PalArch's Journal of Archaeology of Egypt / Egyptology

# "DATA ANALYSIS OF THE GOVERNMENT HEALTHCARE SCHEMES AVAILED BY THE LOWER INCOME POPULATION: A CASE STUDY OF DELHI"

**Dr. Pooja Singh[1], Dr. Seema Shokeen[2], Dr. Jasbir Singh[3]**
**[1,2,3]Assistant Professor, Maharaja Surajmal Institute, Affiliated to Guru Gobind Singh Indraprastha University, New Delhi, C-4, JanakPuri, New Delhi, 110058.**
**Email Id: - poojasingh@msijanakpuri.com[1], seemashokeen@msijanakpuri.com[2], jasbirsingh@msijanakpuri.com[3]**

**Dr. Pooja Singh, Dr. Seema Shokeen, Dr. Jasbir Singh, DATA ANALYSIS OF THE GOVERNMENT HEALTHCARE SCHEMES AVAILED BY THE LOWER INCOME POPULATION: A CASE STUDY OF DELHI, -- Palarch's Journal Of Archaeology Of Egypt/Egyptology 18(8), 3817-3823. ISSN 1567-214x**

**Keywords: Health, Health Insurance, Government Policies, Lower income Group, Family Monthly Income**

## ABSTRACT
It is well known fact that the health is a core pillar of the human development and is the key indicator for assessing the achievements in capability of enhancements and well-being. Good health is a cherished goal as it helps in realizing human capabilities and thus contributes to well-being. Studies show that healthy people are more productive and their contribution augments economic development and fuels growing incomes whereas ill-health stifles the full realization of psychological, social and economic capabilities, and has financial implications in terms of loss of income and productive time as well as the need to avail of medical care. The health sector of any country is always determined towards the betterment of facilities provided by them. The different organizations are always making different policies and schemes so that they can ensure the healthcare of each and every citizen. The Ministry of Health and Family Welfare of India is a dedicated ministry for all kind of healthcare and family welfare issues. The health sector policies can be broadly seen as the different insurances schemes, policies for distribution of medicine, organizing of health camps in rural area and more. If we consider our population and groups of people according to their location and income slab, then we can have a rough idea of the situation we have to deal while making a policy or schemes. The prime objective of the paper is to identify the various health benefits available to the lower income group population of Delhi. It focuses on the cross tabulation of the survey based result of the rural population of Delhi NCR conducted for 431 families to compare the income of the people and the health policies availed by them. This paper also works to find out the reasons for not availing the existing health schemes managed by government.

**JEL Classification: H10, H51, I10, I18**

## INTRODUCTION
India being the 2nd most populated country in the world with over 1.2 billion populations,

as reported in census report 2011 faces several challenges when it comes to the implication of new medical scheme for the people. Majority of the schemes and policies are made under the Government and not by the private organizations or independent body. There are certain trusts which offer healthcare facilities to the required people at a cheaper rate according to the area and group of people. The government of India is dedicated towards the betterment of health sector regarding all aspects. It may be OPD facilities, availability of hospitals, necessary drugs and dosage etc. The several schemes which are launched by the government every year or within a span of time include more and more people under the bracket of policies. The Indian government is spending more money on health sector relative to the previous years but is still far behind the other countries where people are enjoying health care facilities more than us comparatively.

Our lower income group population consists majority of households whose highest earning member earns less than 5000 per month. The Socio-Economic Census report states that around 75% of rural households highest earning member earns less than 5000 (SECC, 2011). While only 6% earns more than 10000. This can give us a brief idea of the condition in which the people are. These people can't afford medical care on their own hence they require the support of government through their schemes and policies for a better lifestyle. These are just the rural area statistics and as we come in the urban area, as per stated by the SECC report 2011 around 58% of the urban population doesn't have a stable or no income from any source. These people will also require the schemes and policies of the government for their health care and treatment (NFHS-4, 2015-16). The prime aim of the paper will be to look forward for this segment of the population and provide them with the best of the possible health schemes.

