

FINANCIAL SERVICES ASSESSMENT

# Assessment of Health Microinsurance Outcomes in the Northern Areas, Pakistan— Baseline Report

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*Financial Services Assessment* project can be found  
on the web at <http://www.fsassessment.umd.edu/>

## ABOUT THE PROJECT

The *Financial Services Assessment* project is designed to examine the impact of financial services on the lives of poor people across the developing world. This project is funded by the Bill & Melinda Gates Foundation, which is committed to building a deep base of knowledge in the microfinance field. The IRIS Center at the University of Maryland, College Park, together with its partner Microfinance Opportunities, will assess a diverse range of innovations in financial services. The results of this project will shed light on the design and delivery of appropriate financial products and services for the poor, and on the potential to scale up successful innovations to reach larger numbers of low-income households.



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## ABSTRACT

The Health Microinsurance (HMI) is a voluntary private insurance product developed by the Aga Khan Agency for Microfinance (AKAM) with support from the Bill & Melinda Gates Foundation (BMGF). The HMI Outcomes Assessment examines whether the HMI product helps reduce out-of-pocket health-care costs and leads to positive change in health-seeking behavior and health outcomes. Findings from this baseline study demonstrate a multitude of serious health issues for the Ghizar population. When formal care is needed, hospitals in the Aga Khan network are preferred, but out-of-pocket costs can run quite high. At present, people most often borrow to cover the expense, even though options for obtaining loans are limited, especially for the middle and lower classes. Although the HMI can effectively protect families from most direct costs for a week of hospitalization at an AKHSP hospital or a much longer stay at a government hospital, a baseline view of enrollment suggests that relatively few people are buying the insurance. The main reason is upfront cost, particularly for those living in large or joint households. Summing up on value proposition, the program does indeed offer considerable value to the residents of this area, but the value is unevenly distributed across the population—the middle class and those living close to major hospitals benefit disproportionately. Lessons applicable to AKAM/FMiA and the industry include rethinking the plan's market strategies, which employed existing community organizations to reduce costs but may have dragged down enrollment in the end due to inconsistent efforts.

## NOTE ON EXCHANGE RATE

The rate used in this report is 69.00 Pakistani Rupees to 1 US\$.

## OTHER NOTES

Photographs taken by Elizabeth McGuinness. Maps and graphics by Lance Marburger.

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## ACRONYMS

AB	Allied Bank
AKAM	Aga Khan Agency for Microfinance
AKDN	Aga Khan Development Network
AKESP	Aga Khan Education Services, Pakistan
AKHSP	Aga Khan Health Services, Pakistan
AKRSP	Aga Khan Rural Support Programme
AKU	Aga Khan University
ANC	Ante-Natal Care
BAF	Bank Al-Falah
BHU	Basic Health Units
BMGF	Bill & Melinda Gates Foundation
CMH-Gilgit	Combined Military Hospital in Gilgit
DHQ-Gilgit	District Headquarters Hospital in Gilgit
FGD	Focus Group Discussions
FMFB	First Microfinance Bank
FMiA	First Microinsurance Agency
FSA	Financial Services Assessment
GDP	Gross Domestic Product
GEFHC	Gupis Extended Family Health Center
GMC	Gilgit Medical Center
HB	Habib Bank
HMI	Health Microinsurance
IUD	Intrauterine Device
KCB	Karakorum Cooperative Bank
LHB	Local Health Boards
LHV	Lady Health Visitors
LSO	Local Service Organizations
MCB	Muslim Commercial Bank
MCH	Maternal and Child Health clinics
MFO	Microfinance Opportunities
NA	Northern Areas of Pakistan

NBP	National Bank of Pakistan
NGO	Nongovernmental Organization
NJL	New Jubilee Life Insurance Company
ORS	Oral Rehydration Solution
PPP	Purchasing Power Parity
PRs	Pakistani Rupees
PRA	Participatory Rapid Appraisal
RHB	Regional Health Board
ROSCA	Rotating Savings and Credit Association
SB	Soneri Bank
SMC	Singhal Medical Center
UBL	United Bank Limited
VO	Village Organizations
WO	Women's Organizations

## GLOSSARY

Adverse selection	Also called anti-selection, the tendency of persons who present a poorer-than average risk to apply for, or continue, insurance. If not controlled by underwriting, results in higher-than-expected loss levels (Churchill, C. F., Liber, D., McCord, M.J., & Roth, J., 2003).
Benefit	The amount payable by the insurer to a claimant or beneficiary upon the occurrence of the insured event. The benefit amount should be consistent with the insurable interest. Allowing coverage above the insurable interest creates fraud and moral hazard risks.
Claim	A request for payment under terms of an insurance contract when an insured event occurs.
Claims processing	The system and procedures that link the occurrence of an insured event with a payout. It is extremely important that micro insurers minimize the time spent in processing claims so that payouts can be made as quickly as possible.
Cover or coverage	The scope of protection provided under an insurance contract.
Credit life	Insurance coverage that repays the outstanding balance of a loan if a borrower dies.
Eligibility	The criteria by which one is able to purchase an insurance policy; intended to control adverse selection (e.g., there may be age restrictions that prevent people above or below a certain age from accessing insurance).
Health Insurance	Protection from the costs of illness, accidents, and other health-related risks.
Insurance	A system under which individuals, businesses and other entities, in exchange for monetary payment (a premium), are guaranteed compensation for losses resulting from certain perils under specified conditions.
Insured	The policyholder, the person or entity protected in case of a loss or claim.
Life insurance	Coverage providing for payment of a specified amount on the insured's death, either to the deceased's estate or to a designated beneficiary; or in the case of an endowment policy, to the policyholder at a specified date.
Microinsurance	A subset of insurance that provides financial protection to the poor from certain risks in a way that reflects their cash constraints and coverage requirements.
Moral hazard	A risk that occurs when insurance protection creates incentives for individuals to cause the insured event; or a behavior that increases the likelihood that the event will occur (Churchill et al., 2003).
Policy	The legal document issued by the company to the policyholder that outlines the conditions and terms of the insurance.
Policyholder	A person or entity that pays a premium to an insurance company in exchange for the coverage provided by the insurance policy.
Policy-seeker	Households that wanted to purchase the insurance, but were not able to do so.
Preexisting condition	A physical and/or mental condition of an insured that first manifested itself prior to the issuance of his/her policy.
Premium	The sum paid by a policy-holder to keep an insurance policy in force.
Primary care	Refers to a span or an assembly of first-contact health-care services directly accessible to the public. ( <a href="http://www.euro.who.int/InformationSources/MtgSums/2002/20030506_1">http://www.euro.who.int/InformationSources/MtgSums/2002/20030506_1</a> )
Protection	Ability of an insurance product to provide compensation for losses incurred. Protection can be full or partial.
Risk	The chance of loss.

Risk management strategies/Financial services	Besides insurance, emergency loans and accessible savings accounts and remittance services can help low-income persons to manage their risks.
Secondary care	The provision of a specialized medical service by a physician specialist or a hospital on referral by a primary care physician. ( <a href="http://medical-dictionary.thefreedictionary.com/secondary+care">http://medical-dictionary.thefreedictionary.com/secondary+care</a> )
Vulnerability	The existence and extent of a threat of poverty and destitution; the danger that a socially unacceptable level of wellbeing may materialize. (Dercon, 2005, p.2)

## EXECUTIVE SUMMARY

Serious illness is the number one risk faced by poor households around the world (Cohen and Sebstad, 2003; Matul, 2005; Matul, 2006; Mekong Economics, Ltd, 2003). The multiple costs of ill health include the direct costs of medical care such as consultations, treatment, and drugs as well as indirect costs such as transportation and care for attending family members. Furthermore, the sickness and incapacitation of income earners results in reduced productivity and lost income for families (Asfaw, 2003 as cited in Jutting, 2003).

The coping strategies most often used by low-income households to address health shocks – drawing down savings, borrowing, and selling productive assets – are usually inadequate and can lead households to fall into poverty (Cohen & Sebstad, 2003). Access to formal risk management products may enable poor people to better cope with the financial shocks resulting from serious illness, but access remains low in the developing world (Roth et al., 2007).

The purpose of microinsurance is to reduce vulnerability (i.e., prevent people from falling into poverty) by protecting against the chance of a loss. This is in contrast to microcredit, which aims to reduce poverty by increasing household incomes. Globally, health insurance is the most highly desired microinsurance product (Roth, McCord, & Liber, 2007).

Interest in health microinsurance has been rapidly growing as has the number of initiatives to deliver private, commercially-based health insurance to the low-income market in developing countries. The Health Microinsurance (HMI) product, a voluntary, private insurance developed for the Northern Areas (NA) of Pakistan is just one example. This product was designed and implemented by the Aga Khan Agency for Microfinance (AKAM) with support from the Bill & Melinda Gates Foundation (BMGF). The primary objective of the insurance is to prevent low-income families from falling into poverty as a result of catastrophic medical costs.

Despite the availability of a free-to-user, government-supported health and hospital system, 75 percent of all health-care expenses in Pakistan are met by out-of-pocket expenditures (due to a variety of factors including low standards of care in the government facilities), demonstrating that the medical costs borne by households are significant (Seckhu & Savedoff, 2005). The HMI provides hospital coverage and free consultations for participating families as well as life insurance for one breadwinner. The product allows families to access hospital care at higher quality health facilities, usually with no cash outlay required. AKAM implemented an innovative marketing and distribution system that relies on existing community development organizations to reduce the costs of bringing the product to the target market: households with incomes just above the poverty line.

This study, the HMI Outcomes Assessment, will assess whether the HMI program reduces household vulnerability to health risks and if so, how. The study is part of the broader Financial Services Assessment (FSA) project. Undertaken by the IRIS Center at the University of Maryland and its partner Microfinance Opportunities, the FSA project aims to assess the impact of grants provided by the Bill & Melinda Gates Foundation (BMGF) to microfinance organizations for the design and development of financial services innovations in developing countries.

The research investigates changes in household health risk management behavior and health-seeking behavior to determine if households that enroll in the health

microinsurance achieve improved financial and health outcomes as a result of using the insurance. The evaluation also probes for changes at the hospital level, such as new levels of hospital utilization, costs, and revenues that could lead to changes in the quality of care offered.

This report presents the findings of baseline research that was carried out in November and December 2008 as the HMI product was rolled out. It summarizes the results of three separate but related qualitative field research activities. The first research activity focused on consumers and investigated the demand for the HMI product, their current use of risk management financial services for health emergencies, their current health-seeking behaviors and consumer preferences for health and hospital care providers. The second activity explored and documented the supply of formal and informal risk management financial products in the study area. The third activity examined the supply of health-care services available to HMI policyholders.

The research mainly employed focus group discussions (FGDs) and structured key informant interviews to assess these changes and explore the value proposition of the HMI. Research focused on the population of Ghizar district, the western-most part of the Northern Areas.

Research findings clearly demonstrate the importance of health issues as a financial risk for people in Ghizar. However, people often delay treatment or fail to obtain it altogether due to the high cost. Although people in the area have developed a number of ex-ante and ex-post coping strategies to address the risks they face, these are often inadequate to meet their needs, especially in the face of a serious medical crisis. Moreover, they tend to rely on ex-post strategies, which are higher in cost and more stressful.

