ORGINAL RESEARCH

GJMS Volume 3 | Issue 2 Jul - Dec 2023

The Utility and Perception of Health Insurance Among Healthcare Providers in Delhi: A Cross-Sectional Study

Shreetoma Datta[1], Pauras Mhatre[2], Bhuchitra Singh[3]

1. MBBS, Smt. Kashibai Navale Medical College and General Hospital, Pune, India; 2. MBBS, Seth G.S. Medical College and K.E.M. Hospital, Mumbai, Maharashtra, India; 3. Director of Clinical Research, Division of Reproductive Sciences and Women's Health Research, Johns Hopkins University School of Medicine, Baltimore, MD, USA.*

ABSTRACT

Background & Objectives: Understanding health insurance implementation from the healthcare providers' perspective is critical to improve delivery of care. Our aim was to evaluate the utility and perception of health insurance among healthcare providers.

Methods: A cross-sectional survey-based study was conducted at a tertiary care hospital in Delhi, India. After ethics approval from the institute, healthcare providers in the hospital who provided direct care to the patients for at least a year were identified and verbally consented. Self-developed validated study questionnaires were distributed to collect the data from the participants. Descriptive statistics were used to report findings.

Results: Majority of the responders were in the age group of 31-40 years (33.67%). 56% knew healthcare is a human right in India, and 85.71% understood health insurance as a binding contract. Private companies were favoured (42.85%) as insurance providers. 88% found premium rates high, and 61.22% preferred insured patient treatment. Everyone supported a better national health insurance scheme, with 85.71% believing it helps the poor. Only 27.55% thought 100% coverage in India was possible.

Interpretation & Conclusions: Healthcare providers provided valuable insight into the practical problems of healthcare insurance implementation and these factors can be used to further improve health insurance schemes.

Keywords: Delivery of Health Care; Insurance, Health; Health Personnel; Universal Health Care; National Health Programs

*See End Note for complete author details

INTRODUCTION

For an impactful health insurance implementation, one of the topics requiring better research is how insurance affects the quality of care and doctor-patient relations.[1] The health insurance industry reported a 25% growth specifically due to expansion of the private health insurance sector.[2] Healthcare providers play a critical role in the delivery of quality care and establishing eligibility criteria for insurance coverage.[3] Insurance status has been known to affect the quality of care delivered.[4] Hence, the objective of this study was to evaluate the utility and perception of health insurance among healthcare providers in India.

METHODS

The survey-based cross-sectional observational study was conducted in a tertiary care hospital in Delhi, India during March - April 2013. The study participants were healthcare providers in the hospital who provided direct care to the patients. Healthcare providers, having a work experience of more than one year, and freely consenting to participate, were included in the study. After identification and screening of participants according to the eligibility criteria; participants were provided information about the study, including possible benefits and risks; and verbal consent was obtained prior to filling out the study questionnaire.

The study was conducted a self-prepared validated standardized questionnaire including a section for demographic data. Data quality assurance strategies were used in designing the data collection instrument, which underwent validation prior to actual use by participants. Block 1 of the questionnaire consisted of eight items and was designed to collect the healthcare providers' knowledge of

Submitted 29-10-2023 Accepted 1-12-2023 Published 30-12-2023

Access this Article Online

Scan this QR Code

https://doi.org/10.25259/GJMS.2023.3.2.1

Corresponding author:

Pauras Mhatre,
Seth G.S. Medical College and K.E.M. Hospital, Mumbai, Maharashtra, India
Email ID - paurasmhatre@gmail.com

Table 1. Demographic Characteristics of Healthcare Providers in Study Sample (N = 98)

Characteristic	n	%
Age		
21-30	22	22.44
31-40	33	33.67
41-50	24	24.48
>50	19	19.38
Sex		
Male	42	42.85
Female	56	57.14
Qualification		
Graduate	40	40.81
Postgraduate	58	59.18
Experience		
0-10	49	50.00
11-20	26	26.53
21-30	16	16.32
31-40	7	7.14
Present Position		
Consultant	9	9.18
Senior Consultant	12	12.24
Senior Resident	21	21.42
Junior Resident	14	14.28
Administrative Officer	42	42.85

healthcare insurance. Block 2 of the questionnaire consisted of 20 items and focused on the perception of healthcare providers towards healthcare insurance. Printed study questionnaires were distributed to collect the data.

