BMJ Open Quality

Utilisation and barriers of social health protection program among its enrolled population of federally administrative areas, Pakistan

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To cite: Farooqui MA, Nabeel Ali K, Riaz S. Utilisation and barriers of social health protection program among its enrolled population of federally administrative areas, Pakistan. *BMJ Open Quality* 2024;**13**:e002375. doi:10.1136/bmjoq-2023-002375

Received 13 April 2023
Accepted 6 October 2023

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ABSTRACT

Objectives The objective of this research is to analyse the extent of utilisation and identify the barriers faced by individuals in the Federally Administrative Area of Pakistan concerning the Social Health Protection Programme.

Methods A cross-sectional study was carried out, enrolling permanent residents from Islamabad, Gilgit-Baltistan and Azad Kashmir. The sampling frame was provided by the Sehat Sahulat Programme (SSP) office in Islamabad, using a simple random sampling method. The study used the 'WHO Health Survey 2002' tool, which is validated, to assess the utilisation and barriers of the Social Health Protection Programme.

Results The study findings indicated that approximately 12% of the participants used the Social Health Protection Programme, while 6.5% experienced barriers in utilisation. The identified barriers were further classified into seeking (3%), reaching (0.25%) and receiving care (3.25%) barriers. A χ^2 test of association revealed significant statistical associations between card utilisation and sociodemographic factors such as age and level of education (p value <0.001). Additionally, statistically significant associations were observed with hospitalisation in the last year, duration and frequency of hospitalisation (p value <0.001). However, no statistically significant association was found between the utilisation of SSP and utilisation barriers.

Conclusion The SSP had a low utilisation ratio due to the fact that half of the enrolled households were satisfied with their health conditions and did not feel the need for hospitalisation.

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ This study contributes to the existing research on the potential benefits of Social Health Protection Programmes in reducing healthcare-related financial burden and poverty in Pakistan.

WHAT THIS STUDY ADDS

⇒ This study adds to the existing knowledge by identifying a utilisation rate of 11.8% and due to the fact that half of the households enrolled in the Sehat Sahulat Programme were content with their health conditions, they did not require hospitalisation, leading to a low utilisation rate of the programme.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ Policy makers and practitioners can use this information to implement targeted strategies that can improve programme utilisation and ensure equitable access to healthcare services, which can ultimately reduce financial burden and prevent households from falling into poverty.

INTRODUCTION

Ensuring the well-being of the community is crucial for both the social and economic progress of a country.[1] While service coverage has made significant strides over the past two decades, a growing percentage of individuals grapple with financial hardships due to out-of-pocket health expenses. These challenges have been exacerbated by the ongoing global economic downturn, resulting in increased poverty and decreased incomes. In this backdrop, health systems are facing the arduous task of providing uninterrupted care, potentially endangering the progress made towards achieving Universal Health Coverage (UHC). The repercussions of the COVID-19 pandemic are further anticipated to hinder the pursuit of comprehensive healthcare access, particularly among marginalised communities.[2] The World Health Report on Health Systems Financing in 2010 underscores this concern, revealing that around 150 million individuals worldwide face financial catastrophe annually due to healthcare expenses, pushing approximately 100 million into poverty.[3] Thus, it is no surprise that UHC has emerged as a pivotal target within the Sustainable Development Goals (SDGs) framework.[4]

India, recognising the significance of UHC, has adopted diverse strategies, ranging from cost-free and subsidised healthcare initiatives to Social Health Insurance Schemes and Government-Funded Health Insurance Schemes (GFHIS). One notable scheme is the GFHIS introduced in 2003, exemplified by the enduring Rashtriya Swasthya Bima

Yojana (RSBY), designed to provide a safety net for vulnerable segments against health-related shocks.[5] In a similar vein, Pakistan, sharing sociodemographic similarities with India, has introduced its own social health protection endeavour—the Sehat Sahulat Programme (SSP), formerly known as the Prime Minister's National Health Programme. This initiative aims to extend financial security to Pakistan's vulnerable populace by means of health insurance. The rationale behind this strategic move aligns with the global commitment to fulfil SDG 3, which centres on elevating health and well-being.