The formal health-care landscape in the Ghizar district is comprised of three health-care systems: government, Aga Khan Health Services, Pakistan (AKHSP), and military facilities. Care in government facilities is ostensibly free and available to all local residents. Hospitals in the Aga Khan network, however, are generally seen as providing better quality care. Consumers with the resources to choose typically preferred the fee-for-service AKHSP facilities. Out of necessity, poor consumers were more likely to seek care free-of-charge through the government sector.

The direct costs of hospital care (consultation, diagnosis, treatment and medication) are substantial for all users of the AKHSP system. However, those who live far from the major hospitals in Singhal and Gilgit incur extra expenses. First, they pay more in transportation to reach medical facilities in Singhal and Gilgit. Second, in the event of a serious illness, they may be referred to several health-care providers before they receive the appropriate care.

There are no other private health insurance options in the region except for the relatively few households who obtain insurance through their employer. Given that many in the area cannot afford the AKHSP system, they borrow to cover the expense of hospital care. However, options for obtaining loans are limited, especially for the middle and lower classes. The middle class tend to use the First Microfinance Bank, Village Organizations (VOs) and Women Organizations (WOs), Karakorum Cooperative Bank and cooperative societies. For the poor, however, the informal financial services sector comprises their main resource. If households have difficulty repaying their loans after a health crisis, they often sell productive assets or provide labor at low rates to remove the burden of debt. These are high-stress coping strategies that increase household vulnerability.

Based on the information received from residents, it appears that the HMI can effectively protect families from most of the direct costs of one week of hospitalization at an AKHSP hospital or a much longer stay at a government hospital. Yet only four percent of the population enrolled in the HMI during the first year. The main reason for the lack of demand was cost, particularly for those living in large or joint households. Findings also suggest that lack of understanding and lack of trust in insurance may have created a reluctance to purchase the HMI. A substantial portion of the population did not have access or the opportunity to purchase the HMI because they lived outside of the HMI marketing territories, their VO/WO was ineligible, or because they were never made aware that the product was available.

The value proposition of the HMI could be considerable for the residents of this area, but the value is unevenly distributed across the population. Generally, the HMI will serve only the segment of the population that both needs it and can afford it—that is, the middle-income group. The value proposition may be considerably higher for families living closer to the major hospitals since they would not face the higher travel costs that dilute the product's value for more distantly located households. In addition, considering that the program only covers in-patient costs, the value proposition will vary depending on the proportion of direct in-patient costs to total hospital-related costs. Finally, the value only applies to those families who do not require specialized medical care outside of the Northern Areas.

Lessons from the study applicable to AKAM and to its sister company, the First Microinsurance Agency (FMiA) include:

The use of community development organizations—Local Service Organizations (LSOs)—to serve as distribution channels and group policyholders for the HMI had advantages and disadvantages. The outreach of the available and qualified LSOs was low. As a result, the marketing territory within which the HMI was accessible in Ghizar district only covered 34 percent of the population. Other distribution channels will be needed if the HMI is to be accessible to 100 percent of the population.

Placing the bulk of the responsibility for marketing and selling the HMI on the LSO partners to hold down distribution costs of the HMI unintentionally resulted in uneven marketing and inconsistent messages relayed to the consumer market. FMiA and AKAM may need to make a deeper investment in marketing in future launches.

The market data gleaned from this fieldwork identified a number of distinct and sometimes surprising market segments for the HMI in Ghizar district (for example, families who already have health coverage through an employer). These findings suggest that there is demand for the HMI from unexpected quarters and that the market for the product may be larger than imagined.

The research found that the eligibility requirements were modified in some places during the enrollment period. This had the effect of boosting insurance sales, but may have allowed a higher-than-desirable level of adverse selection. FMiA needs to monitor this situation closely and take corrective measures, or else risk the financial viability of the program.

Lessons from the study applicable to the industry include:

The research indicates that the feasibility of health microinsurance remains a challenge in sparsely populated areas where transportation costs are high to access health care and other services. Covering transportation costs would increase the value proposition of the insurance for policyholders who live far from major health facilities and thus would increase the demand in these areas. Doing so, however, may or may not be financially viable.

With voluntary insurance it is imperative to get the marketing and enrollment right. Incentives must be sufficient to effectively motivate the marketers within various distribution channels. Mass media product marketing can take the burden off community-based promoters and sales forces while reaching larger audiences.

## STUDY BACKGROUND

The Financial Services Assessment project, undertaken by the IRIS Center at the University of Maryland and Microfinance Opportunities, is assessing the impact of grants provided by the Bill & Melinda Gates Foundation (BMGF) to microfinance organizations for the design and development of financial services innovations in developing countries. The research will assess the impact of new financial products, services and delivery systems on outreach and ultimately client welfare. The Financial Services Assessment project addresses issues such as access to financial services and the role of the enabling environment. Through the use of baseline and endline quantitative surveys and qualitative studies, the research examines if and how the financial innovations supported by BMGF affect access and use of financial services by the poor and impact client welfare. In this way, the research helps reveal the value proposition, that is, the unique added value of the innovations for low-income consumers.

In 2007, BMGF funded the Aga Khan Agency for Microfinance (AKAM) to design and implement a range of microinsurance products for low-income markets in Pakistan and Tanzania. The AKAM program objectives were to demonstrate that microinsurance can be a powerful and cost-effective tool to alleviate the vulnerability of the poor; to test the hypothesis that there is considerable demand for catastrophic risk insurance among the poor; and to develop a viable business model for delivering microinsurance. This study was designed to evaluate the outcomes for participating households and hospitals of the Health Microinsurance (HMI) product, which was launched in the Northern Areas of Pakistan in 2008.

The research findings of the Financial Services Assessment project are disseminated through a series of reports that: (i) examine access to and use of financial services provided by BMGF grantees, and (ii) identify the value proposition of grantees' innovations in terms of welfare improvements. Collectively these studies will allow us to understand the outcomes and impact of financial service interventions. This paper, based on the findings from baseline qualitative research in Pakistan, is one of several papers in the series. Other papers prepared in this series to date are listed in Annex 1.



# I. Introduction

Serious illness is the number one risk faced by poor households around the world (Cohen & Sebstad, 2003; Matul, 2005; Matul, 2006; Mekong Economics, Ltd, 2003). Existing risk-coping strategies available to these households are usually inadequate to cover the multiple costs of ill health, which include the direct costs of medical care such as consultations, treatment and drugs, as well as indirect costs such as transportation and care for attending family members. Furthermore, the sickness and incapacitation of income earners results in reduced productivity and lost income for families (Asfaw, 2003 as cited in Jutting, 2003). Consequently, households must cope with increased expenditures and reduced income simultaneously.

The coping strategies most often used by low-income households to address health shocks—drawing down savings, borrowing and selling productive assets—are usually inadequate and can lead households to fall into poverty (Cohen & Sebstad, 2003). In this context, access to formal risk management products would enable poor people to better cope with the financial shocks resulting from serious illness, however, access generally remains low in the developing world (Roth et al., 2007).

Globally, health insurance is the most highly desired microinsurance product (Roth, McCord, & Liber, 2007). Interest in health microinsurance has been rapidly growing as has the number of initiatives to deliver private, commercially-based health insurance to the low-income market in developing countries.

The Health Microinsurance (HMI) product, a voluntary, private insurance developed for the Northern Areas (NA) of Pakistan is just one example. This product was designed and implemented by the Aga Khan Agency for Microfinance (AKAM) with support from the Bill & Melinda Gates Foundation (BMGF). The primary objective of the insurance is to prevent low-income families from falling into poverty as a result of catastrophic medical costs.

Despite the availability of a free-to-user, government health and hospital system, 75 percent of all health-care expenses in Pakistan are met by out-of-pocket expenditures (for a variety of factors, including the perceived or actual inferior standard of care at government facilities), demonstrating that the medical costs borne by households are significant (Seckhu & Savedoff, 2005). The HMI provides coverage for hospitalization and free consultations for all members of participating families, as well as life insurance for one breadwinner. The product allows families to access hospital care at higher quality health facilities, primarily on a cashless basis, depending on the facility used. AKAM implemented an innovative marketing and distribution system that relies on existing community development organizations to reduce the costs of bringing the product to the target market: households with incomes just above the poverty line. While AKAM's goal is to develop a commercially viable product, it should be noted that this is a very experimental and therefore risky business.

The Health Microinsurance Outcomes Assessment research is evaluating the HMI product as part of the Financial Services Assessment project. The purpose of microinsurance is to reduce vulnerability (i.e., prevent low-income people from falling into poverty) by protecting against the chance of a loss. This is in contrast to microcredit, which aims to reduce poverty by increasing household incomes. Therefore, the HMI Outcomes Assessment study will assess whether the HMI program reduces household vulnerability to health risks and if so, how.

One of the primary aims of the research is to gain insights into clients' financial strategies and behavior to help strengthen the base of knowledge on which the microinsurance field rests.

The Health Microinsurance Outcomes Assessment research seeks to fill in some of the gaps in our understanding of microinsurance while addressing the two specific learning agendas of the FSA project to prove impact and improve program performance. Through the use of baseline and endline investigations, the Outcomes Assessment takes a broad approach to evaluating the HMI while retaining a focus on the microinsurance policyholder.

The study investigates impact in terms of the project's causal chain, from the implementation of the HMI to household and hospital outcomes. For the insurance to achieve any impact several effects need to occur. First, households must have the opportunity to buy the HMI, i.e., they must have access to it, and then they must purchase it. However, the benefits flowing from health insurance do not occur unless a policyholder uses the insurance to obtain medical treatment. Once the insurance is used, a chain of outcomes is set in motion.

The research investigates changes in household health risk management behavior and health-seeking behavior to determine whether households achieve improved financial and health outcomes as a result of using the insurance. The evaluation also probes for changes at the hospital level, such as new levels of hospital utilization, costs and revenues that could lead to changes in the quality of care offered. Positive outcomes at both the hospital and household levels would suggest that household vulnerability will be reduced over the long term. Positive outcomes for both groups would also suggest that there would be a sustained and increased demand for the HMI, which could lead to a viable and sustainable supply of HMI in the future.

At the same time, working primarily from the clients' point of view, the Outcomes Assessment contributes to the improving agenda by providing a more contoured picture of the market demand and value proposition for this hospital insurance in the context of the target market's currently available health-care and financial services landscapes. Additionally, the research provides insights into how the supply of insurance, particularly marketing and distribution processes, can shape market demand and access. The results will benefit practitioners in microinsurance by helping them improve their products while assisting policymakers and advocates, including BMGF, identify where investments in microinsurance can have the greatest impact.

Even as the health microinsurance market develops, research on this topic is just beginning to emerge. The demand and supply of insurance is still only partially understood while research is just beginning on value to the client/policyholder as well as the broader impact of health microinsurance (ILO, 2008). The Health Microinsurance Outcomes Assessment contributes to the microinsurance research agenda by addressing key questions on insurance impact and value to the client as well as landscaping supply and demand.

This report presents the findings of the HMI Outcomes Assessment baseline research, which was carried out by Microfinance Opportunities in November-December 2008 as the HMI product was rolled out. It summarizes the results of three separate, but related, qualitative field research activities. The first research activity focused on consumers and investigated the demand for the HMI product, current use of existing risk management financial services for health emergencies, current health-seeking behaviors and consumer preferences for health and hospital care services. The second activity explored and documented

the supply of formal and informal risk-management financial products in the geographic study area to provide the context for understanding existing consumer risk-management behavior. The third research activity examined and documented the supply of health-care services available to HMI policyholders to gain an understanding of current health-seeking behaviors. The endline field investigation will be implemented approximately two years after the baseline research.

