

Medical inflation and health insurance products in India: Current practices and the way forward

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Medical inflation is a key driver of health insurance costs and hence premium increases. Health insurance companies are therefore continuously looking for ways to manage medical inflation better to keep premiums competitive for customers and to mitigate lapses.

Despite adopting many initiatives on claims management, fraud management, provider networking, case management etc., most insurers are still struggling with medical inflation, which generally far exceeds retail or consumer price inflation. This has become more and more important with the new players entering the market with competitive pricing and product offerings.

In this paper, we discuss the common definitions of medical inflation, factors driving medical inflation in the short and long terms and current medical inflation trends in India. We also discuss the Insurance Regulatory and Development Authority of India (IRDAI) regulations on rate filing and restrictions on premium rate increases in the context of how companies are currently adjusting their premium rates for medical inflation. Further, we will provide insights in current practices and levels of premium increases in Indian and international health insurance markets and the way forward.

What is medical inflation?

There are several definitions of medical inflation in the context of increasing healthcare costs. Some define medical inflation as only the increase in the average or unit cost of a healthcare service over a historical period; others consider increases in both utilisation and the unit costs of services. It is thus important when talking about medical inflation to understand what is included in the definition and to be consistent over time. In this paper, we define medical inflation as the change in the average healthcare expenditure per person from year to year, assuming the risk profile of the person in question remains the same and the benefit entitlements remain unchanged. Therefore, implicitly we include both utilisation increases that are irrespective of changes in the average risk of the population, *plus* the change in the unit cost of services.

What factors are driving medical inflation in the short and long terms?

Major drivers of medical inflation that are distinct from risk profile changes are general cost or retail price inflation, increases in the real wages of medical staff, increases in healthcare access and medical advancements, of which a large component is new drugs and treatments.

We split out the utilisation and changes in unit cost below to examine each in a little more detail.

1. Change in cost per service: This refers to the change in the unit cost of a specific existing medical treatment or procedure. The change in cost is primarily driven by:
 - a. Change in consultants' fees and hospital staff salaries
 - b. Change in cost of hospital consumables
 - c. Increases in the overheads of the hospital, e.g., rent or property costs, utilities and technology
2. Change in utilisation of services per person: This refers to the change in the overall utilisation of services, but also captures the fact that the distribution of utilisation may be different over time, i.e., it may become more skewed towards newer, more expensive treatments and drugs. The change in utilisation is primarily driven by:
 - a. Change in healthcare availability and access, i.e., supply and demand
 - b. Consumer behaviour, i.e., change in awareness levels about health in general, or a general willingness to consume more healthcare in preference to other consumption
 - c. Medical advancements, i.e., new drugs and technologies which can treat diseases that were previously untreatable or were treated more conservatively or cheaply, and advanced diagnostic technologies which can diagnose certain medical conditions more accurately and quickly

Current levels of medical inflation in India based on publicly available reports

Various attempts have been made to calculate medical inflation in India. Most of the studies we found were focused on the change in unit costs over time, with some focused on changes in average costs, which accounts implicitly for changes in utilisation mix to some degree. However, aggregate increases

in utilisation have generally been considered either negligible or not considered at all. Figure 1 summarises ‘medical inflation’ from various sources. Note that the definition for medical inflation and the methodology used in these studies may be different from the one described above. Please refer to the complete source report when interpreting and using the values shown in Figure 1.

FIGURE 1: MEDICAL INFLATION IN INDIA: PUBLICLY AVAILABLE STUDIES

REPORT	PERIOD	MEDICAL INFLATION (%)	DEFINITION
The Economic Survey 2018-19 by Government of India ¹	FY2018-2019	7.14%	Average Retail Healthcare Inflation. This is included as a component of the Consumer Price Index, which looks at the weighted average prices of seven items—three for goods and four for services. The definition only looks at the cost increases for a selected basket of healthcare goods and services and not utilisation.
The 2019 Global Medical Trends Survey by Willis Towers Watson ²	2019	9.2%	Gross Cost Trend. This is based on survey data where participants are asked to estimate the change in cost per insured person. The definition is similar to what we have used for the purpose of this paper but it is not clear from the report whether the increase in trend is adjusted for the changes in underlying risks.
2019 Global Medical Trend Rates Report by Aon ³	2019	9.0%	Annual Medical Trend Rates. This represents the percentage increases in medical plan unit costs that are anticipated to be technically required to address projected price inflation, technology advances in the medical field, plan utilisation patterns and cost shifting from social programmes to private insurance. The definition is similar to what we have used for the purpose of this paper but it is not clear from the report whether the trend is adjusted for the changes in underlying risks. In addition, it captures change in premiums rather than claims. It also does not explicitly adjust for changes in risk profile or benefits.
Health Insurance Medical Inflation (2010-2017) by Insurance Information Bureau of India ⁴	FY2016-17	10%	Compound Annual Growth Rate (CAGR) of Amount Claimed Under Individual Policies. This represents change in unit costs. It does not account for changes in risk profile or benefit entitlements and does not consider utilisation changes.

