in 2016 to an increase of 15.5% in 2017.

Private Medical Insurance Inflation by Insurer - the UK




Overall, five of the insurers in this report saw inflation increases in the UK. If not for the Cigna Global negative rate, it might well be that the UK's average IPMI inflation rate for the year could have been much higher than this report has shown.

## United Kingdom's IPMI inflation drivers

As already mentioned, we believe there are a number of key drivers influencing the United Kingdom's IPMI inflation rate:

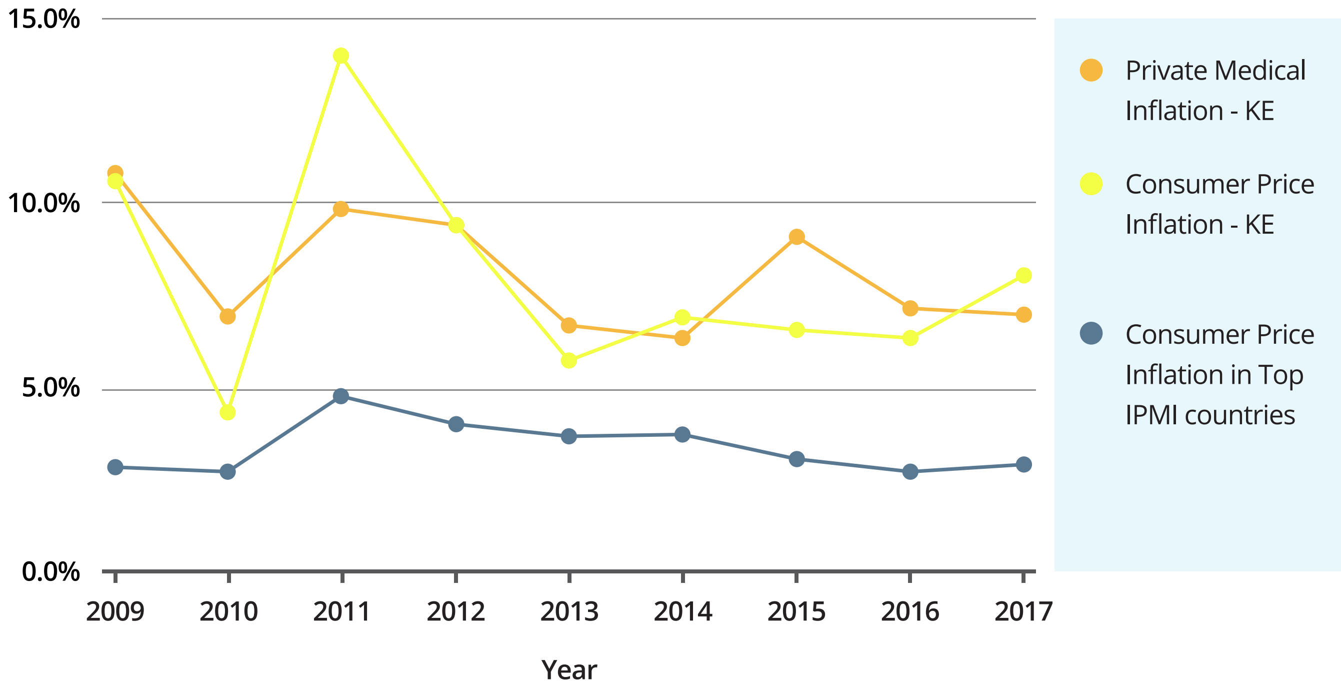
- **Economic stumble:** Following the Brexit vote result, the UK economy saw the Consumer Price Inflation rate jump to its highest point in four years.
- **Changing populations:** The Brexit vote also resulted in a sizeable number of European Union residents leaving the UK, driving less demand for private health insurance, and a greater drain on the economy.

As an emerging driver, we expect the following factor to pose a potential influence on the future costs of IPMI plans in the UK:

- **Investment in AI and medical technology:** Studies are being conducted in the UK to investigate how radar sensing and AI may help the health sector cut costs in the future, particularly where vulnerable and costly patients are concerned.

# Inflation in Kenya

## Private Medical Insurance Inflation in Kenya: 2009 - 2017




2017 was a tumultuous year for Kenya, with overworked public doctors and nurses going on strike for better treatment and conditions. The private sector was not immune to the issues facing public physicians as they struggled to meet overcrowding, particularly in maternity wards. The impact of such conditions can be found in an alarming statistic; nearly 80% of doctors in Kenya quit before finishing their first year in the profession. These factors make having a comprehensive international private medical insurance plan all the more important.