This report is organized as follows: Chapter II presents details on the Health Microinsurance product and background information on the location of the HMI program. Chapter III provides an overview of the Outcomes Assessment research purpose and design as well as the methodology of the baseline study. Chapter IV provides a demographic profile of the consumer research sample and reviews the wealth and health status of the population in the study area. Chapter V presents data on the health-care landscape available to the study population. Chapter VI reviews the findings on consumer health-seeking behaviors with a focus on cost as a key determinant, while Chapter VII reviews how consumers pay for health-care emergencies and presents a brief description of the financial landscape for health risk management products. Chapter VIII addresses the first two elements of the causal model for the Outcomes Assessment by examining who had access to the HMI in 2008, who purchased it, and why. Chapter IX concludes with a discussion of key questions particularly around the value proposition of the health microinsurance. Chapter X presents preliminary lessons learned from the launch of the HMI for the microinsurance industry generally, and AKAM specifically.



## II. Background

The Health Microinsurance (HMI) product, one of several microinsurance products developed by the Aga Khan Agency for Microfinance (AKAM) was designed to protect families from catastrophic healthcare expenses. The HMI provides voluntary coverage to low-income families for inpatient medical treatment, including maternity care, as well as life insurance for one family member. The HMI is available to families living in selected marketing areas within the Northern Areas of Pakistan including Gilgit, Hunza-Nagar and Ghizar districts.<sup>1</sup> The insurance covers medical care at private Aga Khan Health Services, Pakistan (AKHSP) health facilities and at selected government and military hospitals.

### AKAM'S HEALTH MICROINSURANCE PRODUCT

The HMI was piloted in parts of Hunza-Nagar and Gilgit districts, beginning in November 2007. One year later, the product was rolled out to all of Hunza-Nagar district, new areas of Gilgit town and Ghizar district. AKAM selected these locations for the HMI insurance because the local populations have access to an extensive network of AKHSP health facilities. The research team selected the Ghizar district as the site of the outcomes research because the population did not have access to the insurance during the pilot test period.

The HMI was introduced to Ghizar district with a marketing campaign beginning in the summer of 2008. Sales and enrollment started in September. The deadline for enrollment, originally set for October 1, was extended until November 15 while coverage began on November 1, 2008. The features of the HMI product are provided below:

The HMI provides the following coverage:

- Inpatient treatment up to 25,000 Pakistani rupees (PRs) (\$362 USD) per year, per family member.
- Life insurance coverage for one family breadwinner (selected by the family), between the ages of 18 and 60 years, up to 25,000 PRs (\$362 USD).
- One voucher for a free consultation with a medical officer at a covered AKHSP facility or a consultant at the Combined Military Hospital (CMH) per year, per family member.
- Inpatient maternity care up to 25,000 PRs (\$362 USD) per year.
- Prenatal care including four prenatal check-ups, five tests and some nutritional supplements. Postnatal checkups.

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<sup>1</sup> The marketing areas for the HMI are selected by FMiA based on their proximity to AKHP medical facilities and by their availability of a legally registered local organization that can market and distribute the insurance.

Cost:

- The premium costs 400 PRs (\$6 USD) per person for both adults and children, and it is paid annually. For example, the annual premium for a family of five would be 2,000 PRs (\$29 USD).

Enrollment eligibility:

- The insurance is available on a voluntary basis to families within the geographic marketing areas and subject to three levels of eligibility criteria. First, the family must live within the territory of a legally registered and participating Local Service Organization (LSO). Second, 50 percent of registered member households within each Village Organization (VO) or Women Organization (WO) must be willing to enroll for the families living in the VO/WO area to be eligible for the insurance. Third, all family members must enroll in the HMI insurance.

Covered Health Facilities: Families that purchase the insurance can obtain inpatient services at AKHSP health facilities<sup>2</sup> and a military hospital on a cashless basis and at a government hospital on a reimbursement basis. The covered AKHSP health facilities in Ghizar district include:

- Singhal Medical Center (SMC)
- Gupis Extended Family Medical Center (EFMC-Gupis)
- Gilgit Medical Center (GMC)
- Additionally, 14 AKHSP Maternal and Child Health clinics (MCHs)

The covered government and military health facilities include:

- District Headquarters Hospital in Gilgit (DHQ-Gilgit)
- Combined Military Hospital in Gilgit (CMH)

Note that government hospitals in Ghizar district, for example DHQ-Gakuch, may be covered in the future if they start to provide inpatient treatment.

The HMI product was rolled out in the Northern Areas of Pakistan. The next section provides background information on Pakistan and the Northern Areas to help us understand both the macroeconomic and geographic context into which the insurance has been introduced.

## HMI ADMINISTRATION

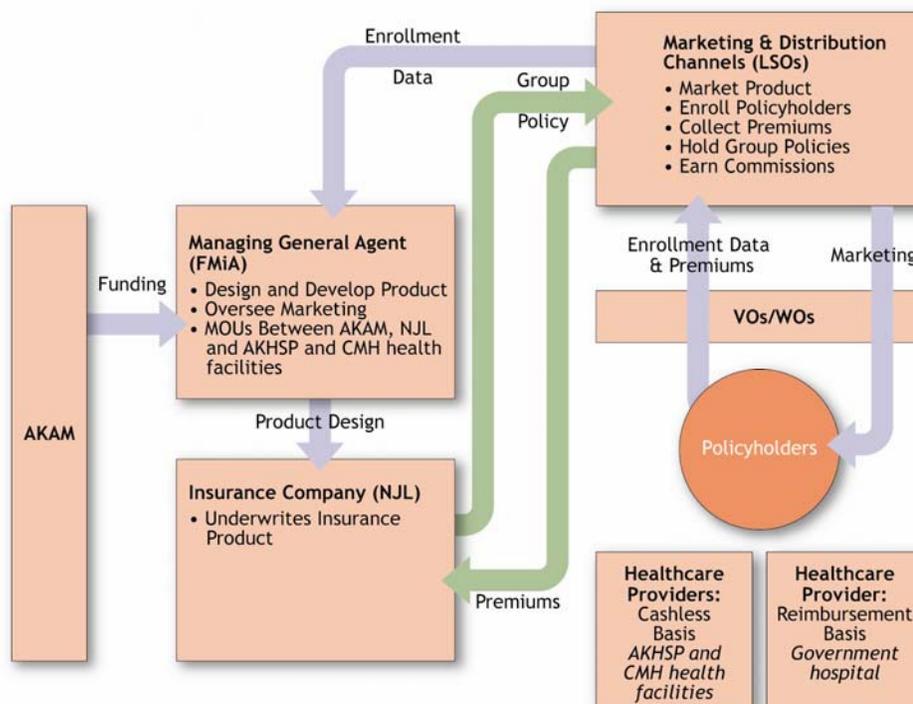
AKAM is using an innovative business model to design and deliver a variety of microinsurance products in Pakistan, including the HMI (see Figure 1). At the center of this business model is the First Microinsurance Agency (FMiA), which is similar to a managing general agent and was set up by AKAM to manage and

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<sup>2</sup> This report uses the word “hospital” to refer to several AKHSP health facilities that provide inpatient medical treatment but which are not MCH centers. These AKHSP facilities are more accurately described as medical centers as they are not sufficiently comprehensive to qualify as hospitals. However, in the interest of conciseness we use the term hospital for all health facilities which provide inpatient care, are covered by the HMI insurance, and are not MCH centers.

administer all microinsurance activities in Pakistan (Pott, Long, & Patel, 2008). FMiA is the link between the other stakeholders in the HMI business model. These include the insurance company, New Jubilee Life (NJL), a commercial insurance company that is part of the Aga Khan Fund for Economic Development and underwrites the HMI, and the Local Service Organizations (LSOs) that serve as group policyholders. The LSOs are community-based, apex organizations that are made up of member VOs and WOs. The third stakeholder group is the health-care providers.

**Figure 1: HMI Business Model - Enrollment Processes**



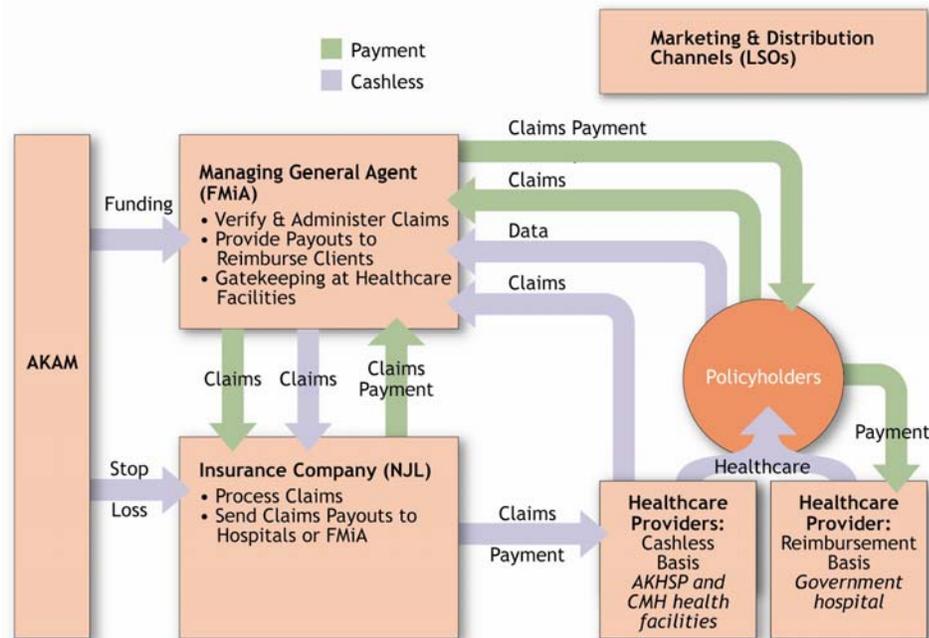
The First Microinsurance Agency designed the HMI product and established agreements among all stakeholders including facilitating the negotiation of treatment protocols between the AKHSP hospitals and the insurance company. The protocols between the health facilities and the insurance company define how much will be paid for a defined set of services. (The negotiated prices may be somewhat lower than those normally charged by the health facilities.) FMiA is responsible for marketing the insurance and overseeing sales through the LSOs and community groups. It serves as gatekeeper for the insurance, providing advance authorization for all inpatient treatment of policyholders (except in emergency cases). FMiA lowers the transaction costs for the insurance company by verifying and consolidating all claims prior to processing by NJL. It also processes claims and provides payouts to policyholders who obtain medical treatment on a reimbursement basis.

NJL receives the premium funds and claims documents, and processes claims and pays benefits. NJL is formally linked to other partners in the business model through insurance policies and Memoranda of Understanding (MOUs).

The HMI is sold as a voluntary group policy to LSOs, which are responsible for marketing the HMI to the community, collecting premiums, assisting policyholders with filling out enrollment forms and distributing their insurance identification cards. LSOs send collected premiums directly to NJL and receive the group insurance policy document in return. They perform these marketing, sales and distribution tasks related to the HMI under the guidance of FMiA.

