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INCOME, A MEASURING DEVICE FOR HEALTH EXPENDITURE AND FAMILY HEALTH STATUS

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Abstract
Introduction: A person's income is a true measuring tool to identify their health status and, ultimately, a nation's economy. It has been estimated that an average salary person's expenses are according to their monthly income. It also helps to measure living standards and expenses other than basic needs. Health is the factor on which every family spends money, irrespective of their willingness.

Aim: Our study aims to correlate the income of different professionals and their expenses on their health. A good salary person expenses more on health. This study helped to find the correlation between income, health, and status of health among the sample population.

Methodology: The quantitative data were collected from careful sample selection. The designed questionnaires provide information regarding accurate salary, medical expenses, health expenses and the current status of family health.

Results: *A person's income directly relates to health expenses and health status. They facilitate their family's expensive medical assistance and nutritionist in case of good salary packages and stand on excellent health status. The reverse is in the case of low- income families and their health status. Income directly relates to medical assistance and facilities a family can acquire.*

Keywords *Income, Health, Medical assistance, Salary*

Introduction

Many development efforts have been made in Pakistan for the last fifteen years to achieve sustainability in economic status. Unfortunately, poverty has remained the same or increased (Mustafa 2003). Many reasons can easily highlight the current economic stability among the population (Nazir and Afza 2009; Xu et al. 2023). Pakistan's political, security, and social systems have improved per inhabitant, as reported in the early 20th century (Shaikh and Hatcher 2005). Gross domestic product has improved over the past two decades but has declined recently (Hussain, Mushtaq, and Saboor 2009).

Many attempts have been made to increase investment in economic development and high political commitment to provide health by different rules and regimes. Some progress has been made in Pakistan's universal access to health care, as found in reductions in maternal and child mortality reflected in recently reported literature (Akseer et al. 2016). The country is determined to promote the success of its socioeconomic development. These include improving health and education and providing social security for those who need it (Miditerranean 2021). The income statistics of the average Pakistani were found to decline more in previous years and remain the same in the case of a high-income person, irrespective of inflation on basic items needed for every person (Sher, Ahmad, and Safdar 2012).

With the development of medical sciences and health technologies, the average life expectancy among developed and under-developed countries increased in the 20th century. Factors such as better nutrition, awareness of health issues, good sanitation, improving medical technology and strengthening public health infrastructure gradually increase human life expectancy (Frenk et al. 2006). These developments have allowed economic growth and its stable state through human capital accumulation (Majeed and Ahmad 2008). Good health is one of the most important determinants of Human capital (Shuaibu 2016). It can be said that better health impacts the performance of the nation's economic growth (Pereira et al.

2021).

Study on income distribution and savings in Pakistan has very limited data. In the past several articles appeared that helped to investigate the income from 1960-1995 (Farooq 1966; Kurji, Premani, and Mithani 2016). However, due to data limitations, we have covered a specific geographic area (Pakistan, Karachi) and demographic group (top professions) in our study. At the same time, the current document deals with all personal income, medical expenses, health, and nutrition care per sample in the year 2022.

Health status positively impacts economic growth and measures the level of skills acquired by the population (Ali, Sharif Chaudhry, and Farooq 2012). Health as a key determinant of human capital is of great interest to the following study. Health awareness and its measures among the population due to technology usage and ease of information transference has increased among the world's average population (Organization 2000).

This study has theoretical and empirical perspectives to measure health in relation to a person's gross income. The increase in health and income is considered a rate of economic growth and well-being of a country. The literature has several mechanisms for finding the relationship between health and economic growth (Casasnovas, Rivera, and Currais 2005;

Morand 2005).

The Pakistan Demographic and Health Survey (PDHS) 2006-07, part of the World Demographic and Health Survey project, is the largest household survey ever conducted in Pakistan to collect health information and outcomes demographics (Pakistan 2008). The government of Pakistan has announced a basic salary of about a minimum of 25,000, but unfortunately, our samples were collected with a minimum salary of 20,000 on average in labor (Cheema 2006). This has indicated an alarming condition in the current situation and may increase the casualty in the low-income population. However, this has not been investigated with statistical analysis in our designed study but needs to highlight to consider by concerned authorities. Our aim of this investigation is to highlight the importance of income and health status, as the literature survey has indicated this area is least investigated among researchers. This paper helped to open new doors of investigation that further help policymakers and researchers to improve income and health measures, specifically in the low-salary population.