Despite all of these pressures, the IPMI inflation rate in Kenya in 2017 was 7.0%, slightly lower than the 7.2% inflation rate seen in 2016. Despite this decrease, the CAGR (Compound Annual Growth Rate) of IPMI inflation in Kenya from 2009 - 2017 was 6.88% per annum , one of the lower rates of countries included in this report.

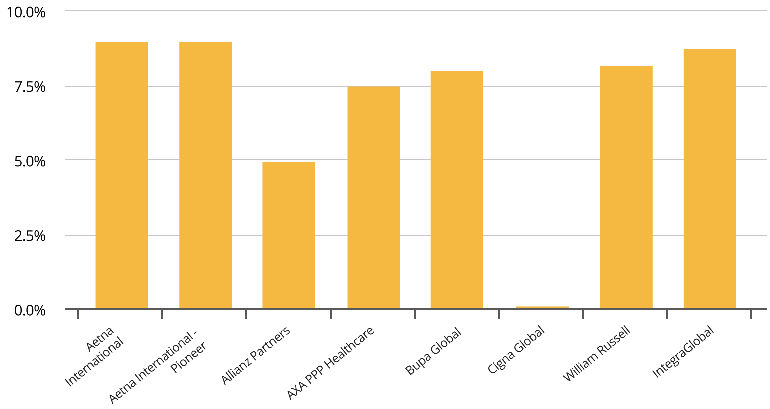
Meanwhile, Consumer Price Inflation in Kenya rose significantly in comparison to the IPMI data. Where it was 6.3% in 2016, the CPI was 8.0% in 2017. This is well above the worldwide CPI rate of 3.1%, and just slightly above Kenya's IPMI inflation figure. Both the IPMI and CPI rates for Kenya followed worldwide trends of insurance inflation decreasing and the Consumer Price Inflation increasing.

## Inflation by insurer in Kenya

The inflation data by insurer in Kenya shows again that Cigna Global had a significant impact on the country's IPMI Inflation. Cigna Global posted a minuscule 0.1% increase in their IPMI plans in 2017, down from 7.78% in 2016. While it was not a negative inflation rate, as seen in many other locations, the low inflation figure was enough to significantly impact the average IPMI rate for both Kenya and the ROW.

The other big movement in the insurer data was Allianz Partners (formerly Allianz Worldwide Care), whose IPMI inflation more than doubled since the previous year, and IntegraGlobal, whose rate dropped from 12.76% in 2016 to just 8.8% in 2017. Again, it should be noted that these do not necessarily indicate the most expensive or cheapest IPMI plans in the market, just the rate by which their premiums increased in the past year.

Private Medical Insurance Inflation by Insurer - Kenya




## Kenya inflation drivers

Drivers of inflation in Kenya are not as advanced as other areas, however we believe the following are having some impact on the cost of medical care provision, and thus insurance, in the country:

- **Imbalance of resources:** The aforementioned doctor's strike lasted 105 days, and was followed by nursing strikes less than three months later. This indicates that the government is struggling to provide uninterrupted medical services in Kenya, whilst attributing adequate resourcing to those providing that care.