Covered hospitals are those at which individual policyholders can obtain insured medical treatment. Patients can use covered AKHSP system facilities or the military hospital on a cashless basis, in which case the hospital sends the claims for treatment to FMiA. The company verifies the claim and sends it on for processing at NJL, which, in turn, sends the payout directly to the hospital. Covered government hospitals provide treatment on a reimbursement basis. Individual HMI policyholders submit medical receipts to FMiA, which verifies the claims and sends them to NJL. The insurance company sends payouts back to FMiA, which then reimburses the policyholders (see Figure 2.)

**Figure 2: HMI Business Model - Insurance Operations**



### STUDY LOCATION: NORTHERN AREAS OF PAKISTAN

Pakistan, the world's second largest Muslim country, has a population of more than 172 million people in an area roughly twice the size of California (CIA, 2009). Despite an economic growth rate of more than four percent annually in recent years (UNDP, 2008; World Bank, 2009), a large share of Pakistan's population lives in poverty with a per capita GDP of \$2,370 USD (purchasing power parity [PPP] in 2005). Seventy-six percent of the population lives on less than \$2 USD per day, while 17 percent lives on less than \$1 USD per day. In terms of the national poverty line<sup>3</sup>, 21.9 percent of Pakistan's population lived in

<sup>3</sup> PRs. 944.50 per person per month (\$ 13.70) as of 2004.

poverty in 2004 (World Bank, personal communication, February 11, 2009). In 2008, Pakistan was ranked 139 out of 179 on the Human Development Index (UNDP, 2008).

In the months leading up to the Outcomes Assessment field research, the macro-economy of Pakistan was deteriorating as evidenced by the significant depreciation in the Pakistani rupee, which hit a record low in late October 2008 (83.46 PRs/\$1 USD), and the accelerating rate of inflation, which was 25 percent in November 2008 (State Bank of Pakistan, 2009). The inflation rate for food was more than 30 percent (State Bank of Pakistan, 2009). These trends are expected to result in increasing levels of poverty in Pakistan.

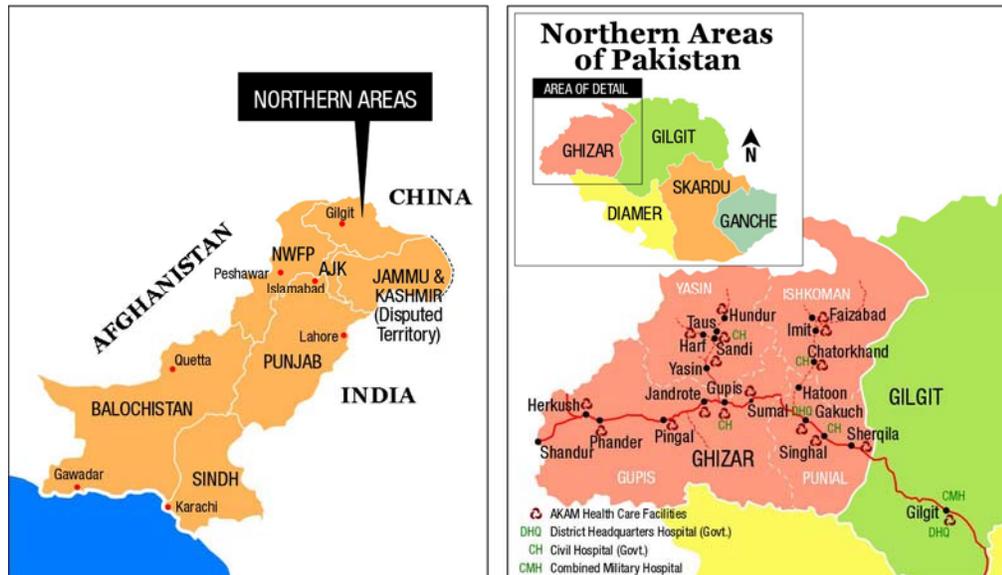
The study took place in the Federally-Administered Northern Areas, a geographically, historically and politically distinct region within Pakistan. Isolated for centuries due to high elevation and rugged mountain terrain, the area continues to be politically isolated and marginalized today (Malik & Hunzai, 2005). In this region, an ethnically- and linguistically- diverse population of 1 million is scattered over 73,000 square kilometers (Ibid.).

Similar to other mountainous regions, livelihoods in the Northern Areas are dependent on a fragile natural resource base. Ninety-five percent of the population depends on agriculture, with most of the population practicing subsistence agriculture and horticulture on landholdings that average 1.5 acres. Cropping intensity varies by elevation with double cropping (i.e., two harvests per year) at lower altitudes and only single cropping (one harvest per year) possible at higher altitudes. The Government of Pakistan reported in 2000 that the average household in the Northern Areas consists of approximately nine members and the average annual household income ranges from \$800 USD to \$2,000 USD (Shaikh, Haran, & Hatcher, 2008). The population growth rate is a relatively high 3 percent annually due to high fertility rates and comparatively high but decreasing mortality rates, especially of children under age five (Shaikh et al., 2008).

The Northern Areas region experiences problems common to mountainous regions in other parts of the world. The effects of a rapidly growing population scattered over remote villages, pressing on a fragile production base, create several major economic problems. These include dependency on the rest of the country for food imports and out-migration of the area's skilled workers to other parts of Pakistan for employment. Overall, the climate of the area is characterized by cold winters that result in a number of ailments. As a consequence, the population of the Northern Areas is on average poorer and in worse health than the average Pakistani citizen.

The field research took place in Ghizar district, the western-most region of the Northern Areas located west and upstream of the capital of Gilgit (see Figure 3). Although relatively peaceful, Ghizar district lies between Kashmir to the east and the Federally Administered Tribal Areas to the west, both of which are sites of ongoing political turmoil. Ghizar is comprised of four *tehsils* (similar to U.S. counties), which correspond to the four main watersheds of this district and include Punial, Ishkoman, Yasin and Gupis.

**Figure 3: Maps of Pakistan with Northern Areas Highlighted and the Ghizar District with Northern Areas Inset**



The population of Ghizar is estimated at 129,478 (Sher Aziz, handout of projections based on the 1998 census). One notable feature of the district is the high proportion of Ismailis who represent 80-85 percent of the population (Singh et al, 2008). There is a sizeable but unknown amount of out-migration from Ghizar for education and work, especially with the military.

Average per capita income in Ghizar district is lower than the regional average and much lower than the average for all of Pakistan (Aga Khan Foundation, n.d.) demonstrating that Ghizar is a poor district within an already poor region.

**Table 1: Per Capita Income in Nominal Terms, 2005**

	<i>PRs</i>	<i>USD</i>
Ghizar District	17,976	\$301
Northern Areas	21,862	\$366
Pakistan	44,520	\$745

Source: Aga Khan Foundation, n.d. Exchange Rate for 2005 is 59.7 Pakistani Rupees to 1 US\$ ([www.xe.com](http://www.xe.com)).

The development of Ghizar has been slower than some other districts in the Northern Areas, such as Hunza, but with new roads and communications infrastructure, it is rapidly catching up. New cash crops such as potatoes, introduced within the past five years, are now economically feasible. Additionally, cell phone coverage is quite extensive. For example, in the sample of villagers who participated in the study's focus groups, 64 percent reported owning a cell phone.

## WHY THE NORTHERN AREAS?

The isolation and poverty of the Northern Areas raises an obvious question: Why would AKAM select this region and the Ghizar district in particular for launching a health microinsurance product? One of the most significant reasons is that AKAM believes that the Ghizar population, predominantly Ismaili, will be more receptive to the insurance due to their loyalty to the Aga Khan and his institutions.<sup>4</sup> The second reason is the presence of the Aga Khan Health Services, Pakistan (AKHSP) network of health-care facilities throughout the region, which policyholders can access.

In addition and notwithstanding the region's economic problems mentioned above, the Northern Areas has been developing rapidly since the 1970s when the monumental Karakorum Highway linking Pakistan and China was completed. Between 1991 and 2005, per capita incomes in the Northern Areas rose at twice the rate of national per capita incomes in Pakistan, although they were still only 60 percent of overall per capita incomes (Aga Khan Foundation, n.d.). The percentage of the population in the Northern Areas living below the poverty level decreased dramatically during this period from 62 to 21 percent (Aga Khan Foundation, n.d.). In addition to the Karakorum Highway, a second key asset of the region is the longstanding development work undertaken by the Aga Khan Development Network (AKDN, or Network). Through a combination of road building and the efforts of AKDN agencies, the economic status and living standards of the people in the Northern Areas have been steadily improving since the 1980s (Aga Khan Foundation, n.d.).

The activities of the Network have been instrumental in the social and economic development of the Northern Areas since the 1940s. The Network, made up of a number of development agencies, has a mission to realize the social conscience of Islam through institutional action. The member agencies provide services ranging from health, education, rural development and cultural activities to the promotion of economic development, of which the HMI initiative is one part (see Figure 4). The Aga Khan Education Services Programme (AKESP) has a system of schools throughout the Northern Areas; the AKHSP comprises the largest nonprofit private health-care system in Pakistan, including a network of facilities throughout the Northern Areas, and the Aga Khan Rural Support Programme (AKRSP) has mobilized a system of 4,000 community development organizations (<http://www.akdn.org>).

Since 1982, the AKRSP of the Aga Khan Foundation has increased incomes and living standards in the Northern Areas through infrastructure activities such as bridges and irrigation channels, tree planting and other natural resource programs, and informal financial services. Most notably they have organized community-based groups, called Village Organizations and Women's Organizations (VOs and WOs), in the region ([akdn.org/pakistan\\_rural.asp](http://akdn.org/pakistan_rural.asp)). These VO/WOs emphasize democratic participation by all villagers. Through the VO/WOs, AKRSP has instilled a spirit of self-reliance in the area, which is reflected in the implementation of various projects by the villagers themselves with AKRSP's financial and technical help. In terms of the HMI program, VOs and WOs have helped market and sell HMI policies.

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<sup>4</sup> Ismailism is the second largest sect within the Shi'a muslim community. The largest branch, the Nizari Ismailis who number about 18 million worldwide, accept Prince Karim Aga Khan IV as their Imam and as a direct descendent of Muhammad. (Source: Wikipedia.org.)

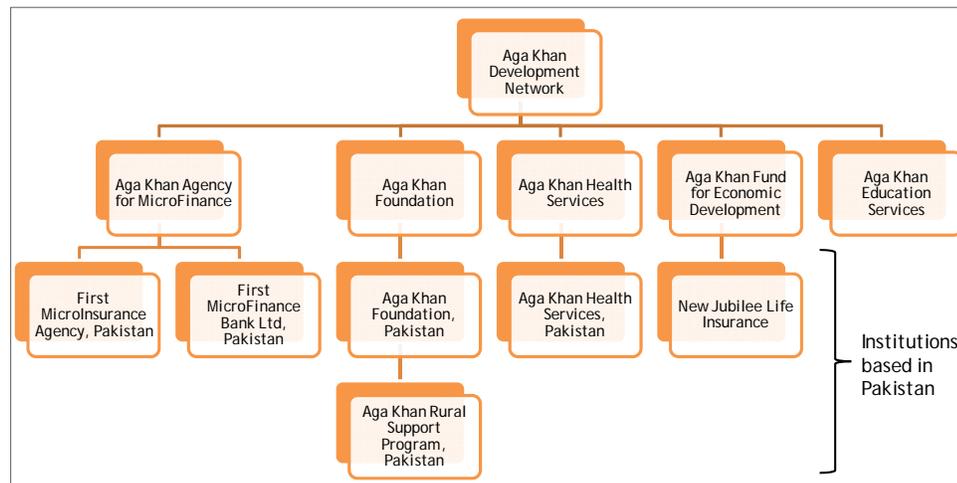
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**Figure 4: Organization Chart of Selected Aga Khan Development Network Agencies**



In recent years, AKRSP has been federating the VO/WOs into Local Service Organizations to decentralize and localize the governance and management of many development programs. AKAM selected these LSOs to serve as the group policyholders for the HMI insurance. Through the lending and savings programs of the VOs and WOs, AKRSP initiated the first microfinance activities in Pakistan. By 2000, \$8 million had been saved by more than 3,260 village organizations ([akdn.org/pakistan\\_microfinance.asp](http://akdn.org/pakistan_microfinance.asp)). The First Microfinance Bank (FMFB) was established in 2002 by transforming and formalizing these savings and loan activities. It is within this context of 25 years of development efforts that AKAM introduced the HMI in 2007.