Ethical Considerations: The study was conducted according to the principles stated in the Declaration of Helsinki, as revised in 2000; ICH-GCP Guidelines; and the ICMR's Ethical Guidelines for Biomedical Research on Healthy Participants, 2011. The study protocol and questionnaire were reviewed and approved by the institute for ethical considerations before collection of data. The study was categorized as associated with less than minimal risk and was permitted for participant recruitment with verbal informed consent (written consent was not required). Participant responses were anonymous and no identifying information was collected.

Statistical Analysis: A data quality review of the responses was performed before analysis. Demographic characteristics were summarized using descriptive statistics. Mean and standard deviation (SD) were used for describing continuous variables like age in years. Categorical variables like sex, qualifications (graduate or post-graduate), professional experience (0-10, 11-20, 21-30, 31-40 years) and present position (senior consultant, consultant, senior resident, junior resident, administrative officer) were reported using frequencies and percentages. Descriptive statistics were used to report the findings of knowledge and perceptions regarding healthcare insurance. Statistical analyses were performed using Microsoft Excel version 16.33 (Microsoft Corporation, Redmond, WA).

RESULTS

Among 132 healthcare providers that were approached and eligible, 98 verbally consented and filled out the study questionnaires. Characteristics of the study participants are presented in **Table 1.** Participants ranged in age from 25-64 years with a mean age of 39.34 ± 10.41 years. The most common responders were in the categories of 31-40 years (33.67%), female (57.14%), completed post-graduate training (59.18%), 0-10 years of professional experience (50%) and healthcare administrative officers (42.85%); for age, sex, qualification, professional experience and present position respectively.

As shown in **Table 2,** majority of the responders had an appropriate level of understanding of what health insurance entails. Fifty-five (56%) of the responders correctly identified that 'healthcare for all is a human right in India'. The fact that 'insurance is a legally binding' document was correctly reported by 84 (85.71%) of the responders. In an open-ended question to inquire about the country with best insurance policies, none of the responders reported India. Most of the responders i.e., 68 (69.38%) did not have an answer for that question.

Table 3 summarizes the perception of healthcare providers towards healthcare insurance. Eighty-six (87.75%) responders agreed that the present premium rates were too high, 60 (61.22%) agreed to preferential treatments of insured vs. uninsured patients, and 55 (56.12%) respondents agreed that unnecessary tests and procedures were performed for the insured patients. Sixty-five (66.32%) responders reported that insured patients had a longer hospitalization time. A majority of 87 (88.77%) responders believed that it was not fair to exclude certain diseases from policies and 62 (63.26%) agreed that it was right if not all services and medication were covered by insurance. However, 96 (97.95%) healthcare providers agreed that long term medications should be covered by the insurance policies. Seventy-four (75.51%) respondents disagreed that health evaluations were modified to allow for patients to get a healthcare insurance policy. Eighty-three respondents (84.69%) believed that the hospitals were turning into hospitality centers in the wake of higher insurance costs and everyone agreed that the