The programme's initial focus was directed towards disadvantaged districts, identified using the Benazir Income Support Programme (BISP) scoring index of <32.5 Proxy Means Tests (PMT)—an indicator of daily incomes below $2. However, the inaugural phase (2016–2018) encountered challenges stemming from its reliance on an outdated and incomplete socioeconomic registry from BISP. This limitation inadvertently led to the exclusion of deserving beneficiaries and sparked concerns about eligibility.

As the programme evolved, its scope expanded during 2018 and 2019, encompassing regions such as FATA, Tharparkar, and subsequently Azad Jammu and Kashmir (AJK). In light of the programme's favourable reception and service utilisation, the third phase of the SSP was launched in January 2022. This forward-looking initiative extended coverage to include the entire populations of Gilgit-Baltistan, AJK, Khyber Pakhtunkhwa (formerly FATA) and the Islamabad Capital Territory. This progression aligns seamlessly with the roadmap to achieving UHC by 2030, a critical component of the SDGs.[6]

METHODS

A cross-sectional study was undertaken spanning 6 months, August 2021 to January 2022. During this timeframe, the districts falling under the poverty threshold included Kotli, Islamabad, Baltistan, Hunza, Astore, Ghanche and Ghizer. The selection of participants employed a simple random sampling approach, with the sampling frame being acquired from the Federal SSP office situated in Islamabad. The data collection methodology involved telephonic interviews, using the sampling frame provided by the Sehat Sahulat office. Figure 1 explains the entire Sampling Frame Process (see figure 1 in the separate figure document).

The sample size of approximately 384 was determined based on a 50% prevalence and a 5% margin of error with a 95% CI. The additional 5% accounts for variability in the sample size due to non-response rate, resulting in a final sample size of 400. The data collection instrument included the World Health survey 2003 to find out the utilisation and barriers of the programme. The 'World Health Survey' questionnaire is a very reliable, consistent and stable tool. It's reliability and validity are confirmed in studies.[7] The questionnaire was translated into Urdu for telephonic interview. The dependent variable was utilisation of SSP and independent variable were sociodemographic variables and barriers in utilisation. The participant was defined as the hospitalisation of any member of the enrolled household in the last 1 year. The barriers were divided into three broad categories of barrier in seeking, reaching and receiving care.

Data were collected via telephonic interviews. A complete sheet of filled questionnaire was maintained along with summary of household available. The data were entered in the software called SPSS V.26.0. The dependent variable was dichotomised as '0' meaning did not use the Sehat Sahulat card and '1' as used the Sehat Sahulat card. χ^2 test was used to see the association between the qualitative variables.

RESULTS

The sample size of 1000, obtained through a simple random sampling approach, encompassed the entire population of 282,647 residing in the federally funded areas. It provided essential demographic and health-related insights. In terms of gender distribution, males constitute a significant proportion (89.5%), while females represent a smaller segment (10.5%). The age composition highlights a substantial population aged 31–60 years (74.8%), followed by 15–30 years (19.3%) and 61–90 years (6.0%). Educational levels reflect diverse attainment, with notable percentages in the No formal education (23.3%), primary (22.3%), matric (31%), intermediate (11.5%) and graduation and above (12%) categories. Geographically, the distribution showcases representation from different districts, particularly in Baltistan (21.8%), Islamabad (20.5%) and Ghizer (19.8%). Family types encompass joint families (89.5%) and nuclear families (10.5%). Chronic disease prevalence is generally low, with the majority reporting no chronic conditions (88.3%). For those with chronic ailments, renal issues (3.3%) are most frequent, followed by diabetes (3%) and asthma (0.8%).

The research assessed the healthcare utilisation patterns of households enrolled in the SSP. As part of the questionnaire, respondents were asked about their hospital preferences, specifically whether they visited private or government hospitals. Based on the responses obtained, it was observed that approximately 91.3% of the households using the Sehat Sahulat card preferred government hospitals over private ones. It also highlighted that the majority were not hospitalised (88.3%), with 11.8% having been hospitalised in the last year. Admission frequency is predominantly one-time (11%), with a minority experiencing two admissions (0.8%). Reasons for admission include minor surgery (10.5%), while the average duration of stay varies, with most stays lasting 3–5 days (8.8%).