As a result of all these activities, AKDN has a network of health, education and economic development institutions and programs that impact the majority of residents in the Northern Areas. These activities along with loyalty to the Aga Khan himself, have generated significant goodwill for Aga Khan agency programs. From this perspective, the selection of the Northern Areas territory was an obvious choice for rolling out the HMI product.

## SUMMARY

The preceding section introduced the HMI program including the product features and the business model under which it is organized, as well as the history and setting of the program. It then reviewed the geographic and socioeconomic setting in which the insurance is being offered. This information raised the question of why AKAM introduced the insurance in an environment where affordability, transaction costs and access might well be challenges to the acceptance of the HMI. The discussion showed, however, that the AKDN agencies in the Northern Areas are much appreciated by the local population, suggesting that the HMI might be more likely taken up by that population.



**View from the Road, Ghizar district**



## III. Purpose and Design of the Research

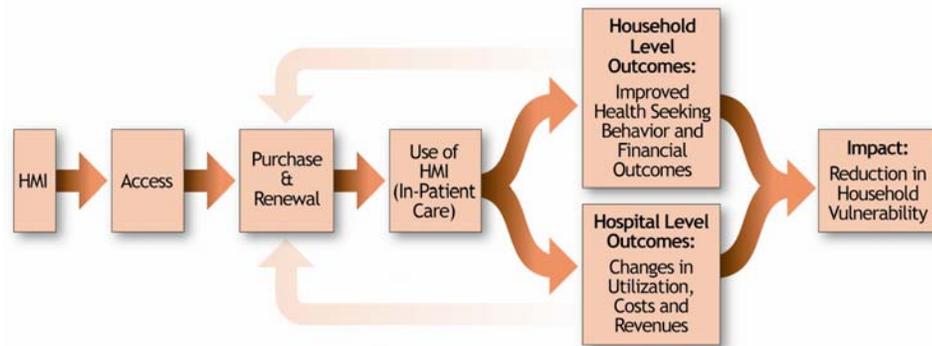
The Financial Services Assessment (FSA) Project is fundamentally concerned with whether, and how, microfinance innovations alleviate poverty. The purpose of the Health Microinsurance (HMI) innovation, which is supported by the Bill & Melinda Gates Foundation (BMGF), is to protect low-income families in Pakistan from the catastrophic costs of health care. To assess the impact of this innovation, the Outcomes Assessment research sets out to evaluate whether and how the HMI program reduces household vulnerability to health risks.

This chapter reviews the causal model informing the Outcomes Assessment design, it outlines the approach to the Outcomes study, and then presents the key research questions investigated. The chapter describes the research design, then discusses the methodology, and then describes the three research activities including their sample designs. This is followed by a brief discussion of the reliability of the research and the study limitations.

### CAUSAL MODEL FOR THE HMI

Evaluating the impact of HMI on household vulnerability requires that we understand the chain of effects that are precipitated by the introduction of the HMI product. For the HMI to achieve any impact, several things must occur. First, households must have the opportunity to buy the insurance, i.e., they must have access to it. Next, having obtained access, households must purchase the insurance in order to benefit from it. However, the benefits of insurance do not occur unless a policyholder uses the insurance to obtain medical treatment. Once the insurance is used, a chain of outcomes is set in motion. The expected outcomes at the family level are reduced medical-related costs (through improved health risk management) and better health status (through improved health-seeking behavior). Both of these outcomes are expected to reduce household vulnerability in the long run. The use of insurance to obtain medical care also has effects at the participating health-care facilities. In the short term, outcomes include changes in hospital utilization, costs and revenues due to changes on both the demand and supply sides. In the medium to long term, changes in the quality of hospital care are expected although the direction of this change cannot be predicted. If changes in the quality and quantity of hospital care are positive, these effects will also reduce household vulnerability by improving the health status of family members. Figure 4 shows an illustration of the causal pathways by which health insurance is believed to achieve this impact.

**Figure 5: Proposed Causal Model of Impact**



The impact chain or causal model illustrated above is a dynamic set of links: if you change one, the others change in response. Outcomes at the household and hospital level have the potential to increase demand for insurance in the future, as satisfied policyholders renew their own policies and inspire uptake among others. These dynamic linkages are important for the sustainability of the insurance product and thus its impact. Sales and renewals of health microinsurance policies must be high enough for the product to become commercially viable and remain available to the target market. In this way, the causal model also links back to the supply of the microinsurance.

#### **APPROACH TO OUTCOMES ASSESSMENT**

Recognizing that each link in the causal chain is essential for the HMI to have any impact on the target population, the Outcomes Assessment research is designed to evaluate each link in the HMI program. This includes access, purchase, use, household financial outcomes, household health outcomes and hospital outcomes. Impact on vulnerability is defined here as “the existence and extent of a threat of poverty and destitution; the danger that a socially unacceptable level of wellbeing may materialize” (Dercon, 2005, p. 2) and is a long-term process. For this reason, the Outcomes Assessment research focuses on measuring outcomes rather than impact. If we can establish that changes in outcomes did indeed occur as a result of the HMI product, we can presume that given sufficient time, household vulnerability will decline.

The value of researching the entire causal chain is that doing so will allow us to establish a plausible association between variables in the causal chain. With completion of the endline research, this will allow us to better attribute household and hospital outcomes to program implementation. In addition, the approach provides insights into the context in which the HMI is introduced, and how certain features in the environment may play a role in shaping program outcomes.

By means of the baseline research, which is the subject of this report, we will verify and refine the causal model. The baseline study—as exploratory research—provides early indications of the value proposition of the HMI for the population in the Ghizar district and offers contextual basis for framing the appropriate impact questions for the endline research. Additionally, as a point of reference, the baseline study shows how the initial months of HMI’s roll-out in Ghizar district plays out along the causal chain and provides some very initial lessons for the microinsurance industry on what did and did not work in terms of product marketing, distribution and sales. Furthermore, the baseline tells us the initial

conditions in the community and at the health services infrastructure level at the outset of the health insurance program.

## THEORY OF CHANGE FOR THE HMI<sup>5</sup>

The assumptions and propositions underlying the Outcomes Assessment design are drawn from the causal model discussed above. In order for the HMI insurance to have an impact, it must be accessible, purchased and used by the population. We will explore each of these issues separately because the HMI is a new product and none of these things can be assumed. What is learned about these processes can ultimately be used to improve the program and its impact. The three assumptions about access, purchase and use will be verified empirically. Exploring these topics will enhance understanding of the context within which the product has been introduced, who the product does and does not reach, and factors that promote or inhibit people from purchasing it. The three propositions relate to the program outcomes and will be evaluated with the endline study. If Propositions 1 and 2 are supported by the evidence, then it can be concluded that household vulnerability will be reduced over the long term.

- Assumption 1: Hospital microinsurance is accessible to the target population in Ghizar District.
- Assumption 2: Hospital microinsurance is purchased by the target population.
- Assumption 3: Hospital microinsurance is used by the target population.
- Proposition 1: Policyholder households who use the HMI experience positive health outcomes through improved health-seeking behavior, including shorter delays in seeking health care.
- Proposition 2: Policyholder households who use the HMI experience positive financial outcomes through improved risk management behaviors that result in reduced out-of-pocket costs for hospital care.
- Proposition 3: The HMI has positive outcomes for covered inpatient service providers.

The next section briefly reviews the assumptions about the role of each element in the causal model and presents the study's key research questions related to each element.

## ACCESS

In the FSA project, access is defined as the freedom or ability to obtain or make use of something. Here it is refined to mean *the opportunity to buy the HMI insurance*. Access thus determines both how many and what types of households can benefit from the health insurance. Access is a necessary but not a sufficient condition for impact to occur.

The HMI is the first health insurance product to be offered in the Northern Areas of Pakistan that is, in many respects, available to the general public. Household access to the HMI will not be universal due to the eligibility criteria put in place

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<sup>5</sup> A more detailed discussion of the theory of change for the HMI is presented in Annex 2.

to reduce adverse selection. The indicator of household access to the HMI is the opportunity to purchase it. Key questions in the baseline study that explored access to the HMI included:

- Which *communities* had the opportunity to buy the HMI and which ones did not? Why?
- Which *households* had the opportunity to buy it and which ones did not? Why?

These questions were explored in the baseline study through focus group discussions with Ghizar residents and individual interviews with key informants at FMiA and in the community.

## PURCHASE AND RENEWAL

Purchase is the next link in the causal chain. Like *access*, *purchase* is an intermediate variable that by itself has no impact on households beyond the cost of the premium. Purchase however is necessary in order for households to obtain the benefits of lower cost health care that the HMI provides. Annual purchases of the HMI, i.e., renewals, are required to ensure positive household outcomes since health risks may occur at any time.

Household willingness to buy insurance is assumed to be based on their understanding of the product, the marketing of the product, household preferences and the affordability of the insurance. Household willingness to renew the insurance policy is assumed to depend on household experience and satisfaction with the product, as well as community perceptions and experience with the product that influences group eligibility and future premium costs. Willingness to purchase the HMI is indicated by the completion of the insurance application while purchase of the insurance is indicated by policyholder status. Willingness to renew the HMI is indicated by completion of the renewal application form. The key research questions regarding purchase of the HMI explored in the baseline study are:

- What types of households purchased the insurance? What types did not purchase the insurance? Why or why not?
- How did households make the decision to purchase the insurance?

These questions were investigated in the baseline study through focus group discussions with local residents and individual interviews with key informants in the community.

## USE

The causal model for HMI differentiates between the *purchase* of an insurance policy, to obtain coverage, and its *use* to obtain a benefit when a covered event such as hospitalization occurs. Although buying insurance may provide peace of mind, tangible outcomes primarily result from the *use* of insurance. Since the main objective of the HMI is to protect families from the catastrophic costs of health care, the Outcomes Assessment research focuses primarily on the use of insurance for obtaining inpatient medical care, with inpatient care defined as treatment that requires an overnight stay in a covered medical facility.

Use of insurance will be measured by examining policyholder satisfaction with the health-related benefits provided by the insurance and with insurance

processes, such as checking in and out of the hospital and making claims for reimbursement. These indicators will be explored in the endline study through key questions such as:

- What is the policyholder experience when using the insurance?
- Why do households renew or not renew their policies?
- Does the insurance product meet their expectations?
- Do policyholders feel that they have received value for their money?