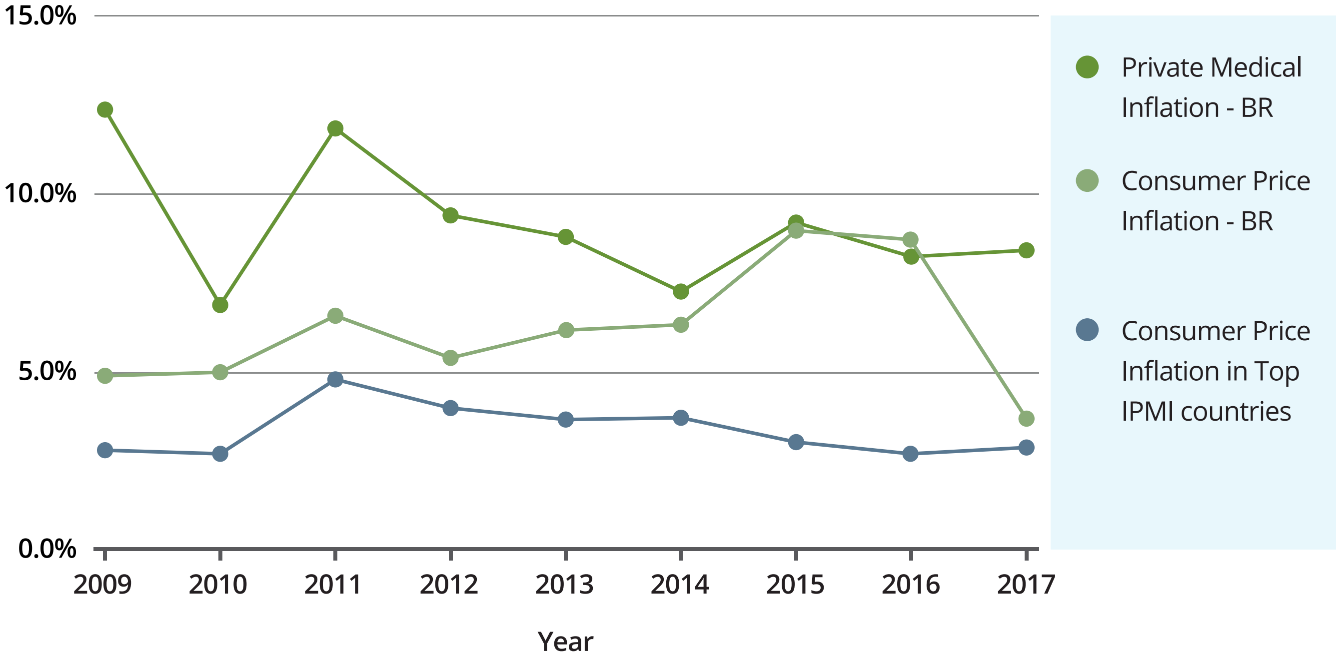
- **Grouping with low cost countries:** The movement of many of Kenya's individual insurers mimics the same trends seen in many of our other "low cost" international insurance locations, indicating that it is still treated as such.

Of the emerging drivers for 2018, Kenya has the following factors on its horizon:

- **Investment in technology:** Kenya has just recently signed an agreement with the government of Japan to launch a health development program to integrate technology into the provision of healthcare, while the Aga Khan University Hospital has recently purchased a hi-tech cancer screening machine to provide better quality diagnostic care.

# Inflation in Brazil

## Private Medical Insurance Inflation in Brazil: 2009 - 2017




While Brazil's Unified Health System (SUS) continued working towards improving the system in 2017, a majority of people in the country are still unsatisfied with public healthcare. Despite greater investment in private medical facilities, better quality hospitals and service are being targeted towards a growing medical tourism market instead. This has led to private hospitals seeking service excellence and competitive pricing in order to attract foreign patients.

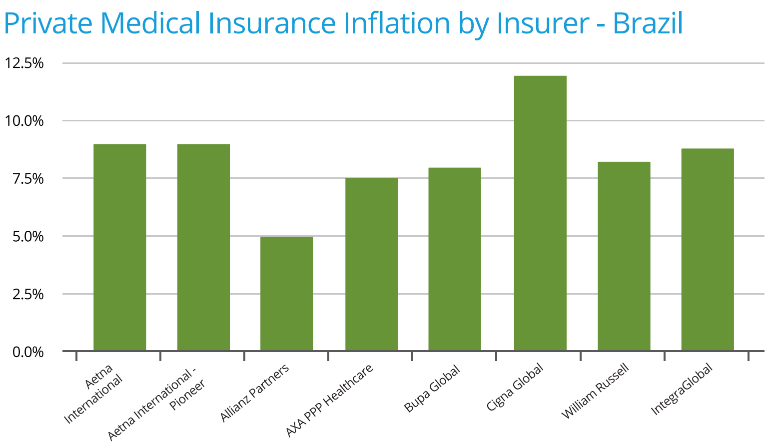
The IPMI inflation rate in 2017 was 8.4%, up slightly from 2016's rate of 8.3%. While this may seem to be a good sign that Brazil's IPMI market is holding steady, the fact remains that Brazil is the only country covered in this report that saw an increase in its year-on-year inflation rate.

We can also report a we can report an 8.12% CAGR (Compound Annual Growth Rate) for IPMI inflation from between 2009 and 2017. This indicates that 2017's inflation rate is similar to the average rate for the past eight years.