**Objectives of the study:**

1. To study the existing government health schemes.
2. To study the statistical relationship between the Family Monthly Income and the Various Government Policies availed by the target population.

**Research Methodology**

A health-related survey was conducted in various parts of Delhi for 431 families of urban poor to obtain various data related to the health care conditions of the respondents. The survey was conducted on diverse group, who were mostly employed as drivers and factory workers, though more than half of them were self-employed and some of them did not have any source of livelihood (Singh et al., 2017). The survey conducted has been cross-tabulated for Bivariate Data Analysis in a diverse number of ways, and Pearson's chi-squared test ($\chi 2$) has been performed to check the dependence of the tabulated parameters and depth of relationship between the two defined parameters of **Any Govt policies availed * Family monthly income** , for identifying the said objectives. Hence the research methodology is exploratory research based.

**Health Schemes**

The health schemes are a method to convey the best resources or the medium to avail the best resources. The health schemes can be of several types such as an insurance scheme, a medical centre policy, health camp organisation, distribution of essential drugs and medicine. In India the government through the MoHFW introduces all these kinds of schemes and tries to cover the maximum population.

The schemes like National Health Policy,Central Government Health Scheme,RashtriyaSwasthyaBimaYojana,PradhanMantriSurakshaBimaYojana, National Ambulance Services, National Mobile Medical Unit, Pradhan Mantri National Dialysis

Programme, Free Drugs and many more.

While there are several schemes dealing with different kind of population and problems there is not much efficient result that is being displayed. The different hurdles in execution of the schemes restrict them to be implemented to the fullest. The problems faced by the several schemes are:

- **National Health Policy**: Itaddresses the changing socio economic, technological and epidemiological landscape which is imposing the current and emerging challenges. It focuses on allocating major proportion of resource to primary cell. The main objectives of NHP are:
  - Assurance based approach
  - Micronutrient deficiency
  - Make in India
  - Application of digital Health
- **Central Government Health Scheme:** It is the model Health care facility provider for Central Government Employees & pensioners. The scheme has a large volume of beneficiary base, and open-ended approach of providing health care. CGHS provides allopathic, homoeopathic, ayurveda, unani system of medicine for treatment. The central government employees and pensioners can avail the facility of CGHS.
- **Rashtriya Swasthya Bima Yojana**: RSBY is the insurance scheme for the families coming under the BPL, Below Poverty Line, and category. This scheme provides a medical claim of ₹30000 per year through a third-party insurance company. The claim also provides a transport allowance of ₹1000 per year for the patient. The families registered in the BPL category can avail the beneficiary by enrolling themselves in this particular scheme. After their enrollment a card is issued in their name which is charged ₹30 every year, during the enrollment. The insurance company with the help of government officials set up registration camps to register people with the scheme.
- **Pradhan Mantri Suraksha Bima Yojana**: This scheme is open for all from the age of 18 years old to 70 years old. This scheme just requires the person to have a bank account which gives the permission to deduct ₹12 every year on 31st May as an installment. The insurance scheme will provide ₹2 lakh in case of death or full disability and ₹1 lakh in case of partial disability, accidentally (Economic Survey, 2017-18). The scheme auto debits the installments and hence doesn't require any kind of visit to office for renewal.

As we can see that the government policies are totally dependent on your monthly income and sometimes the place you work in. Policies like CGHS is restricted to the Central Government employees only, the policy of RSBY is restricted to people coming under BPL category only(Dewan& Singh, 2018). While there are other schemes which are open for all like PMSBY and policies made by government is also for the welfare of all.

**Bivariate Data Analysis of Any Govt policies availed * Family monthly income**

It has been proven over the ages that our minds find it easier to assess, analyze and understand data, status and progress in terms of numeric figure. Thus, it is important that we quantify the status of healthcare, the magnitude of dependence of various relationships and other factors, for us to better process the data. A couple of simple yet strong tools that facilitate this endeavor are namely survey and tabulation. A survey has been conducted and cross-tabulated for Bivariate Data Analysis in a diverse number of ways, as per requirement, and Pearson's chi-squared test ($\chi 2$) has been performed to check the dependence of the tabulated parameters and depth of relationship which the data intends to imply(Dewanet al., 2018). The sample size of 431 families was surveys to find interesting results upon application of the Data Analysis.