## **OUTCOMES**

For policyholder households, use of insurance is expected to reduce the negative impacts of ill health (see Annex 2). Better health outcomes result through improved health-seeking behavior, while better financial outcomes result from the use of lower stress risk management strategies. Policyholder use of insurance has effects on not only the households that use the HMI, but also on the health facilities that provide the medical care. At the health facilities, patients' use of the HMI insurance is expected to increase demand for hospital services, and this increased utilization in turn to changes in costs and revenues. Over the longer term, changes in quality of care can be expected (see Annex 2) but it is not possible to predict whether these changes will be positive or negative. Negative effects could occur if health facilities become overcrowded or health providers limit treatment for insured patients. Positive effects could occur if higher revenue is earned and applied to investments in new equipment or medical personnel.

### **Household-level Outcomes**

#### **LOWER STRESS HEALTH RISK MANAGEMENT BEHAVIOR**

The HMI is expected to enable households to better cope with unexpected health expenditures. It is also expected to lower household vulnerability over the long term by allowing them to switch from using high stress coping strategies (such as selling productive assets at fire-sale prices or depleting savings) to lower-stress and lower-cost alternatives. Financial outcomes at the family level will be explored through an examination of household health risk management behaviors and out-of-pocket expenditures for hospital care.

At the baseline, household risk management behavior was explored with the following research questions:

- What are the costs of health care in the region?
- How do people currently pay for health care?
- What is the range of financial risk management strategies available to households facing health shocks that require hospitalization?
- Who are the significant providers of formal and informal risk-management products in the market?
- What are the terms and conditions of these products and services?

- What factors influence eligibility and govern access to these financial services and products?

These questions were examined through key informant interviews with financial service providers and community leaders as well as focus group discussions with consumers. At the endline, these questions will be revisited and along with questions on the out-of-pocket costs incurred from hospital care.

#### **IMPROVED HEALTH-SEEKING BEHAVIOR**

Household health-seeking behavior is assumed to change as the cost of inpatient treatment is lowered through the use of the HMI. Not only will demand for hospital services increase, but as the relative costs of hospital care shifts, the demand for hospital treatment will also change qualitatively.<sup>6</sup> It is assumed that the HMI will shift demand from other hospitals to AKHSP facilities.

Indicators of changes in health-seeking behavior as a result of using the HMI are:

- seeking treatment without delay;
- switching to better quality hospitals which implies shifting from using free government hospitals to using fee-for-service facilities, such as the CMH or AKHSP hospitals;
- more frequent use of hospitals;
- seeking hospital care as the first choice in health care; and
- increasing the rate of attended births at hospitals or MCHs.

Household health-seeking behavior was explored with the following key questions:

- What are the common health-care needs in the community that require hospitalization? What are the costs involved in obtaining hospital care?
- What are the health-care facilities and services available and accessible to the target market?
- What factors govern access to health-care facilities?
- What are the community's preferences for the available health-care facilities?

These questions were examined in the baseline study through key informant interviews with health-care providers, stakeholders and community leaders as well as focus group discussions with consumers. These questions will be revisited in the endline research.

#### **Hospital-level Outcomes**

Hospital outcomes in terms of quantity and quality of care will be examined in the Outcomes Assessment. Increases in the quality of health care will increase

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<sup>6</sup> For ease and efficiency, this report uses the word hospital to connote health care facilities that provide inpatient or overnight medical care. In some cases, the more precise terminology based on the mix of services provided would be "medical facility."

the “value for money” of the HMI for the policyholder and of hospital treatment for the uninsured. This may also result in increased demand for the insurance.

At the hospital level, increased demand for hospital care can have several effects. Not only is volume of use expected to increase overall, but preferences for hospitals may shift. Changes in hospital status can be expected as volumes of hospital care adjust, services shift between outpatient and inpatient treatment, and patterns of treatment change. The overall direction of the changes in AKHSP hospitals’ costs and revenues cannot be predicted. On the one hand, increased hospital usage should enhance hospital revenue; however, net revenue will depend on the extent of downward pressure on costs per treatment experienced by the hospital (see Annex 2). The availability of hospital services for uninsured households may also adjust due to changes in access and cost, resulting in spillover effects such as changes in hospital use by non-policyholders.

The indicators of hospital quality and quantity include: increases in staff or services offered, investments in new equipment or services, and increases in capacity such as numbers of beds.

These were explored in the baseline study with the following key questions:

- What is the existing health-care landscape?
- What is the current utilization of available health-care providers (HCPs)?
- What are the costs and revenues associated with the current utilization levels at the HCPs?

The baseline study investigated these questions through individual interviews with health-care providers and analysis of hospital and MCH data provided by health-care facilities. The assessment of hospital outcomes is restricted to outcomes in the AKHSP health system due to limited availability of hospital level data from other health-care systems.

## **METHODOLOGY**

The baseline Outcomes Assessment research was carried out with qualitative methods. Primary data were collected with structured individual interviews, focus group discussions (FGDs) and participatory rapid appraisals (PRAs). In addition, secondary research was carried out through literature reviews and analysis of administrative data from health-care providers. For logistical and efficiency reasons, the field research was organized into three separate activities roughly based on the data source. These three research activities, which were undertaken almost simultaneously, are referred to here as:

- Baseline Demand study
- Baseline Financial Services study
- Baseline Hospital study

The methodology for each of these studies is described below. More details on the key research questions addressed by these studies and the study samples are provided in Annex 2.

## LOCATION OF FIELD RESEARCH

The baseline research was carried out in the Ghizar district and Gilgit town within the Northern Areas of Pakistan. Key informant interviews with health-care and financial service providers were conducted in Gilgit town and in Ghizar district. The focus group discussions (FGDs) took place entirely in Ghizar district in 11 different villages.

## RESEARCH TEAM

The research team was led by Elizabeth McGuinness of Microfinance Opportunities (MFO). The Financial Services research was conducted by Ayesha Tayyab, a microfinance consultant based in Pakistan. The Hospital research was designed by Gary Gaumer of Simmons College, and supervised by Holly Korda, a health systems consultant based in the US, while the fieldwork was conducted by Sher Hafiz, a local health expert. The Demand research was primarily the responsibility of Jennifer Mandel, formerly of MFO. The field-based focus groups were conducted by a local team consisting of two FGD moderators, two FGD recorders and one interpreter. The local research team was trained by MFO researchers in qualitative research techniques and the study protocol.

## BASELINE DEMAND STUDY

The baseline Demand research investigated the existing health-seeking and risk management behaviors of Ghizar residents, before the insurance became operational. The research assessed the needs and preferences of households for health-care providers and health risk management financial products and services. It examined the role of transaction costs in shaping those preferences. And it explored household access to the HMI as well as household decisions to purchase the HMI.

### BOX 1

#### *Baseline Demand Study Tools*

##### **FGD TOOL 1: HOUSEHOLD HEALTH-SEEKING BEHAVIOR**

Explored existing household health-seeking behaviors, as well as preferences for the available health-care providers by socioeconomic group.

##### **FGD TOOL 2: HOUSEHOLD RISK MANAGEMENT BEHAVIOR**

Examined existing risks facing households and the coping mechanisms used to manage these risks and consumer preferences for risk management strategies including use of informal and formal financial products.

##### **FGD TOOL 3: HOUSEHOLD DECISIONMAKING AND TRANSACTION COSTS**

Investigated the access to and purchase of the HMI and examined how the purchase decision was made. A PRA component was used to capture information on the transaction costs of obtaining health care and financial services.

##### **SEMI-STRUCTURED INTERVIEW GUIDE**

This guide was used to interview key community informants on many of the same questions that were asked of the consumer groups using FGDs.

## Baseline Demand Study: Methodology and Data Collection

Data were collected from local consumers using three research tools that combined FGDs and participatory rapid appraisal (PRA) exercises. A structured individual interview guide was used to collect data from key informants (see Box 1).

## Baseline Demand Study: Sampling Strategy

A multi-step process was used to select the sample of household representatives. Conditions in the field required a minor deviation from the planned sampling strategy (see Limitations of the Study section).

The sample design consists of four categories of households based on eligibility and desire to purchase the HMI insurance (see Table 2). Within each individual LSO, some VO/WOs will be eligible to buy insurance and others will not be. Within eligible VO/WOs, some households may choose to purchase insurance (Policyholders) and some may not (Eligible Uninsured). Likewise, within the ineligible VO/WOs there will be households that wanted to purchase the insurance, but were not able to (Policyseekers), and households that did not want it (Ineligible Uninsured).

**Table 2: Demand Study Household Sample Categories**

	<i>Eligible VO/WO</i>	<i>Ineligible VO/WO</i>
<i>Households Who Self-Select to Purchase the HMI</i>	Policyholder	Policy Seeker
<i>Households Who Self-Select to NOT Purchase the HMI</i>	Eligible Uninsured	Ineligible Uninsured

Distance from the covered hospitals, particularly those in Gilgit, was hypothesized to be a factor in household HMI purchase decisions. The sample design also distinguished households based on location by establishing two distance categories: “Near” and “Far”. The team purposively selected the Sangum LSO in Puniyal to represent the “near” category and the Al Karim Development Organization in Taus, Yasin *tehsil*, and the Gupis Rural Support Program, in Gupis, Gupis *tehsil* to represent the “far” category. Based on the headquarters of each LSO, the Sangum LSO is located 70 kilometers (112 miles) from Gilgit town, the Al Karim LSO is more than 135 kilometers (216 miles) away and the Gupis RSP is 110 kilometers (176 miles) from Gilgit. These particular LSOs were also selected because they had a higher proportion of eligible VOs and WOs from which research respondents could be selected (see Limitations section).

Next, the VO/WOs and then the households within each of the distance categories (represented by three LSOs) were stratified according to the four categories of households. The research team randomly selected households who had applied for insurance (policyholders and policy-seekers) from lists provided by the LSO or FMiA. The households who had not applied to purchase insurance were selected randomly by the respective LSO.

For each eligibility and location category, three FGDs, of approximately eight participants each, were conducted using each of the three FGD research tools (see Box 1). Mixed groups of men and women were used for the first two tools and the third tool used single-sex groups. It was assumed that women would be more

forthcoming about household decisions about HMI purchases in women-only groups. Key informants in the LSOs who are knowledgeable about the financial and health-seeking experiences of community members were purposively sampled and interviewed (see Tables in Annex 2 for more details on the sample for each study.) In total, 243 local residents participated in 32 focus groups.

The research will be repeated at the endline with similar samples of respondents to assess changes in consumer health-seeking and risk management behaviors in response to the use of the HMI.



**Women's Organization, Imit, Ghizar district**

### **BASELINE FINANCIAL SERVICES STUDY**

The objective of the baseline Financial Services research was to establish the context in which household health risk management behavior takes place. This allows us to better understand household coping options, preferences and choices. The study explored the available supply of formal, semi-formal and informal financial products for household risk management, including loans, savings or other health insurance. The purpose was to determine which market segments use these products, how they use them, the financial impact of using these products and whether they are appropriate for meeting households' existing health risk management needs. The research will be repeated at the endline to assess whether and how the supply of financial services responds to the introduction of the HMI.