On the other hand, Brazil's CPI inflation rate dropped dramatically from 8.7% to 3.7% in 2017. Traditionally IPMI and CPI inflation follow each other relatively closely, but that is not the case here, as IPMI inflation rose while CPI inflation fell. The CPI inflation rate is likely due to the emergence of the Brazilian economy from a protracted recession.

## Inflation by insurer in Brazil

For the insurers, Brazil's individual IPMI inflation rates followed global trends. Interestingly, Cigna Global's negative inflation rates were not present in Brazil in 2017. Meanwhile, Aetna International's plans in particular saw the biggest decrease in IPMI rate between 2016 and 2017.




## Brazil inflation drivers

The standout inflation drivers for Brazil's international private medical insurance products in 2017 remain closely linked to its economy, with the following examples being seen:

- **Economic recovery:** There are signs that Brazil is emerging from recession, including a rising GDP, falling inflation, and improved fiscal accounts. However, recovery is not complete as debt is also rising, as the unemployment rate is still above 13%, even though it dipped some in the last quarter of 2017.
- **Private demand and increased compensation:** While 2016's exit of expats due to the economic climate was putting pressure on the IPMI market, 2017's upswing in medical tourism interest has replaced the previous source of private healthcare demand in Brazil - thus driving up treatment fees and doctor compensation.

Of our emerging drivers, Brazil saw the following drivers show signs of growing influence in 2017:

- **Investment in medical technology:** Brazil's government invested over 6% of its GDP in its healthcare industry in 2015, and the country has seen a growing adoption of diagnostic imaging procedures. This has led many to believe that the medical x-ray market in the country should witness lucrative growth in the near future. It's expected that the medical devices market itself could reach around USD 1.8 billion by 2023.

Global IPMI Inflation 2018

# Appendix

# Appendix A - Report changes

As mentioned in this report there were a number of changes made to this year's version of the International Private Medical Insurance Inflation report. Below is an overview of the most important changes along with our reasoning behind it.

## Change of insurer and plan names

Unlike in previous reports, there were fairly few notable changes among the insurers and plans featured in this report. That said, there were two noteworthy changes.

1. **Allianz Worldwide Care rebranded as Allianz Partners -** This was largely a high-level brand evolution aimed at making the company more approachable and digital friendly. As of the writing of this report, we do not know of any changes made to plans due to this rebrand.
2. **Aetna International's InterGlobal plan has now been renamed as Pioneer -** Aetna International's acquisition of InterGlobal was completed in 2014. In 2017, Aetna rebranded/updated their old InterGlobal plans to Aetna Pioneer plans. As such, the report has been updated to reflect this. Due to Aetna International selling both the International Healthcare and Pioneer plans, they have been included in this report. We will review this in 2018 and likely switch one of them out for another insurer.

## Change of Consumer Price Index inflation source

We have switched our source for the Consumer Price Index (CPI) inflation to the International Monetary Fund. We believe that the data available from this organization is more reliable and accurate. When comparing figures utilized in previous reports, there are some differences. As such, we have also updated historical CPI inflation figures in this report to reflect those available from the IMF.

Unless noted, all CPI figures are from the IMF.

## Introduction of the CAGR

One of the most common pieces of feedback we have received in regards to this inflation report is the lack of a Compound Annual Growth Rate (CAGR) figure. As such, we have included a CAGR calculation where feasible.

The CAGR is calculated from the years 2009-2017 (eight periods) and represents the average growth by year during this time period.

## Elevation of emerging drivers to key drivers

In 2017 we found that two emerging drivers from previous reports had continued to play a larger role on IPMI inflation. As such, we believe that the following are now key drivers of inflation.

- Changing population dynamics
- The increasing adoption of non-industry specific technology

**The second driver above - adoption of technology -** is, at first glance, similar to long-standing key driver: New medical technology, but in this case we are referring to the adoption of non-industry specific technology into the insurance industry. For example, when we refer to new medical technology, we are talking about tech developed specifically for the industry.

The newly minted key driver however discusses broader tech concepts like big data and online portals used successfully in other industries. It is important to note here that this new driver and the technology discussed in relation to it, if employed correctly, will have a downward impact on inflation (cause inflation to decrease). The implementation of medical technology has historically had an upward impact (could lead to increased inflation), thus we treat them as two separate drivers in this report.

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