To measure the barriers, we used a questionnaire in which respondents were asked specific questions related to their experiences when seeking healthcare. It included predefined categories, namely 'Barrier Seeking care', 'Barrier in Reaching' and 'Barrier in Receiving'. Respondents selected the relevant barriers they encountered

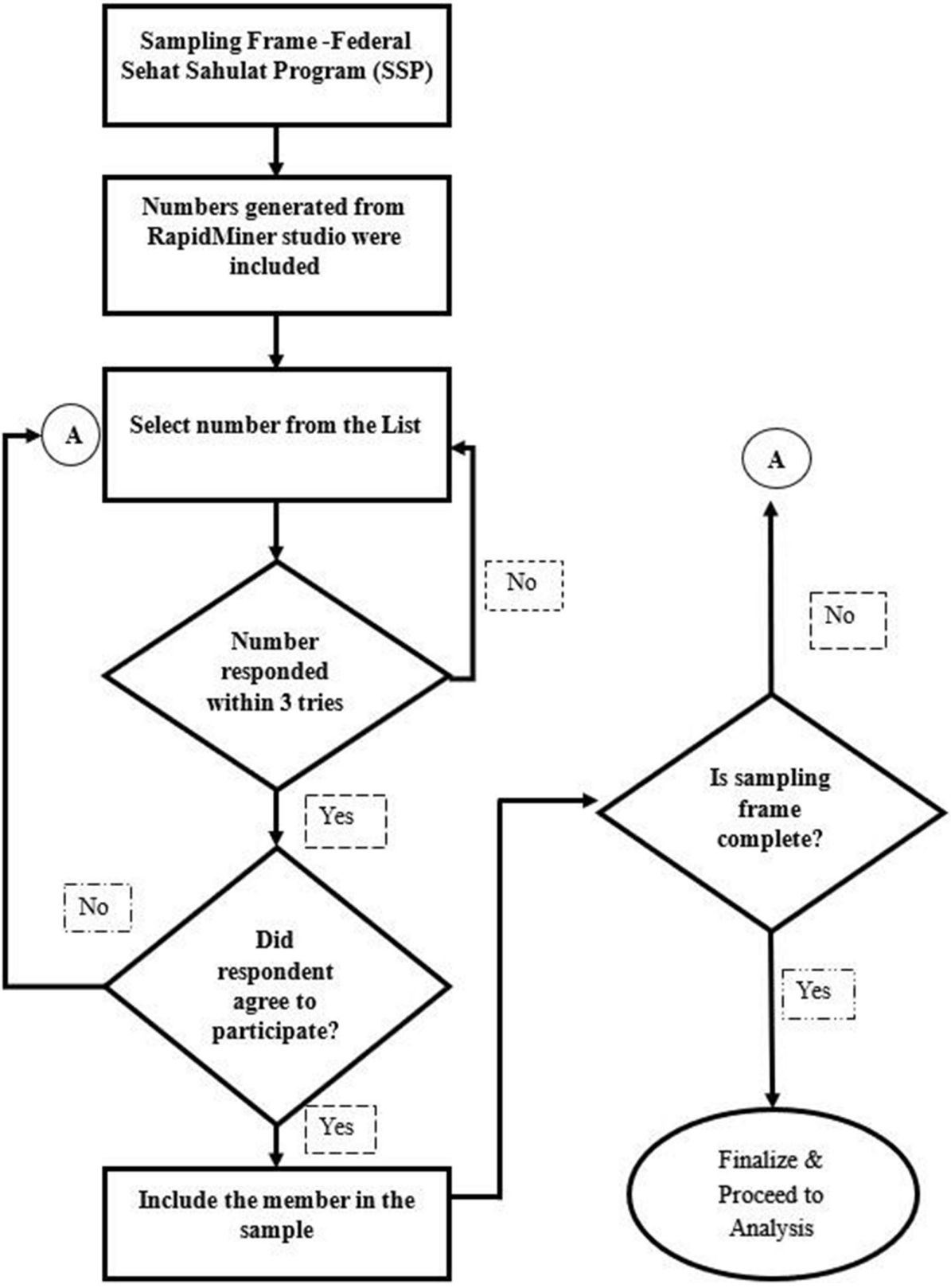

Figure 1 This diagram illustrates the comprehensive process of creating a sampling frame, commencing with the acquisition of the sampling frame data from the Federal Sehat Sahulat Programme. Random sampling techniques were employed to generate a set of numbers from this frame. In cases where the initially selected number did not yield a response after three attempts, the process continued by moving to another number. This iterative approach was repeated until a sample size of 400 was achieved.

from these categories. The overall barriers of 6.5% were calculated by determining the proportion of respondents in the total sample (n=400) who reported facing one or more of these barriers during their healthcare-seeking process. Sehat Sahulat card utilisation among the sampled population stood around 11.8% as only 47 out of 400 households had used the card. Barriers to healthcare included barrier in reaching care (0.25%), seeking care (3.0%) and receiving care (3.25%), offering insights into challenges faced (table 1).

Satisfied health conditions meant that the majority of the enrolled household did not feel the need for hospitalised thus resulting in low utilisation ratio of the Sehat Sahulat card as seem in figure 2. Consequently, low utilisation could not be linked with any of the identified barriers. From a total of 400 participants, 32.3% (129 individuals) reported not having a health card, while 67.8% (271 individuals) confirmed having one. It's essential to recognise that the data were collected from enrolled beneficiaries. However, potential recall bias might have affected responses. Some participants indicating the absence of a health card could have forgotten or mixed-up details, influenced by the telephone interview method. This confusion might stem from linking the programme with others like BISP or Ehsaas.

It's a comprehensive comparison between three main groups which are 'No', which means people didn't use it; 'Yes', which shows those who did; and 'No card', which is for people who are enrolled but don't know. The data indicate statistically significant across different demographic categories, including age groups, education levels, and districts.