Methodology

The study examines the impact of income in different professional fields in Pakistan and their expenses on health. The

data collection technique was based on a survey of their per-year income, hospital visits, and average annual expenses on all kinds of health assistance. This study used the quantitative method in data collection. The following methods were applied to the research:

- Conducted detailed investigation to select the homogenized sample or respondents to collect valid data, allowing 4-5 respondents to each group.

- The questionnaire was distributed with assistance to get the actual figure in numbers.

- The fixed list of questions has been evaluated in standard order for each group in the survey.

- The assistance method and questionnaire are useful for both literate and illiterate participants.

- Health status has been found by measuring their conditions with the help of a medical assistant. The questionnaire includes information that helps to identify their overall family health status. The status is given numerics from 1-4. Number one indicates excellent health status.

- Clarify the question and gather more relevant information from the sample.

The collected data is noted with code numbers, hidden personal information, and job details. It has made sure participants take only figures or numbers from their questionnaires, and they feel free not to share their work. Checklists, interview modalities, group discussions, and quantitative methods, including their detailed family members and their actual expenditure information, have been incorporated. Our samples have family members of 4-5 only, and their medical expenditures are not paid by their organization or insurance companies. We have focused on the actual expenses of participants.

Result and Discussion

This study has been designed to assess the effect of salary on health expenses and status. The questionnaire helped to figure out the average salary of the sample, and they were added up according to their job domains in our survey.

Engineers

In our study, four families were selected, and any of the heads, either male or female, was an engineer by profession and working in the same post. Their pay slip confirmed their monthly income, ensuring their medical and health expenses were paid from their salaries. The health expenses include their gym and diet regulators like

protein, calcium, and others. Table 1 represents the real expenses of the Engineers Family on their medical and health from their salaries.

Table 1 Salary and expenditure of Engineer's Family

Family No.	Salary per month (Rs) Lac	Monthly expenses on medical and health
A	145000	12500
B	155000	12000
C	140000	11000
D	160000	13000

Doctor

The paramedical staff of many relaxations from their organization, and they bear the expenses privately from other hospitals offers free medical and drugs to their families. We have collected the data from those four *MBBS* doctor's families who have not been offered any medical sources. Table 2 shows the data collected from four families and their real expenses without their workplace.

Table 2 Doctor's expenses on health and medicine from their salaries

Family No.	Salary per month (Rs) Lac	Monthly expenses on medical and health
E	95000	4500
F	105000	5000

G	90000	5500
H	110000	5000

Bankers

In the private banking sector, the employees get low salaries but get job benefits and insurance. In data collection, we selected five families working in five private banking sectors. The salaries included in the data are net salaries after every detection, including tax, loans, and others. The reason is to find the amount they have in their hands and the expanses they do without assistance. Table 3 indicates the amount Bankers got after all kinds of detection from their salaries and their expenses on medical and health.

Table 3 Banker's Family expenses on health and medicines per month from their salaries

Family No.	Salary per month (Rs) Lac	Monthly expenses
I	160000	16000
J	166000	16000
K	170000	15000
L	166666	17000

Administrators

For the administration, we have selected similar posts but have a different duration of their jobs. The data was collected after detecting all allowances and medicals they offered, as done with bankers' data. Table 4 represents the average income of a person working in

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administration with a similar designation but little difference in their job experiences.

Table 4 *Health expenses and salaries per month of Administrators*

Family No.	Salary per month	Monthly expenses on medical and health
M	90000	15000
N	110000	14000
O	105000	15000
P	95000	14666

Officers in Private and Public Sectors

The data collected from private and government officers are shown in Table 5. Similar practices have been done during the investigation. The net salaries were targeted, and health expenses included their luxury expenses like the nutritional diet they used to take, the exercise clubs fee they joined and their assistance from any dietary specialist.

Table 5 *Net salaries of officers in the Private and Public Sector with their health expenses*

T1	125000	11000	T2

Labor

The data collected from laborers are includes only their medical expenses, as no family has been found to spend any other shown in Table 6, the health expenditure nutritional health expenditures.

Table 6 *Monthly salaries and health expenses of Laborer's family*

Family No.	Salary per month	Medical a...
U	20000	4000
V	18000	3000
M	22000	5000
X	20000	4664

After gathering data from individual families according to the work domain, the data were gathered in Table 7. It represents all categories' average salary per annum and their health expenses.