Table 2. Healthcare Providers' Knowledge of Healthcare Insurance

Question	Yes [n (%)]		No [n (%)]		
Q1. Is Healthcare for all a human right in India?	55 (56.12%)		43 (43.87%)		
Q2. Is Insurance a legally binding contract?	84 (85.71%)		14 (14.28%)		
Q3. Do you think exclusion criterion set by insurance companies are justified?	59 (60.20%)		39 (39.79%)		
Question	**Advance [n (%)]**	**Premium [n (%)]**	**Rebate [n (%)]**	**None [n (%)]**	
Q4. What is the amount given in advance for an insurance scheme called?	0 (0.00%)	97 (98.97%)	0 (0.00%)	1 (1.02%)	
Question	**Premium is high enough to cover full claim of insured and insurer [n (%)]**	**Nature of loss is definite and financially measurable [n (%)]**	**Loss should be random [n (%)]**	**All of the above [n (%)]**	
Q5. An insurance risk is one where:	4 (4.08%)	8 (8.16%)	0 (0.00%)	86 (87.75%)	
Question	Private companies [n (%)]		Government insurance schemes [n (%)]	Community based insurance schemes [n (%)]	
Q6. Which companies provide better healthcare coverage according to you?	42 (42.85%)		29 (29.59)	27 (27.55%)	
Question	**Rebate [n (%)]**		**Premium [n (%)]**	**Deductible [n (%)]**	
Q7. Amount paid by insured regularly so as to get insurance coverage is called:	12 (12.24%)		40 (40.81%)	46 (46.93%)	
Question	**USA**	**UK**	**Other Countries**	**India**	**No Idea**
Q8. Which country according to you has the best insurance policy? (Open-ended)	14 (14.28%)	13 (13.26%)	3 (3.06%)	0 (0.00%)	68 (69.38%)

country needed a better National health insurance scheme. Eighty-three (85.71%) healthcare providers reported that a national insurance policy will alleviate the condition of the poor. However only 27 (27.55%) respondents agreed that 100% coverage is possible in our country.

Ninety-two (93.97%) participants believed that doctors should be competent to suggest right insurance policy for an individual and 85 (86.73%) agreed that community-based insurance policies should be encouraged. All (98) healthcare providers agreed that the cost of procedures should be fixed to avoid steep inflation of insurance charges and employers given policy should extended to entire family. The responders were divided almost equally (48 (48.98%) agreed and 50 (51.02%) disagreed) on the question whether patients became unwilling to undergo a procedure if it cost more than their insurance coverage and 97(98.97%) agreed that the process of claims retrieval was tedious.

DISCUSSION

Our study was conducted at a tertiary care hospital in an urban city, with a large patient population, hence helping us to gather insights from a well-exposed pool of healthcare providers. Fifty-nine percent responders had completed post-graduate medical training, which is a key factor in analysis since a significant association between awareness, level of education and knowledge of health insurance schemes has been seen.[5]

Majority (42.85%) stated private health insurance companies as providing the best policy to patients, indicating that there is an urgent need to improve public health insurance to attain universal health coverage, since the majority of the Indian population cannot afford private insurance. The Ministry of Health and Family Welfare (MoHFW) needs to be more assertive in the demands for health budget and must use proven case scenarios to justify higher budgetary allocations.[6] Surprisingly, a study conducted in a Middle-Income Household (MIH) population found a 41% health insurance coverage, despite absence of any publicly funded schemes. Poor financial status and a high premium rate were cited as the top causes for not having a health insurance in that study. Focusing on these determinants is of utmost importance.[7] In our study, majority of the healthcare providers did not know about the country with the best health policy in the world, which highlights the scarcity of knowledge among