Medical inflation experience by health insurers

In addition to risk-adjusted medical inflation as defined above, the following factors drive the year-on-year change in per insured cost experience from one insurer to another:

1. Product design: Insurers with products containing richer benefits usually attract high utilisation and increased use of high-cost services due to increased access of the insured, moral hazard and anti-selection. They therefore

tend to experience higher medical inflation both because of greater access to new technologies and services that are covered by more generous benefit packages and because of the difficulty that insurers have in using their negotiating powers to manage the unit cost increases of lower-frequency, higher-cost services.

2. Provider contracting: Insurers with large portfolios can negotiate better rates with providers and are able to mitigate some inflationary pressures through higher volume discounts from the providers.

¹ Economic Survey 2018-19, Volume 2. Chapter 5: Prices and Inflation. Retrieved 15 July 2020 from https://www.indiabudget.gov.in/economicsurvey/doc/vol2chapter/echap05_vol2.pdf.

² Willis Towers Watson 2019 Global Medical Trends Survey Report. Retrieved 15 July 2020 from <https://www.willistowerswatson.com/-/media/WTW/Insights/2018/11/2019-global-medical-trends-survey-report.pdf> (PDF download).

³ Aon. 2019 Global Medical Trend Rates Report. Retrieved 15 July 2020 from <https://www.aon.com/getmedia/0c375f10-3b16-4d2d-a452-4ae86968525b/2019-Global-Medical-Trend-Report.pdf.aspx>.

⁴ Insurance Information Bureau of India. Health Insurance Claim Information Report (2010-2017). Retrieved 15 July 2020 from https://admin.iib.gov.in/Uploads/Document/244/health_insurance__claim__inflation__report_201017ilovepdfcompressed.pdf.

3. Medical management: Care management services such as utilisation management, case management and disease management programmes all have varying impacts on medical inflation. While the evidence for financial return on investment from disease and case management programmes is limited, using utilisation management in conjunction with evidence-based criteria or guidelines for assessing the appropriateness of medical care can be effective in controlling utilisation trends.
4. Change in risk profile due to selective lapsing: Selective lapsing occurs when the healthy and low-risk customers leave the insurer for lower premiums or downgrade their benefits and the high-risk customers remain with the insurer. Insurers with high premium increases tend to experience high selective lapsing, resulting in adverse change in risk profile and further need for high increases.

There is no credible industry-wide medical inflation analysis available that considers both utilisation as well as unit cost and is based on robust methodology and data. Most insurers rely primarily on their own experience to adjust for medical inflation while repricing their products.

Current IRDAI regulations on rate filing and restrictions on premium increases

As per the current IRDAI regulations,⁵ the prices of any new products filed with IRDAI cannot ordinarily be revised for a period of three years. Thereafter the insurer may revise the premium rates depending on the experience, subject to the following:

1. *The policy premium rate shall be unchanged:*
 - a. *For all group products for the term of the policy*
 - b. *For all individual and family floater products, other than travel insurance products offered by general insurers and health insurers, for at least a period of one year in the case of one-year renewable policies or a period of up to a maximum of three years for the rest.*
 - c. *In case of individual health products offered by life insurers, every block of three years.*
2. *Changes in rates will be applicable from the date of approval by the IRDAI and shall be applied only prospectively thereafter for new policies and from the date of renewal for the existing policies.*

In general, due to constraints such as slow turnaround and high costs of pricing exercises, competition, high shock lapse risk, market practices etc., insurers are reluctant to change their pricing annually. Even if insurers attempt to file for a price revision after the initial three years for a new product, the process of getting approval from the IRDAI further delays it by four to six months.