Table 7 Combine data on salaries and health expenses per year among all samples

	The average income per yea... (Rs) Lac
Engineer	18
Doctor	12
Banker	20
Administrator	12
Officers in the Private sector	15

Officers in the Private sector			Officers in the Public sector		
Family No.	Salary per month	Medical and Health Expenses	Family No.	Salary per month	Medical and Health Expenses
Q1	120000	10000	Q2	116000	9000
R1	125000	9000	R2	115000	8000
S1	130000	9500	S2	117000	8000

Officers in the Public sector	14
labor	2.4

been designated by the medical assistant

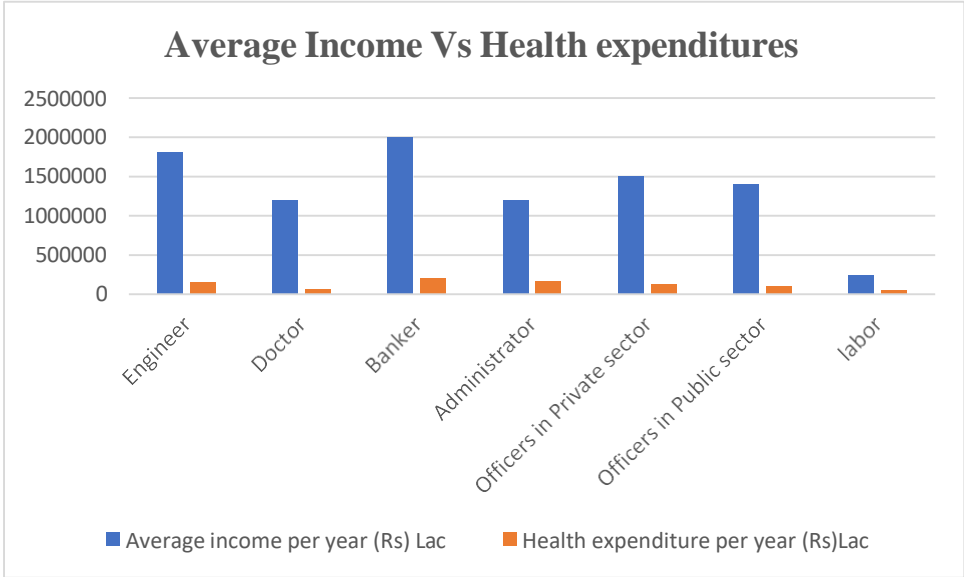and shown by the number, and they have

Figure 1 Represent the Bar chart between average income and health expenditures

added their questions to the questionnaires.
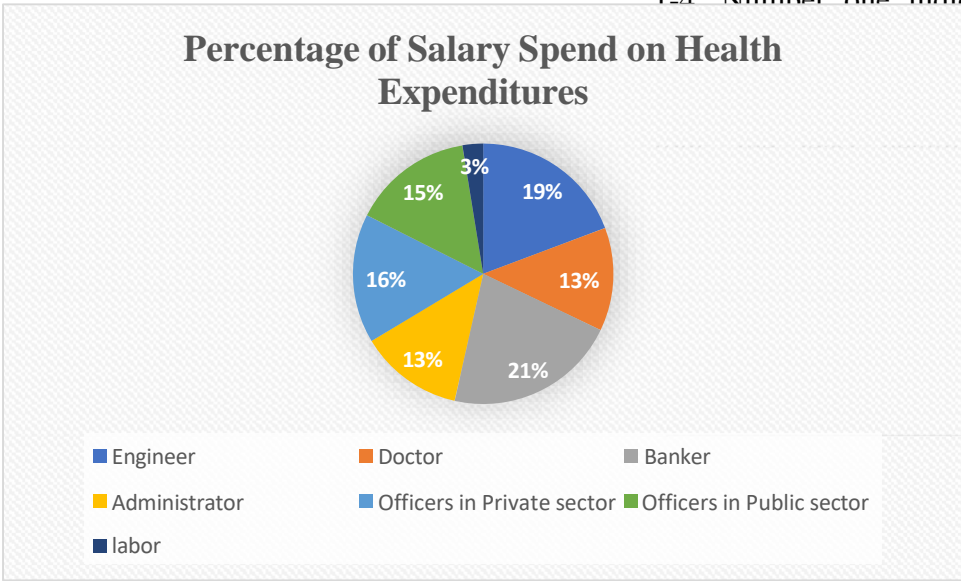
The health decline was in ascending order

1-4. Number one indicates the excellent

...mily members, and

...status of family

Figure 2 Represents the percentages of health expenses spent from their salaries.