Individuals aged 31–60 years show a greater programme utilisation rate at 8.3%, in contrast to the lower utilisation rates of 1.8% for both the 15–30 and 61–90 age groups. A similar pattern is evident in education levels, where higher utilisation is associated with individuals having no formal education. Furthermore, the data emphasise geographical variations, indicating that the programme is most used in Islamabad at 3%

Importantly, among those who didn't go to the hospital, 56% and 32% might have mixed up the programme with others like BISP or Ehsaas, making them not remember it. But for those who were in the hospital, 11.8% of those who knew they were part of the programme actually used it. Furthermore, examining admission frequency reveals that for those admitted once, 11% used the programme. Minor surgeries were associated with a higher utilisation rate (10.5%) compared with heart disease cases (1%). Distinct hospital types also show significance, with government hospitals leading in utilisation (10.8% vs 1% for private hospitals). Additionally, longer hospital stays, ranging from 3 to 14 days, exhibit higher utilisation rates (8.8% and 1.5%, respectively). Each category's significance is underscored by the associated p value (<0.001), affirming substantial relationships (table 2).

Table 1 Results of sociodemographic

Variable	Categories	Frequency (%)
Gender	Male	358 (89.5%)
	Female	42 (10.5%)
Age	15-30 years	77 (19.3%)
	31–60 years	299 (74.8%)
	61–90 years	24 (6.0%)
Level of education	No Formal Education	93 (23.3%)
	Primary	89 (22.3%)
	Matric	124 (31%)
	Intermediate	46 (11.5%)
	Graduation and above	48 (12%)
Name of districts	Baltistan	87 (21.8%)
	Hunza	77 (19.3%)
	Astore	16 (4%)
	Ghanche	17 (4.3%)
	Ghizer	79 (19.8%)
	Islamabad	82 (20.5%)
	Diamir	41 (10.3%)
	Kotli	1 (3%)
Type of family	Nuclear family	42 (10.5%)
	Joint family	358 (89.5%)
Chronic disease	No	353 (88.3%)
Yes	Asthma	3 (0.8%)
	Renal	13 (3.3%)
	Diabetes	12 (3%)
	Other	19 (4.8%)
Hospitalised for last 1 year	Not hospitalised	353 (88.3%)
	Yes hospitalised	47 (11.8%)
Frequency of admission	1 time	44 (11%)
	2 times	3 (0.8%)
Reason for admission	Maternity	1 (0.3%)
	Minor surgery	42 (10.5%)
	Heart disease	4 (1.0%)
Hospital operated by	Government	43 (10.8%)
	Private	4 (8.7%)
Duration of stay	1 day	3 (0.8%)
	3–5 days	35 (8.8%)
	6–14 days	6 (1.5%)
	15 days and above	3 (0.8%)
Barrier	Barrier seeking care	12 (3.0%)
	Barrier in reaching	1 (0.25%)
	Barrier in receiving	13 (3.25%)