On the other hand, in case of adverse experience, the lock-in period of three years for premium rates restricts the insurers from revising their premiums during the initial period, resulting in a high one-time increase in premium rates at the end of three years and leaving insurers highly vulnerable to selective lapsing.

Current level and frequency of premium increases in the Indian health insurance market

Premium increases after the initial lock-in of three years vary significantly from insurer to insurer. Private insurers tend to revise their premiums more frequently than public sector insurers selling health insurance products. In our experience, the frequency of rate revisions varies from two to four years in the case of private insurers and from five to 10 years for public sector insurers.

The levels of premium increases also vary from insurer to insurer and depend on the following factors:

- Lag between last and current rate revisions
- Benefit design changes
- Actual versus expected experience
- Market competition

In our experience, insurers typically revise their premiums by 15% to 35% every two to four years to account for medical inflation. The longer an insurer waits before revising its premiums, the more vulnerable it is to selective lapsing at the point of premium increases, leaving a higher proportion of high-risk population in its portfolio and further deteriorating the loss ratios.

Another market practice that exacerbates the issue of premium shocks is setting up premium rates in age bands of three to five years. The premium for any insured remains constant in a particular age band. In normal circumstances, the premium increases from old to new age band are within the expected range. However, when it is combined with the rate revisions, the increase in premium for an insured moving to the next age band on renewal could be as high as 50% compared to the previous policy period. This again leads to large risks of selective lapsing.

⁵ Part of Regulations (3)(b) and (10)(e) of Insurance Regulatory and Development Authority of India, (Health Insurance) Regulations, 2016. See <http://www.policyholder.gov.in/uploads/CEDocuments/Health%20Insurance%20Regulations%202016.pdf>.

Annual price increases mechanisms in international markets

To understand the medical inflation definitions common in international markets and the regulatory framework and practices for annual price increases, we conducted a survey of Milliman consultants in Brazil, China, Germany, Hong Kong, Ireland, Mexico, Singapore and the UK.

The table in Figures 2 summarises the responses. In general:

- The medical inflation definition is broadly similar to the definition used in this paper.
- Actual historical medical inflation experience varies by market. Generally, developing markets exhibit high medical inflation, in excess of 10% per annum. More mature markets exhibit medical inflation of less than 6% per annum.
- In most markets surveyed, insurers are not required to file for the price increases.
- Insurance regulators in most of the markets we surveyed have not put restrictions on annual premium increases and there is no upper limit on the quantum of increase. The basic principle followed for the price increase is that it should be “fair” to the customers, but the implementation of this principle in practice varies considerably. In Germany, for example, the formula for calculating allowable increases is prescribed in detail, whereas, in the UK, the interpretation of “fair” is left up to individual insurers to define and implement.
- A medical inflation index or similar reference point is available in some markets, but is calculated in various different ways. In most markets, insurers use their own experience to decide on the price increases, but some use the market medical inflation index as a reference point.

FIGURE 2: SUMMARY OF SURVEY RESPONSES

S. NO.	QUESTIONS	BRAZIL	MEXICO	CHINA	SINGAPORE
1	Is the medical inflation definition above consistent with the definition used in your market?			Yes.	
2	What is the historically experienced medical inflation rate per annum over the last 3 years (high-level range)?	17%-21% (authorised annual readjustment index 7.5%-13.5%)	10%-15%	c. 10%	10%-12%
3	Is the medical inflation rate experienced by health insurers is same as overall medical inflation rate in market (as given above). If not, please explain reason/s for difference e.g. selective lapsing, benefit downgrades, upgrades etc.	No. Large insurers usually consider their own experience for defining medical inflation.	No. It varies from insurer to insurer depending on their experience and selective lapsation effect for each product.	No. The rate increase regulation is only effective recently and no insurer has actually gone through rate increase as yet and we expect the increase varies by insurers	Yes.
4	What is the regulatory framework on annual premium rate increases for health insurance products in your market?	Yes. For individual products, the regulator establishes maximum increment rate. For all group products, the insurer can define the methodology that will consider in contract's terms.	No. Regulatory limitations but regulator encourages keeping rate increases below 10% per annum.	No. Regulatory approval is not required, but rate increase needs to be announced publicly and rate increase criteria need to be included in product filing up front.	Yes. Separate regulation for 'use and file' and 'file and use.'
5	Are insurers required to refile their products with the regulator for the premium rate increases specifically for medical inflation?	No.	No.	No. However, a new regulation effective from 1 December 2019 requires the insurers to include premium adjustment methodology in the filing.	Yes.
6	If answer to question 5 is No , Is there an upper limit applicable on the premium rate increases?	Yes. For individual product only.	c. 10%	No.	No.
7	Is there any published health cost index available in your	Yes. ⁶	Yes. ⁷	No.	No.