Cross tabulation helps to understand how two different variables are related to each other. For example, suppose we wanted to see if there is a relationship between the Awareness of

vaccination of the survey responder and if having Immunized Children is important. Using the survey data, we can count the number of people who have the Awareness of vaccination and also who have Immunized their Children, and the number of people being aware about vaccination but have not Immunized their Children or think that Immunizing their Children is not important (Singh, 2018). We then take this information and create a contingency table, which displays the frequency of each of the variables displayed below showing Frequency Distribution of Awareness of vaccination Vs. Immunized Children. Bivariate analysis is one of the simplest forms of quantitative (statistical) analysis It involves the analysis of two variables (often denoted as *X*, *Y*), for the purpose of determining the empirical relationship between them.

As per the survey conducted, there were a total of 431 respondents out of which 248(57.5%) respondents were valid and 183(42.5%) were found to be missing. This clearly shows that only 57.5% population had the awareness towards the available government policies and 42.5% population was unaware. So, there is a big need of creating awareness among the people towards the policies of the government which will further convince more and more people to get insured.

**Case Processing Summary**

| | Valid | | Missing | | Total | |
|---|---|---|---|---|---|---|
| | N | Percent | N | Percent | N | Percent |
| Any Govt. policies availed? CGHS, RSBY, RGS, PMSBY, Others * Family monthly income | 248 | 57.5% | 183 | 42.5% | 431 | 100.0 % |

**Table 1: Frequency Distribution of Any Govt. policies availed Vs Family monthly income**

The relationship of monthly income of the family and the awareness towards the government policies were tried to be identified. It was observed that the low-income group families (earning below 5K) had a very few people (Singh et al., 2019), only 23% covered under the private policies as compared to 44.2% people which belong to the income category of more than 15K monthly. Whereas there were only 27.8% people who have availed any of the government policies belonging to the income group of more than 15K. It can be also seen that 20% people in the income group of 5K – 10K and 26.3% people belonging to income group of 10K-15K who have opted for government policies.

| | | **Family monthly income** | | | | |
|---|---|---|---|---|---|---|
| | | below 5K | 5K-10k | 10k-15k | Above 15k | Total |
| **Any Govt. policies availed? CGHS, RSBY, RGS, PMSBY, Others** | NA | 22 | 34 | 27 | 17 | 100 |
| | CGHS | 0 | 1 | 5 | 6 | 12 |
| | RSBY | 0 | 5 | 4 | 1 | 10 |
| | RGS | 1 | 3 | 4 | 5 | 13 |
| | PMSBY | 0 | 8 | 6 | 5 | 19 |

| | | | | | | |
|---|---|---|---|---|---|---|
| | Others | 7 | 34 | 26 | 27 | 94 |
| Total | | 30 | 85 | 72 | 61 | 248 |

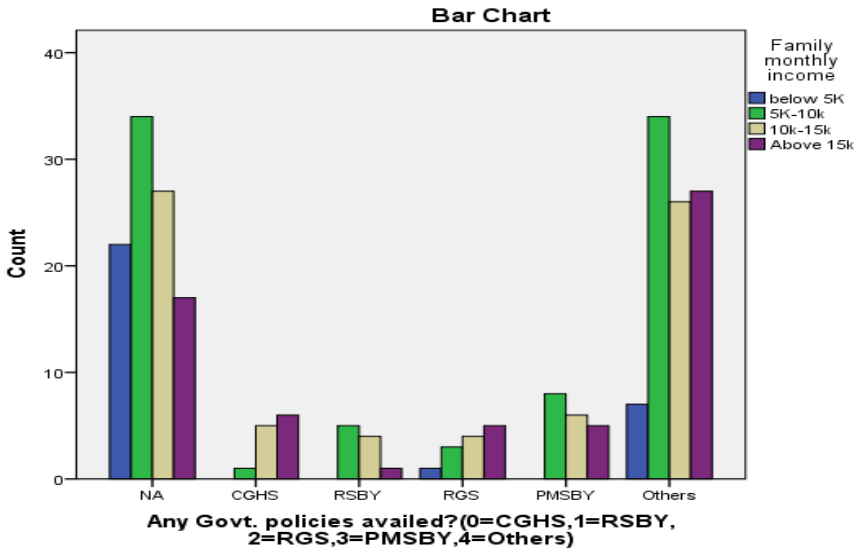
**Table 2: Government policies availed Vs Family monthly income (Cross Table)**