DISCUSSION

As per the WHO findings concerning Pakistan, it is anticipated that approximately 42% of total fatalities will be attributed to chronic ailments. The chronic conditions of prime focus include communicable diseases during

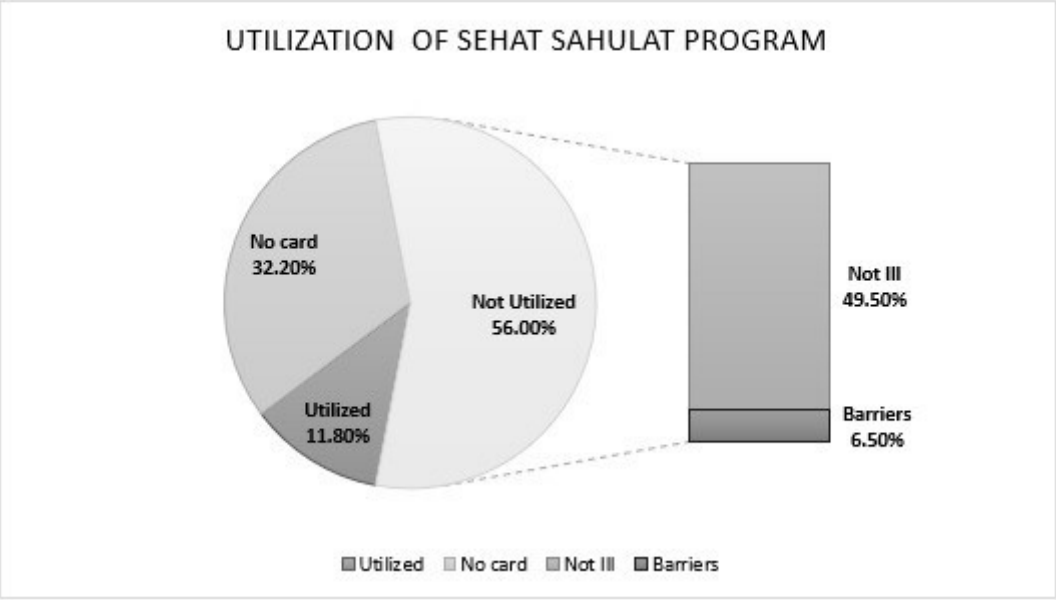

Figure 2 In this graphical representation, we explore the utilisation of the Sehat Sahulat Programme, revealing that only 11.8% of respondents used the programme, while more than half of the respondents reported non-utilisation. This lack of utilisation was primarily attributed to their satisfaction with their current health conditions.

maternal and perinatal stages, nutritional insufficiencies, cardiovascular disorders, cancer and diabetes.[8] Among breast cancer patients in Iran, this study found that monthly medical expenses of around $97.87 led to 5.07% falling into poverty and 13.77% facing severe financial strain, particularly impacting those with lower income who resorted to selling assets or borrowing.[9]

The research highlights three primary facets: (1) the implementation of the programme, (2) barriers encountered in using the SSP and (3) the interrelation between sociodemographic attributes and the involvement of registered households in the Federal Area. The study's outcomes reveal that 68% of households acknowledge their enrolment in the programme, whereas 32% assert non-possession of the card. It is important to note that this 32% figure might be influenced by recall biases, considering that the sampling framework was drawn exclusively from beneficiaries enrolled in federally funded areas.