S. NO.	QUESTIONS	BRAZIL	MEXICO	CHINA	SINGAPORE
	market? If yes, please share the methodology used if available.				
S. NO.	QUESTIONS	IRELAND	GERMANY	UNITED KINGDOM	HONG KONG
8	Is the medical inflation definition above consistent with the definition used in your market?			Yes.	
9	What is the historically experienced medical inflation rate over the last 3 years (high-level range)?	c. 1%	c. 2.5%	5%-6%	c. 6%
10	Is the medical inflation rate experienced by health insurers is same as overall medical inflation rate in market (as given above). If not, please explain reason/s for difference e.g. selective lapsing, benefit downgrades, upgrades etc..	No. The health insurer medical inflation rate is lower than the general medical inflation rate. This is driven by a campaign by insurers to control costs of treatment in public hospitals. Insurers are encouraging customers to go to public hospitals and help reduce insurance costs.	No. It varies from insurer to insurer depending on their experience and selective lapsation effect for each product and tariff changes by the regulator.	No. It varies from insurer to insurer depending on their experience and selective lapsation effect for each product.	No.
11	What is the regulatory framework on annual premium rate increases for health insurance products in your market?	No. There are no regulatory limitations. Insurers must give 30 days' notice to the regulator of changes in benefits, changes in premiums or proposed new contracts.	Yes. A formula-driven approach requires the actuary to look at the historical deviation between actual and expected claims and make adjustments to future premiums if the deviation is outside a prescribed corridor.	No. There is no regulatory framework on price increases other than the requirement to follow 'treating customers fairly' principles.	No. No regulatory approval is required.
12	Are insurers required to refile their products with the regulator for the premium rate increases specifically for medical inflation?	Yes. They must notify the regulator of changes in premiums or benefits at least 30 days before the changes take effect.	Yes. An independent trustee approves the premium adjustment	No.	No.
13	If answer to question 5 is No , Is there an upper limit applicable on the premium rate increases?	No.	No.	No.	No.
14	Is there any published health cost index available in your market? If yes, please share the methodology used if available.	No.	Limited. Association of the PHI in Germany publishes the claims costs per policyholder in the full coverage tariffs every year; but the study has limitations such as the cost also including the aging of the portfolio.	Limited. Published by the brokers, looking at the average premium increase for a 'typical' family. They do not tend to take into account changes in benefit packages.	No.

⁶ IESS. See <http://documents.scribd.com/s3.amazonaws.com/docs/5u00531ds03ogln0.pdf>

⁷ See <https://www.cnsf.gob.mx/Difusion/Paginas/Anuario.aspx>

Way forward

In high medical inflation markets such as India, it is important for the sustainability of insurers to be able to include risk-adjusted inflation in their pricing at least on an annual basis. This will require robust methodology and mechanisms to track medical inflation closely and design of internal processes for standardising the repricing exercise. In our experience, such a strategy will initially be difficult to implement due to the nature of the price-competitive market, but with the right communication strategy the benefits far outweigh the risks.

As seen in the other international markets and emerging as a potential best practice, a market medical inflation index or similar could provide the industry with credible benchmarks against which to judge proposed premium increases. However, no such standardised medical inflation index is currently published in India, although the data exists to do so. Such an

index would be extremely useful in providing a solid and robust benchmark and would allow insurers to compare their own experience against the market. It would also highlight the damaging effect on the market of high medical inflation and encourage more cross-industry responses, especially if it were fairly granular in nature and examined the different components of medical inflation by cost categories. It would provide a solid base for new entrants to build their own pricing models, which would encourage market competitiveness. In our experience, competitive markets do not respond to a market index by simply increasing their premiums by the benchmark—the competitive market still provides ample incentive to "beat the market benchmark." By highlighting the issue at a market level and creating transparency by publishing an index, insurers have more incentive to manage claims costs, not less. In some markets, having medical inflation increases that are lower than the published benchmark is a key selling point.



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