Table 3. Perception of Healthcare Providers Towards Healthcare Insurance

Statement	Strongly Agree [n (%)]	Agree [n (%)]	Disagree [n (%)]	Strongly Disagree [n (%)]
Present premium rates are too high	47 (47.95%)	39 (39.79%)	8 (8.16%)	4 (4.08%)
Preferential treatment of insured patients over uninsured	8 (8.16%)	52 (53.06%)	28 (28.67%)	10 (10.20%)
Unnecessary tests and procedures conducted on insured patients	5 (5.10%)	50 (51.02%)	35 (35.71%)	8 (8.16%)
Hospitalization period more for insured patients	3 (3.06%)	62 (63.26%)	28 (28.57%)	5 (5.10%)
Is it fair to exclude certain diseases from policies by companies	0 (0.00%)	11 (11.22%)	36 (36.73%)	51 (52.04%)
Cost of all medications and certain services are not covered by insurance, is it right?	2 (2.04%)	60 (61.22%)	29 (29.59%)	7 (7.14%)
Long term medication should be included in the health insurance policies	78 (79.59%)	18 (18.36%)	2 (2.04%)	0 (0.00%)
Doctors modify health evaluation checkups so patient could get a policy	8 (8.16%)	16 (16.32%)	56 (57.14%)	18 (18.36%)
Hospitals turning into hospitality centers in the wake of higher insurance costs	16 (16.32%)	67 (68.36%)	10 (10.20%)	5 (5.10%)
Country needs a better National Health Insurance Scheme	83 (84.69%)	15 (15.31%)	0 (0.00%)	0 (0.00%)
The national Insurance policy alleviates the condition of the poor	21 (21.42%)	62 (63.26%)	13 (13.26%)	2 (2.04%)
100% health insurance coverage possible in our country	1 (1.02%)	26 (26.53)	61 (62.24%)	10 (10.20%)
Doctor should be competent enough to suggest right insurance policy for an individual	22 (22.44%)	70 (71.42)	6 (6.12%)	0 (0.00%)
Community based insurance policies should be encouraged	7 (7.14%)	78 (79.59%)	12 (12.24%)	1 (1.02%)
Cost of procedures be fixed so as to avoid the steep inflation in the charges	77 (78.57%)	21 (21.42)	0 (0.00%)	0 (0.00%)
Employer given policy should extend to the entire family	62 (63.26%)	36 (36.73%)	0 (0.00%)	0 (0.00%)
Patients unwilling to undergo surgeries or procedures if withdrawal limits are exceeded	2 (2.04%)	46 (46.93%)	50 (51.02%)	0 (0.00%)
The process of claims retrieval is tedious in present policies	85 (86.73%)	12 (12.24%)	1 (1.02%)	0 (0.00%)
Are you satisfied with the insurance coverage by your employee	3 (3.06%)	52 (53.06%)	40 (40.81%)	3 (3.06%)
Individual insurance policy is better than family insurance	1 (1.02%)	18 (18.36%)	60 (61.22%)	19 (19.38%)

healthcare providers. The general knowledge on global health insurance is imperative since it guides the development and implementation of insurance policies to improve coverage and access to quality care.

Our study shows that most providers agree that the health insurance premium amount being too high for an Indian population. An analysis of the annual expenditure under the Rajiv Aarogyasri Community Health Insurance (RACHI) in Andhra Pradesh (AP) concluded that the budget spent in private hospitals compared to tertiary public hospitals is unsustainable in the long run.[8] Hence, even with a public-private partnership, better, affordable schemes need to be introduced to be able to provide sustainable health coverage to all. Ways to decrease the divide in healthcare between the rich and the poor as well as the regional disparities in India need to be developed and implemented.[9,10] We need to understand the contradictions in both private and public health-care and strategize schemes accordingly to solve them.[11]

Fifty-six percent participants agreed that unnecessary tests and procedures were performed if the patient had a health insurance. Pisarek et al found that insured patients were admitted at a higher rate compared to uninsured patients (18.6% versus 15.4%) for care.[12] Similar to our findings, Englum et al reported increased hospitalization duration for insured (public or private insurance) patients by an risk-adjusted average of 0.9 days [95% confidence interval (CI) 0.8–1.0] compared to uninsured patients.[13] Optimizing factors like length of stay in hospital, unnecessary investigations, and out of -pocket expenditure, for each patient, will help minimize neglected costs. Waiting times can be reduced by implementing the recommendation of abandoning the concept of prioritization as well as using Telehealth.[14,15] Hence it is important to understand the perception and delivery of care patterns by healthcare providers based on the insurance coverage status of the patient.

Majority of healthcare providers on the survey reported that preferential treatment was provided to the insured patients. This is a critical finding. Hanson et al reported that insurer consolidation may lead to improved patient experience.[16] All participants agreed that the country needs a better National Health Insurance scheme. Karan et al similarly reported the inefficiency of the Rashtriya Swasthya Bima Yojana (RSBY) in reducing the out-of-pocket spending on poor households.[17] The government must look into recommendations provided

by studies such as ours and others in the past across the world, to formulate newer policies for the future, which will ultimately lead to attainment of the goal of universal health coverage.[18] Eighty-six percent of the participants reported that a national insurance policy will improve the condition of the poor. One of the reasons for the high out of pocket expenditures was limited access to healthcare in public sectors, compelling the patients to seek private sector healthcare.[6] It was also seen that health insurance creates overall welfare gains for the country. [19]