#### **Baseline Financial Services Study: Methodology**

Primary research was carried out through structured individual interviews with representatives of formal and informal financial service providers in Gilgit town and in Ghizar District, as well as key informants in the community. In total, 19 formal financial providers located in either Gilgit town or Ghizar district were interviewed. Six LSO leaders, 15 VO/WO leaders and a small sample of providers of semi-formal and informal finance were interviewed in Ghizar district (see Table A-5).

## **BASELINE HOSPITAL STUDY**

The purpose of the baseline Hospital study was to establish the health-care landscape and the context in which household health-seeking behavior occurs, and to determine the supply and utilization of hospital care before the HMI was rolled out. Hospital administrators and staff at AKHSP hospitals, MCHs, and selected government hospitals were surveyed about baseline conditions at their health facilities in terms of capacity, administration and operations. In addition, they were asked about the community health context and health-seeking behaviors, as well as their expectations about the effects of the HMI. Key community informants were interviewed about both the supply and perceptions of health care in their areas, the health needs of the community and their expectations for the HMI. The Hospital study will be repeated at the endline. The results of this study will be used to establish changes in hospital-level outcomes as well as to provide context for any observed changes in household health-seeking behavior.

### **Baseline Hospital Study: Methodology and Data Collection**

Information for the baseline research was obtained from professional and peer-reviewed literature, secondary data and monitoring reports; health facilities' statistics and administrative data; and site visit interviews with key informants and stakeholders.

Doctors, administrators and other medical staff were interviewed, using structured interview guides, about the quality and quantity of treatment, particularly as regards inpatient care, provided by their facility. They were also asked about their expectations regarding the effects of the HMI on their facility. Predesigned forms were used to collect hospital and Maternal and Child Health clinic (MCH) data from AKHSP facilities and two non-AKHSP hospitals. Local health board representatives were interviewed using a structured interview guide on the supply of health and hospital services in the community and their expectations for the HMI.

Field site visits and interviews with stakeholders representing participating hospitals and MCHs, as well as local health boards (LHBs) throughout Gilgit town and Ghizar District were conducted by a local researcher. The health economist consultant conducted phone interviews with program stakeholders.

### **Baseline Hospital Study: Sampling Strategy**

Within the study location, there are three AKHSP hospitals covered by the insurance: Gilgit Medical Center, Singhal Medical Center and the Extended Family Health Center in Gupis. In addition to these, the Combined Military Hospital in Gilgit is covered on a cashless basis while the government District Headquarters Hospital, also in Gilgit, can be used on a reimbursement basis.<sup>7</sup> AKHSP operates 15 MCHs in Ghizar district and all but one (Faizabad which is in a remote location) are covered by the insurance.

The Hospital Study sample included representatives from five hospitals: the three AKHSP hospitals listed above plus two government facilities, the DHQ-Gakuch and Gupis Civil hospitals which are not covered by the insurance. Nine of the

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<sup>7</sup> At the time of publication of this report, 98 percent of the claims submitted to the insurance company were for cashless care.

covered MCHs were included in the survey: Sherqila, Gakuch, Chatorkhand, Imit, Hundur, Sandi, Yasin Proper, Pingal and Jandrote (see Annex 2 for more details).

The research team aimed to interview a representative of each LHB that corresponded to a sampled AKHSP facility, but fell short of interviewing everyone associated with the sampled MCHs. Nevertheless, seven LHBs and two Regional Health Boards were interviewed throughout Ghizar district and in Gilgit town. The purpose of these interviews was to gather expert “outside” opinions of the health facilities and community health-seeking behaviors. Additionally, the AKHSP regional director for the Northern Areas was interviewed bringing the total number of informants for the Hospital study to 24.

## RELIABILITY AND VALIDITY OF THE STUDY

The baseline Outcomes Assessment employed several methods to enhance the reliability and validity of the results. The research:

- included three separate studies covering all relevant aspects of the problem (the financial landscape, the health-care landscape and consumer perspectives);
- employed multiple data collection methods including interviews (66 total), focus group discussions (32 with a total of 243 participants) and a review of secondary data;
- cross-referenced research questions across the discussion and interview guides to allow for triangulation;
- employed multiple data sources reflecting diverse perspectives and experiences including key informants in various Network agencies, the financial services industry, health-care providers, community organizations, and community members; and
- used different investigators with specialized expertise for each of the three studies.

In addition to this, research procedures included:

- using a documented research protocol including the data collection tools;
- establishing a chain of evidence through preliminary key research questions that are linked through the documented research protocol to the findings and their respective data sources; and
- developing of a research database.

These measures, which included triangulation of data, methods and investigators, establishing a chain of evidence, and documenting the research protocol and all data collected, enhance the study’s construct validity and the reliability of its results.

## LIMITATIONS OF THE STUDY

The baseline Outcomes Assessment faced challenges with the sampling during both the Hospital study and the Demand study field research.

Due to limited access to government and military hospitals, the baseline hospital study mainly focuses on the AKHSP system. Furthermore, the two government hospitals that agreed to participate in the study are not covered by the HMI insurance program.

The actual sample frame for the Demand study deviated from the planned sample, resulting in an underrepresentation of certain kinds of households. This occurred for two reasons:

- There was difficulty identifying an eligible LSO that was “far” from the Singhal and Gilgit hospitals. This was partly due to the fact that insurance sales were lower in areas that are more distant from the main towns and hospitals. It was also due to confusion at FMiA about the proportion of eligible VOs and WOs within some LSOs as the HMI sales were ongoing. Originally informed that the Al Karim Development Organization (Taus LSO) was the most distant LSO with a high level of eligible VOs and WOs, the team traveled to Taus to select the sample. Upon arrival, the team was informed that the Taus LSO area was in fact “ineligible” for the HMI. Not having yet secured another “far” LSO, the team decided to select a small sample of Ineligible Uninsured and Policyseeker households in the Taus region. Four FGDs were subsequently held in that area. Shortly thereafter, the Gupis Rural Support Program (Gupis LSO) was identified as the second “far” LSO, as it had a high number of eligible VOs and WOs. The remaining sample frame for the “far” category, a total of 12 focus groups, was selected from the Gupis LSO area. However, the Taus LSO region is located up the Yasin valley and is significantly further away from the Gupis, Singhal and Gilgit hospitals than the Gupis LSO area. The substitution of Gupis households for Taus households in the sample may have resulted in less contrast in attitudes, preferences and behaviors of the “far” and “near” samples. The research team later learned that the Taus area did indeed have eligible VOs and WOs. As a result of substituting Gupis households for Taus households, we have less evidence about health-seeking and health risk-managing behaviors of households in distant locations than those in near locations.
- The second challenge was that the participants who showed up for the discussions in the Gupis area were not always the participants who had been invited. This was particularly true for the groups that had been invited to participate in the FGD on the subject of household decision-making about HMI purchases. In this case, we had an overrepresentation of households that did not want to buy the insurance and an under representation of those who did. The impact of this imbalance is mitigated to a large extent by the fact that the FGD guide asked participants to discuss the opinions and behaviors of their community toward the HMI. For this reason, the focus groups should still have provided sufficient information on the range of perceptions of the insurance and the range of reasons for buying or not buying the HMI in their community. We may, however, have missed some specific stories about why and how individual households bought the insurance.

A review of the resulting sample reveals that a majority of FGD participants are VO or WO members. This is not surprising since the HMI was marketed through the VOs/WOs and the LSOs took the lead on inviting non-policyholders to the focus groups. This may have resulted in a bias in the non-policyholder sample, with VO and WO members being overrepresented. An additional concern is that the research indicates that most VO/WO members are from the middle-income group. As a result, the sample may under-represent the rich and poor segments of the population. The research also indicates that the middle-income group is

the most likely to purchase the insurance. Therefore we believe the sample effectively represents the opinions and perceptions of the target market for the insurance but it may under represent opinions of groups at either end of the socioeconomic spectrum that are less likely to purchase the insurance.



**Cows, Ghizar district**

## IV. Findings: Health and Wealth in Ghizar District

This chapter describes the health and wealth contexts in which the Health Microinsurance was introduced in late 2008. A socioeconomic profile, including a wealth ranking, of the study population provides a framework for understanding who might purchase the HMI. A health profile bringing in the views of both health-care providers and consumers elucidates the extent to which ill health is a problem in this community. Together they begin to build the case for the value proposition of the HMI for the Ghizar population.

### THE DEMAND STUDY SAMPLE

Altogether, 243 people participated in the 32 Demand research focus group discussions. Of the FGD sample, 59.3 percent were women and 40.7 percent were men. Forty-eight percent of the sample had either bought the insurance (policyholders) or wanted to buy the insurance (policy-seekers). Fifty-two percent lived in areas near the major hospitals in Singhal and Gilgit.

**Table 3: Total Numbers of FGD Groups and Participants by Category**

	<i>Near LSOs</i>				<i>Far LSOs</i>				<i>Total</i>
	<i>Eligible VO/WOs</i>		<i>Ineligible VO/WOs</i>		<i>Eligible VO/WOs</i>		<i>Ineligible VO/WOs</i>		
	Policy-holders	Eligible Uninsured	Policy-seekers	Ineligible Uninsured	Policy-holders	Eligible Uninsured	Policy-seekers	Ineligible Uninsured	
<b>No. of FGDs</b>	4	4	4	4	3	5	4	4	32
<b>Total Participants in FGDs</b>	35	32	29	31	27	31	28	30	243
<b>Total Participants by Eligibility</b>	67		60		58		58		243
<b>Total Participants by Location</b>	127				116				243

The FGD respondents furnished researchers with social and economic data about their households by means of a short socioeconomic profile survey. A comparison of this data with statistics collected by the Aga Khan Rural Support Program (AKRSP) suggest that the FGD participants are poorer than the average person living in the Northern Areas and perhaps even slightly poorer than other residents of Ghizar district (see Table 4). The sample had a higher representation of women than the underlying population; they were on average less educated; and a greater proportion lived in a joint family setting. The sample group also reported smaller land holdings and fewer fruit trees, two key indicators of wealth

in this region. These findings are consistent with our impression that the sample overrepresented the middle-income segment of the population.

Household income data were also collected from a number of key informants including the VO/WOs, LSOs and formal financial service providers in order to complement the AKRSP data, which was somewhat out of date. Among these sources, the LSO and formal financial service providers are most likely to have a good sense of the Ghizar population's income levels reflecting their roles within the communities. Monthly incomes for middle class families, as reported by these key informants, range between 6,000 PRs (\$87 USD) and 7,000 PRs (\$101 USD) at the low end to between 9,000 PRs (\$130 USD) and 12,000 PRs (\$174 USD) at the upper end. This report will use these figures throughout.

**Table 4: Participant Socioeconomic Data with a Comparison to Regional Statistics**

<i>Indicator</i>	<i>Survey Participants</i>	<i>Ghizar District</i>	<i>Northern Areas</i>
Total Participants	243	NA	NA
Men	41 %	49 %	51 %
Women	59 %	51 %	48 %
Age (Average)	40	NA	NA
Completed Primary School* (%)	46.5 %	60 %	59 %
Joint Families (%)	62 %	39 %	55 %
Size of Household (Average)	10 persons	11 persons	10 persons
Household per capita Monthly Income (Mean)**	PRs 1,172 (\$17.00)	PRs 1,498 (\$21.71)	PRs 1,821 (\$26.40)
Landholdings (Average Kanals)	15	23	28
Fruit Trees (Average)	30	78	133
Cell Phone Ownership	64%	NA	NA

\*Note: The AKRSP Reports use the completion of primary school as their indicator of literacy. Therefore, this figure corresponds to their figure for literacy rates.