**Chi-Square Tests**

| | Value | Df | Asymptotic Significance (2-sided) |
|---|---|---|---|
| Pearson Chi-Square | 28.333[a] | 15 | .020 |
| Likelihood Ratio | 32.489 | 15 | .006 |
| Linear-by-Linear Association | 6.392 | 1 | .011 |
| N of Valid Cases | 248 | | |

**Table 3: Chi-Square Analysis for Government policies availed Vs Family monthly income**

We can observe that the value of ($\chi$2) Pearson Chi-Square = 28.33, p = .0001. This tells us that there is statistically strong significant association between the Family monthly income and Govt policies availed. Hence, we can say that the kind of the **policy availed depends on the monthly income of the family.**




The data mentioned above shows that even if there are different government schemes for all kind of people in the health sector but still a large share of population is still not benefited regarding the health facilities.

**Observations as per the study performed**

The data analysis and the cross tabulation performed above clearly shows that even though there are several government health schemes which are prevailing but still there is not much awareness among the people for the different government policies. This lack of awareness is one major reason which has actually debarred a major rural population of Delhi to be benefitted from these ongoing schemes. The major reasons for this unawareness are listed below:

- **Lack of Advertisement**: Government failing to advertise the policies in the concerning areas. We can see all kind of advertisement on social media and television but we should consider the fact that the concerned person is not well aware of these things hence might be missing out from these. Hence the government should take steps to organize camps in the concerning areas more often so that the message is delivered to them loud and clear.
- **Registration**: In schemes like RSBY we can see that the government has focused on every year minimum cost premium of the scheme. This is conducted by the officials on a particular day (Annual Report Health and Family Welfare 2017-18). While there is no fixed criteria or day for this kind of process, people might not be available for the specific day hence no registration.
- **Cost coverage:** The schemes can be seen as not effective one since the cost covered in the scheme RSBY is just ₹30,000 per annum. While the Out of Pocket Expenditure share is still at 62% as per National Health Accounts report (NHA 2014-15). Hence, we can see that an amount such as ₹30,000 will not be sufficient all the time.
- **Infrastructure**: While the government is launching new policies every day, we can see the ground reality being unchanged as India is facing shortage of 600000 doctors and 2 million nurses as stated by the Center for Disease Dynamics, Economics and Policy(CDDEP, 2019).

## CONCLUSION

Health is wealth" is a well-known proverb and has motivated many people in being healthy. The same can be applied to a country where the Healthy people are a great asset to the country. They will take part in the development of the country. Hence the government should also take care of the fact that they provide schemes and policies for the betterment of society. They should ensure that the scheme is not only benefited by people who can understand it or reach it but even to them who doesn't have the privilege to keep an eye on every government announcement. Whether a household is earning more than ₹15000 or less than ₹5000 every person who requires the facilities should be able to avail it.

As a result of the cross tabulation analysis performed it is clearly visible that around 50% of people were unaware of the policies so we should create awareness among them so that they are benefited as much as possible. Moreover, considering the fact that only 23% of people who fall in the income category of less than 5k (₹5000) per month were availing the facilities. This data clearly reveals that the governments is working quite hard to improve the health facilities by introducing different policies for its citizens but are failing to successfully implement them particularly for the lower income group population. They are the ones who require these kinds of policies the most hence the government should take up the necessary steps for enhancing the health schemes being launched successively.