Although only 27.55% agreed that 100% coverage is possible in the country, there has been an increase in the health insurance coverage numbers (households with any usual member covered under a health insurance/financing scheme) from 28.7% in NFHS-4 (National Family Health Survey) to 41% IN NFHS-5.[20] This, along with learning from other countries Universal Health Coverage (UHC) progress strategies will hopefully help us improve UHC in the long run.[21] All participants agreed (100%) on the need for procedure costs to be fixed since standardization takes away the power from the administration to inflate charges according to their wishes. There was also a 100% agreement on the inclusion of the entire family of an employee under the health insurance scheme provided by the employer, whether government or private. This is important since the overall health of an individual is seen to be dependent on the health of his/her entire family.[22]

There was an equal division in opinion regarding unwillingness to undergo a procedure if it cost more than the patient's insurance coverage. However, multiple studies have reported that patients with any form of insurance had a higher likelihood to undergo an operative intervention.[23, 24]

In our study, the claim retrieval process was highlighted to be very tedious for the patients, hence, quality management needs to be upgraded to provide a smoother experience to all economic strata.[25] This must include comprehensive and timely access to both electronic health records and health insurance claims data. It has also been seen that the handling of claims by insurance companies plays an important role in the recovery of patients.[26]

Every study has its limitations, so does ours. The sample size is small and hence further studies with larger sample size need to be developed along similar study guidelines to compare and analyze data. This study is ten years old, hence the data today might be different. It is important to see the factors assessed in our study and analyze similar research conducted in the present to compare the differences.

CONCLUSION

Healthcare providers provided valuable insight into the practical problems of healthcare insurance implementation and these factors can be used to further improve health insurance schemes.

END NOTE

Author Information

1. Shreetoma Datta, MBBS, Smt. Kashibai Navale Medical College and General Hospital, Pune, India
2. Pauras Mhatre, MBBS, Seth G.S. Medical College and K.E.M. Hospital, Mumbai, Maharashtra, India
3. Bhuchitra Singh, Director of Clinical Research, Division of Reproductive Sciences and Women's Health Research, Johns Hopkins University School of Medicine, Baltimore, MD, USA.

Conflict of Interest: None declared

REFERENCES

1. Ahlin T, Nichter M, Pillai G. Health insurance in India: what do we know and why is ethnographic research needed. Anthropol Med 2016;23(1):102-24. doi: 10.1080/13648470.2015.1135787.
2. Gambhir RS, Malhi R, Khosla S, Singh R, Bhardwaj A, Kumar M. Out-patient coverage: Private sector insurance in India. J Family Med Prim Care 2019;8(3):788-792. doi: 10.4103/jfmpc.jfmpc_101_19.
3. Xesfingi S, Vozikis A. Patient satisfaction with the healthcare system: Assessing the impact of socio-economic and healthcare provision factors. BMC Health Serv Res 2016;16:94. doi: 10.1186/s12913-016-1327-4.
4. Perez D, Ang A, Vega WA. Effects of health insurance on perceived quality of care among Latinos in the United States. J Gen Intern Med 2009;24 Suppl 3:555-60. doi: 10.1007/s11606-009-1080-z.
5. Akinyemi OO, Owopetu OF, Agbejule IO. National health insurance scheme: perception and participation of federal civil servants in Ibadan. Ann Ib Postgrad Med 2021;19(1):49-55.
6. Zodpey S, Farooqui H. Universal Health Coverage in india: Progress achieved & the way forward. Indian J Med Res 2018;147(4):327. doi: 10.4103/ijmr.ijmr_616_18.
7. Ponnusamy P, Venugopal V, Dongre AR. Health insurance coverage and its determinants among middle-income households in Urban Puducherry: A mixed methods study. Indian J Public Health 2021;65:231-6.
8. Reddy S, Mary I. Rajiv aarogyasri community health insurance scheme in Andhra Pradesh, India: A comprehensive analytic view of private public partnership model. Indian J Public Health 2013;57:254-9.
9. Younger DS. Health Care in India. Neurol Clin 2016;34(4):1103-1114. doi: 10.1016/j.ncl.2016.06.005.