The utilisation of the SSP is around 12%. A comparative inpatient health insurance was introduced in Gujarat, India, known as RSBY for the people living below the poverty line. From that research it is evident that 18% utilisation of the RSBY.[10] Individuals enrolled in the poor people health insurance program exhibit 1.23 times higher odds of hospitalization incidence compared to their uninsured counterparts among the economically disadvantaged population.[11]

The level of education has statistically significance with utlization of Sehat Sahulat Program. As the age increases, the households are observed using the programme more which shows a significant association of (p=0.001). As highlighted in another study, people using such facility are 'less likely to be male, married, and to live in a household whose head is less Educated'.[12] When asked about the reason for not using the Sehat Sahulat card, almost half of the respondents said that they were not ill enough to use the benefit of hospitalisation.

It is evident from the research that the reason of low utilisation are not barriers but low need of hospitalisation. As the Federal Area were included in the study, Islamabad and Gilgit-Baltistan so household preferred using Government Hospitals like PIMS in Islamabad and Agha Khan medical centres and districts headquarters in Gilgit-Baltistan. Minor surgery was among the most highlighted reason of hospitalisation, and it required 3–5 days of hospitalisation.

The barrier after dividing into three main categories of (1) barrier in seeking care 3%, (2) barrier in reaching care 0.25% and (3) barrier in receiving care 3.25% showed no significance to card utilisation in this study. Overall, 6.5% household were found facing barriers. Some household faced barriers lack of proper guidance, so they did not know where to go. Lack of knowledge regarding the empanel hospitals and delay of payment from the hospital. In recent research on SSP, it was recommended by the researcher that there should be proper mechanism for complaint registration in the empanel hospital.[13]

Limitations and strength

Strengths and weaknesses are apparent in the study investigating the SSP's utilisation and barriers within Pakistan's Federally Administrative Area.

Strengths include the utilisation of the validated WHO Health Survey 2002 tool, a recognised measure for health-related matters. Additionally, the adoption of a simple random sampling technique from the Federal SSP office bolstered generalisability. The study's coverage of diverse regions (Islamabad,

Table 2 Comparison of utilisation of Sehat Sahulat Program (SSP)