## REFERENCES

1. Ahuja, R. (2004).Health Insurance for the Poor in India. Working paper No 123.*Indian Council for Research on International Economic Relations,* 1-28.

2. Indian Public Health Standards (IPHS) Guidelines for Primary Health Centres Revised (2012). *Directorate General of Health Services, Ministry of Health & Family Welfare, Government of India*.https://nhm.gov.in/images/pdf/guidelines/iphs/iphs-revised-guidlines-2012/primay-health-centres.pdf

3. National Rural Health Mission, Mission document, Government of India (2005 – 12). https://nhm.gov.in .

4. Delhi Human Development Report, Health and Health care, 2013.http://www.ihdindia.org › hdidelhi › DHDR

5. Ministry of Health and Family Welfare (2014-15). *Rural Health Statistics*. http://wcd.nic.in/sites/default/files/RHS_1.pdf

6. Anand, S. &Fan,V. (2016). The Health Workforce in India. *Human Resources for Health Observer Series No.16*, World Health Organization.

7. The World Bank (IBRD-IDA) (2016). *India's Poverty Profile*.https://www.worldbank.org/en/news/infographic/2016/05/27/india-s-poverty-profile .

8. National Family Health Survey – 4, India fact sheet (2015-16). *Ministry of Health & Family Welfare, Government of India. International Institute for Population Sciences*.http://rchiips.org/nfhs/nfhs-4Reports/India.pdf

9. Ministry of Health and Family Welfare, Annual report (2015-16), *Information, Education & Communication*. https://mohfw.gov.in/sites/default/files/17563256478856633221.pdf

10. Shokeen, S., Banwari, V. &Singh, P. (2017). Impact of Goods and Services Tax Bill on the Indian Economy. *International Journal of Finance*, 11(7), 55 – 63.

**11.** Singh, P., Shokeen, S. &Panjwani, M. (2017). Data Analysis of Health Conditions of Lower Strata of Delhi's Population. *International Journal of Research in Commerce Economics and Management*, 7(9), 65 - 78.

**12.** Draft Pharmaceuticals Policy (2017). *Department of Pharmaceuticals, Indian Pharmaceutical Industry*.https://pharmaceuticals.gov.in/policy

13. Dewan, K.K. & Singh, P. (2018). EmpiricalStudy of HealthcareIndicators - A Case Study of Delhi. *International Journal of Engineering and Science Research (IJESR), Special issue of Second International Conference on Research and Innovation Trends,* Article No – 63, 398 - 404.

14. Dewan, K.K., Singh, P., Ahmad, I.&Kaur, J. (2018). Primary Healthcare of the Poor in Delhi – An Analytical Study. *International Journal of Engineering and Science Research, Special issue of Fourth International Conference on Research and Innovation Trends*, Article No- 13, 67 – 73.

15. Singh, P. (2018). Recognition of Hospital Preference of People of India: A Computer Based Review analysis. *International Journal of Computer Science and Information Technologies,*9 (5), 115-118.

16. Singh, P., Shokeen, S., Kriti& Gupta, K. (2019). Prediction Analysis of the Primary Health Conditions of the lower Strata Community using Machine Learning. *International Journal of Recent Technology and Engineering*, 2019, 8(1), 2277-3878.

17. India Year book 2018. https://www.pdfdrive.com/india-year-book-2018-pdf-e54263891.html

18. National Health Accounts(NHA) 2014-15.https://main.mohfw.gov.in/sites/default/files/NHA_Estimates_Report_2015-16_0.pdf

19. Annual Report of Health and Family Welfare 2017-18.https://main.mohfw.gov.in/publications/annual-report-department-health-and-family-welfare-2017-18 .

20. Socio – EconomicCaste Census 2011https://secc.gov.in/.

21. Economic Survey of India 2017-18.http://www.indiaenvironmentportal.org.in/files/file/economic%20survey%202017-18%20-%20vol.1.pdf.

22. Center for Disease Dynamics, Economics and Policy (CDDEP) 2019.https://cddep.org/publication-type/report/