10. Purohit BC. Inter-state disparities in health care and financial burden on the poor in India. J Health Soc Policy 2004;18(3):37-60. doi: 10.1300/J045v18n03_03.
11. Phadke A. Contradictions of the health-care system in India and a strategy for health-care for all. Indian J Public Health 2013;57:231-5.
12. Pisarek W, Auwera JC, Smet M, Damme PV, Stroobants J. Insured versus uninsured patients in the emergency room: is there a difference? Eur J Emerg Med 2003;10(4):314-7. doi: 10.1097/00063110-200312000-00014.
13. Englum BR, Hui X, Zogg CK, Chaudhary MA, Villegas C, Bolorunduro OB, et al. Association Between Insurance Status and Hospital Length of Stay Following Trauma. Am Surg 2016;82(3):281-8. doi: 10.1177/000313481608200324.
14. Sæther SMM, Heggestad T, Heimdal JH, Myrtveit M. Long Waiting Times for Elective Hospital Care - Breaking the Vicious Circle by Abandoning Prioritisation. Int J Health Policy Manag 2020;9(3):96-107. doi: 10.15171/ijhpm.2019.84.
15. Caffery LJ, Farjian M, Smith AC. Telehealth interventions for reducing waiting lists and waiting times for specialist outpatient services: A scoping review. J Telemed Telecare 2016;22(8):504-512. Epub 2016 Sep 28. doi: 10.1177/1357633X16670495.
16. Hanson C, Herring B, Trish E. Do health insurance and hospital market concentration influence hospital patients' experience of care?. Health Serv Res 2019;54(4):805-815. doi:10.1111/1475-6773.13168.
17. Karan A, Yip W, Mahal A. Extending health insurance to the poor in India: An impact evaluation of Rashtriya Swasthya Bima Yojana on out of pocket spending for healthcare. Soc Sci Med 2017;181:83-92. Epub 2017 Mar 27. doi: 10.1016/j.socscimed.2017.03.053.
18. Singh Z. Universal health coverage for India by 2022: a utopia or reality? Indian J Community Med 2013;38(2):70-3. doi: 10.4103/0970-0218.112430.
19. Dror DM, Chakraborty A, Majumdar A, Panda P, Koren R. Impact of community-based health insurance in rural India on self-medication & financial protection of the insured. Indian J Med Res 2016;143(6):809-820. doi: 10.4103/0971-5916.192075.
20. International Institute for Population Sciences - IIPS/India and ICF. 2022. India national family health survey NFHS-5 2019-21. Mumbai, India: IIPS and ICF. Available at https://www.dhsprogram.com/pubs/pdf/FR375/FR375.pdf.
21. Mao W, Tang Y, Tran T, Pender M, Khanh PN, Tang S. Advancing universal health coverage in China and Vietnam: lessons for other countries. BMC Public Health 2020;20(1):1791. doi: 10.1186/s12889-020-09925-6.
22. Ferrer RL, Palmer R, Burge S. The family contribution to health status: a population-level estimate. Ann Fam Med 2005;3(2):102-8. doi: 10.1370/afm.266.
23. Bliss RL, Mora AM, Krause PC. Does Insurance Status Affect the Management of Acute Clavicle Fractures? J Orthop Trauma 2016;30(5):269-72. doi: 10.1097/BOT.0000000000000498.
24. Farrell CM, Gottlieb A. The Effect of Health Insurance on Health Care Utilization in the Justice-Involved Population: United States, 2014-2016. Am J Public Health 2020;110(S1):S78-S84. doi: 10.2105/AJPH.2019.305399.
25. Dodwad SS. Quality management in healthcare. Indian J Public Health 2013;57(3):138-43. doi: 10.4103/0019-557X.119814.
26. Schaafsma F, De Wolf A, Kayaian A, Cameron ID. Changing insurance company claims handling processes improves some outcomes for people injured in road traffic crashes. BMC Public Health 2012;12:36. doi: 10.1186/1471-2458-12-36.