Variable	Category	Utilisation of SSP frequency (%)				P value
		No	Yes	No card	Total	
Age	15–30 years	43.1 (8.3%)	9 (1.8%)	24.8 (9.3%)	77 (19.3%)	<0.001
	31–60 years	167 (44.5%)	33 (8.3%)	88 (22%)	229 (74.8%)	
	61–90 years	13 (3.3%)	2.8 (1.8%)	7.7 (1%)	24 (6%)	
Level of education	No formal education	52.1 (15.5%)	10.9 (3.5%)	30.0 (4.3%)	93 (23.3%)	<0.001
	Primary	49.8 (14%)	10.5 (3.5%)	28.7 (4.8%)	89 (22.3%)	
	Matric	69.4 (16.5%)	14.6 (2.5%)	40.0 (12%)	124 (31%)	
	Intermediate	25.8 (5.8%)	5.4 (1%)	14.8 (4.8%)	46 (11.5%)	
	Graduation and above	26.9 (4.3%)	5.6 (1.3%)	15.5 (6.5%)	48 (12%)	
Name of district	Baltistan	48.7 (11.8%)	10.2 (2.3%)	28.1 (7.8%)	87 (21.8%)	0.011
	Hunza	43.1 (11.3%)	9.0 (2.5%)	24.8 (5.5%)	77 (19.3%)	
	Astore	9.0 (3.5%)	1.9 (0%)	5.2 (0.5%)	16 (4%)	
	Ghanche	9.5 (1.3%)	2.0 (0.3%)	5.5 (2.8%)	17 (4.3%)	
	Ghizer	44.2 (12.5%)	9.3 (1.5%)	25.5 (5.8%)	79 (19.8%)	
	Islamabad	45.9 (10.8%)	9.6 (3%)	26.4 (6.8%)	82 (20.5%)	
	Diamir	23.0 (5%)	4.8 (2%)	13.2 (3.3%)	41 (10.3%)	
	Kotli	0.6 (0%)	0.1 (0.3%)	0.3 (0%)	1 (0.3%)	
Hospitalised for last 1 year	Not hospitalised	197.7 (56%)	41.5 (0%)	113.8 (32.3%)	353.0 (88.3%)	<0.001
	Hospitalised	26.3 (0%)	5.5 (11.8%)	15.2 (0%)	47.0 (11.8%)	
Frequency of admission	1 time	24.6 (0%)	5.2 (11%)	14.2 (0%)	44.0 (11%)	<0.001
	2 times	1.7 (0%)	0.4 (0.8%)	1.0 (0%)	3.0 (0.8%)	
Reason for admission	Maternity	0.6 (0%)	0.1 (0.3%)	0.3 (0 %)	1.0 (0.3%)	<0.001
	Minor surgery	23.5 (0%)	4.9 (10.5%)	13.5 (0%)	42.0 (10.5%)	
	Heart disease	2.2 (0%)	0.5 (1%)	1.3 (0%)	4.0 (1%)	
Hospital operated by	Government	24.1 (0%)	5.1 (10.8%)	13.9 (0%)	43.0 (10.8%)	<0.001
	Private	2.2 (0%)	0.5 (1%)	1.3 (0%)	4.0 (1%)	
Duration of stay	1 day	1.7 (0%)	0.4 (0.8%)	1.0 (0%)	3.0 (0.8%)	< 0.001
	3–5 days	19.6 (0%)	4.1 (8.8%)	11.3 (0%)	35.0 (8.8%)	
	6–14 days	3.4 (0%)	0.7 (1.5%)	1.9 (0%)	6.0 (1.5%)	
	15 days and above	1.7 (0%)	0.4 (0.8%)	1.0 (0%)	3.0 (0.8%)	

Gilgit-Baltistan, Azad Kashmir) enriched insights. Categorising barriers into seeking, reaching and receiving care aids targeted policy formation.

Conversely, weaknesses encompassed exclusive reliance on telephonic interviews, possibly excluding those lacking phones/connectivity, thus introducing selection bias. The focus on individuals below the poverty line limited wider applicability. The study's response rate, merely 40%, was notably low due to telephonic nature (400 out of 1000 calls). Additionally, the identified lack of trust as a barrier demands more qualitative exploration for deeper comprehension. Comprehensive studies addressing accessibility and broader demographics are necessary to enhance validity. In summary, the study offers valuable SSP insights, yet necessitates more inclusive research for validity enhancement, acknowledging both strengths and limitations.

Acknowledgements I extend my heartfelt appreciation to the Federal Sehat Sahulat Programme (SSP) team for their trust and support in achieving my research targets. Special thanks to Mr. Muhammad Arshad, CEO of Federal SSP, for his invaluable guidance. I also acknowledge Mr. Zohair Ihsan, Deputy Director MIS (Federal SSP), for his instrumental role. Lastly, I'm grateful for the supervision provided by Dr. Shahzad Ali, whose mentorship was pivotal in both my research and professional growth.

Contributors MAF undertook the literature review, secured approval from the IRB board, collaborated with the Ministry of Health, gathered and analyzed data utilizing SPSS, and delivered the report for board approval. KNA, acting as the supervisor, offered guidance from concept inception to report composition and presentation. SR, the Deputy Director Technical, and Mr. Zohair, Deputy Director MIS, from the Ministry of Health supplied the sampling framework and supervised the study's advancement. The individual responsible for overseeing the entirety of this project, from its inception to presentation, is MAF.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient and public involvement Patients and/or the public were not involved in the design, or conduct, or reporting, or dissemination plans of this research.

Patient consent for publication Consent obtained from parent(s)/guardian(s).

Ethics approval Chairman Ethical Review Committee Al Shifa Trust Eye Hospital Rawalpindi approved the study. Reference No: ERC-68/AST-21. Participants gave informed consent to participate in the study before taking part.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement Data are available upon reasonable request.

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