Table 8 represents the health status and

visit per month given in each group of

samples after investigating the

questionnaire data. This health status has

...on salaries, health

...its, and health

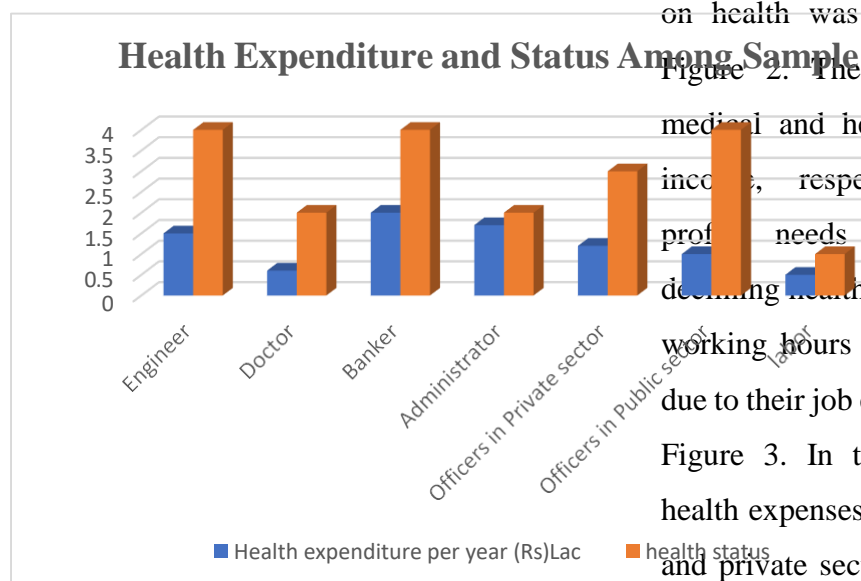|	The average income per year (Rs) Lac	Health expenditure per year (Rs)Lac
	8	1.5
Doctor	12	0.6
Banker	20	2
Administrator	12	1.7
Officers in the Private sector	15	1.2
Officers in the Public sector	14	1
labor	2.4	0.5

Figure 3 Comparison of health expenditures and health status among the sample

Our study aims to find the relationship between income, health expenditures, and family health status. the data has been collected from individual samples like Engineers, doctors, bankers, etc. Tables 1-6 represent the data on average monthly salaries and their family members' medical and health expenses. The monthly collected data help to evaluate the yearly income and their average medical expenses, as shown in Table 7. The relationship between income and health expenses is indicated in Figure 1. It clearly showed a good-income person spends more money on health assistance. In Figure 1, the income status of engineers and bankers was high, and they spent more money on good health than other groups in the sample

(Figure 3). However, the amount they spent on health was different, as indicated in Figure 2. They spent 19 and 21% on medical and health assistance from their income, respectively. Doctor's health profession needs fewer expenses, and a declining health status indicates their tough working hours and unsafe health measure due to their job environment, as indicated in Figure 3. In the case of administrator's health expenses 13%, the officers in public and private sectors indicate almost similar expenses 16 and 15% but have a difference in health status, as shown in Figure 3. Our results indicate the worst health status in the case of laborers as they have the least income and least facilitate poor health assistance to their families and face a decline in the health status of their families, showed by number four.

Conclusion

This study indicates a relationship between a family's expenses on health assistance depends on income. A person with a good salary seeks quality health and medical assistance compared to someone with low packages. Our study has categorized into four different salary ranges. High-income persons like engineers, bankers, doctors, and

administrators fall in the second category with medium-high salary packages, the medium category was of officers in private and public sectors, and the last one was the labor division taking the lowest packages. It has been concluded from the above data that the highest income person expense more on health, like the data of Engineers and bankers showed excellent family health status, and the least health status was found in labor families due to low income and the least expense on health.

Recommendations from current studies

- A national survey is needed to find the average salary among the population.

- Economic researchers were higher to find the income impact and quality of health assistance.

- Our study found poor medical assistance in the case of low income. It should be equal for every individual nationwide.

- Inflations on basic items needed by every person and the low salary were alarming. However, the government has

announced a basic salary of about a minimum of 25,000.

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