\*\* Note: The data from AKRSP was reported on an annual basis. To make it comparable to the data various key informants reported on a monthly basis it was divided by 12.

The socioeconomic data collected from each FGD participant also indicate a low usage level of formal financial services. Twenty-four percent (59 participants) used a formal financial institution of any kind in the past year, of which

- 14 percent (34 participants) banked with The First Microfinance Bank;
- 26 percent had taken a loan in the past year, 9 percent of these were with a formal financial institution and the rest were with friends, relatives or an informal lender such as a shopkeeper or moneylender;
- 84 percent had some form of savings, 70 percent of which were with participants' local VO or WO rather than a formal financial institution; the other 14 percent were with a mix of formal, semi-formal and informal financial service providers (e.g., commercial banks (3 percent), cooperative societies (1 percent), banks (3 percent), microfinance banks (2 percent) or some other location, possibly their homes (5 percent));
- Only 1 percent participated in a ROSCA (Rotating Savings and Credit Association); and

- 49 percent of the sample wanted to purchase the Health Microinsurance product and 26 percent were eligible and able to buy it. Additionally, 9 percent (21 participants) of the sample reported having other kinds of health insurance. Sixteen percent of the sample had a life insurance policy for either themselves or their spouse, while 4 percent had health insurance as well as life insurance. A small number reported having livestock insurance (4) and property insurance (1).

## CHARACTERISTICS OF THE STUDY AREA POPULATION

The FGD respondents, along with key informants, were asked to describe their communities and their neighbors. The dominant occupations in the Ghizar district are farming and animal husbandry with almost all households reportedly engaged in agriculture in some way. Major crops include wheat, maize, potatoes and barley. Some people have wage employment in the private and public sectors, particularly the military. Entrepreneurship is not as popular in the area, but there are some small businesses such as shops and tailoring. Local residents grow vegetables and fruits for sale downriver in Gilgit and the rest of Pakistan. The population in general faces problems in marketing their products, and men in the area face problems finding employment locally.

Joint family households are common in Ghizar district. In this context, there are usually multiple income earners within each household (the average among the demand study FGD sample is two). Joint families have on average 10 members with a maximum of about 25 people. A key livelihood strategy used by joint households is to diversify the occupations of income earners. Thus, one person typically runs the family farm while others work in the private or public sector, especially the military. Stakeholders confirmed this and also indicated that the main household decision-maker is usually the most senior male family member.

One factor that distinguishes the population of Ghizar is religion. It is predominantly Ismaili (70-80 percent), with minority Sunni (30 percent) population and a very small Shia population.

Focus group participants were asked to describe the people living in their communities based on the categories that are the most important in the area and to identify the different groups by their key characteristics. Although some groups differentiated people based on caste (which equates to ethnic group) or education level, most emphasized socioeconomic status. Regardless of categorization, most focus group participants described their communities as consisting of three socioeconomic groups: Poor, Middle Income and Rich or Well-to-Do. Table 5 provides a snapshot of major differences among these groups based on the key characteristics identified by participants. Throughout this report we refer to these groups, sometimes referring to the Middle Income group as the Middle Class. It should be remembered that these socioeconomic categories are “Middle Income or “Rich” only in terms of their neighbors and within the context of the Northern Areas.

A key indicator of wealth within these communities is how well households can accommodate guests. The importance of this factor reflects the cultural significance of hospitality in this area. A related indicator of wealth is the extent to which a host can provide guests with a cup of tea with sugar and milk. The regular availability of milk for tea is a function of the type and number of livestock a household owns. Additionally, having a separate room in the house is necessary to accommodate guests. Thus, house size and livestock holdings are important indicators of a household’s socioeconomic status.

Stakeholders confirm the relative poverty of the Poor group indicating their ownership of very small tracts of land as evidence. Given their limited incomes from farming, and casual or wage labor, the poor often take small short-term loans primarily to meet basic household consumption needs. They borrow from their VO/WOs, shopkeepers and/or moneylenders to make up their income deficit. Households belonging to the Middle Income group are able to meet their basic needs because they have enough land on which to grow sufficient food to last them most of the year. Other household needs are met through low-level public and private sector wage labor. One stakeholder estimates that 50 percent of the men in this group work outside the area. Those employed in the military or outside their villages usually remit money home through the post office, friends or bring it themselves when they visit during holidays.

**Table 5: Socioeconomic Categories as Defined by the Community**

	<i>Poor</i>	<i>Middle Income</i>	<i>Rich</i>
<i>Family Size*</i>	8-10 children	6-8 children	3-5 children
<i>Education**</i>	None or very limited public school education	Attend public school or in a few cases Diamond Jubilee schools	Attend private schools including some in Gilgit or other cities & obtain higher education
<i>Land Ownership (kanal)***</i>	1-2	7-17	25+
<i>Crops</i>	Don't grow enough to feed themselves and must buy food most of the year (10-12 months)	Grow enough for majority of year (6-8 months) and have a few luxuries	Grow surplus or more than enough to feed themselves for full year
<i>Fruit Trees****</i>	2-5	10-60	50+
<i>Livestock</i>	1-2 cows, goats or sheep and not enough for regular milk tea	3-8 cows, goats & sheep and enough for regular milk tea	14+ cows, goats & sheep and enough for regular milk tea & butter
<i>Housing</i>	Small (1 room) - poor quality (stone, mud, & wood)	2-3 rooms - better quality (partially made of mud & wood & partially made of cement & brick)	Large (many rooms) & well built (cement & brick w/sheet metal roof)
<i>Diet</i>	2 meals/day and never eat butter or meat.	3 meals/day and occasionally eat butter & meat.	3 meals/day and can eat butter & meat regularly
<i>Health Facilities</i>	Can't afford and go to government hospitals in an emergency	Usually go to government hospitals and go to AKHSP in an emergency	Can afford private providers & AKHSP
<i>Occupations</i>	Casual labor	Low level wage employment in the public sector or some self-employment (trade, skilled craftsmen)	High-level public & private sector employment

\* Note: Most people live in joint households in which one member is responsible for agricultural activities. Other family members may be engaged in other occupational activities.

\*\* Note: The AKRSP Reports use the completion of primary school as their indicator of literacy. Therefore, this figure corresponds to their figure for literacy rates.

\*\*\* Note: 1 kanal of land = 1/8 acre

\*\*\*\* Fruit trees - Fruit trees are a significant source of income in the area. This indicator is reported here because it ties in with data collected with the socioeconomic survey for every FGD respondent and data reported from a pre-existing survey in the area. Unfortunately only 2 FGDs discussed fruit trees which may explain the large variation in the two sets of data.

Rich households, according to some participants, can be recognized by their cars because they are the only group likely to own them. While the Well-to-Do have

significant landholdings, they do not carry out farming themselves. Rather they are employed in the upper echelons of the military and government service while poorer neighbors provide casual labor for their farms.

The middle-income group comprises the largest socioeconomic group in the region. Middle-income households were reported by several FGDs to comprise around 80 percent of all households in their communities. While the data presented in Table 5 are an average of the findings from the FGDs, community characteristics varied across locations, in some cases noticeably. The relative share of the middle class did not appear to vary by a community's distance from Gilgit, but the description of their relative well-being did vary by distance.

Villages that were closer to Gilgit reported a wider variety of occupations and a higher education level for women. More significantly, most of the "near" sample villages were located in climate zones that allow two crop harvests annually. Most of the "far" sample locations reported that their villages were in single cropping zones. As a result, "near" villages are better off in general than "far" villages due to the overall reliance on agricultural activities. Given that the far locations have lower agricultural productivity, it is perhaps not surprising that these areas, particularly Taus, reported a very high level of employment in the military.

## HEALTH PROFILE OF THE POPULATION

This report provides two distinct perspectives, that of providers and that of patients, in examining the specific health concerns that the people of Ghizar face. There is considerable overlap in the major health issues they identify. The object here is to better understand the health needs of this population in order to gain insight into household demand for the HMI and to contextualize the potential use of the HMI.

### **Priority Health Conditions: Provider Perspective**

Pakistan has a high population growth rate, together with high rates of infant and child mortality, a high maternal mortality ratio, and substantial communicable and non-communicable disease burdens. The World Health Organization reports:

*Malnutrition, diarrhea, acute respiratory illness, other communicable and vaccine preventable diseases are mainly responsible for a high burden of infant and perinatal mortality, while high maternal mortality is mostly attributed to a high fertility rate, low skilled birth attendance rate, illiteracy, malnutrition and insufficient access to emergency obstetric care services. Furthermore, only 40 percent of births are attended by skilled birth attendants. During 2004, 77,780 cases of pulmonary tuberculosis and 103,416 cases of malaria were reported, while the prevalence of hepatitis B ranges between 3-4 percent and hepatitis C around 5 percent of the general population. Non-communicable diseases constitute a significant proportion of the country's burden of diseases with nearly a third of all Pakistanis over the age of 45 years suffering from hypertension and one in every 11 adults having diabetes mellitus.*

While this description depicts a health profile for Pakistan at the national level, information describing the health status of residents of the Northern Areas and at the district level is extremely limited. Government-sponsored surveys typically do not include this region in official counts and census documents.

**Table 6: Northern Areas Health Project Baseline Survey: Summary Information 1999**

<i>Summary</i>		<i>Demographic Data</i>	
Population	16,540	Crude birth rate	40.7/1,000 pop'n
Households	1,975	population	
Currently married women of reproductive age	2,975	Infant mortality rate	70.0/1,000 live births
Children > 5 years	3,019	Neonatal deaths as % of infant death	38.0%
		Crude death rate	7.5/1,000 pop'n

<i>Primary Health Care Indicators</i>	<i>Total</i>	<i>Ghizar</i>	<i>Gilgit</i>
<i>Women's health</i>			
Mothers received ante-natal care (ANC) during last pregnancy	51%	81%	68%
ANC by Hospital/Health Center/Clinic	85%	86%	91%
TT Vaccination during last pregnancy (2 or more doses)	48%	86%	52%
<i>Place of delivery</i>			
Home	81%	68%	55%
Health Facility	18%	29%	43%
No response	1%	3%	2%
<i>Assistance during delivery</i>			
Doctor/Lady Health Visitor/Nurse	21%	33%	45%
Trained birth attendant	18%	47%	22%
Traditional	59%	15%	30%
Anemia in pregnant women (<10 G/dl)	24%	--	--
Contraceptive prevalence rate	20%	32%	28%
Children <5 years			
Children <5 fully immunized	55%	--	--
Children fully immunized before 12 months of age	41%	72%	66%
Prevalence of diarrhea	42%	8%	51%
Prevalence of pneumonia	23%	12%	28%
<i>Public Health Education</i>			
Mothers know that immunization prevents disease among children	48%	86%	67%
Mothers know what constitutes diarrhea	75%	92%	70%
Mothers know correct mixing of ORS	72%	85%	83%
Mothers know symptoms of pneumonia	48%	81%	64%

Source: Abdur Rahman Associates. Northern Health Project Baseline Survey, 1999

One of the few studies available is a baseline survey of the health status in the Northern Areas conducted by Abdur-Rahman Associates in 1999 for the Government of Pakistan, Northern Areas Department of Health. This survey reports summary information on an aggregate basis for all Northern Areas (see Table 6). Health status indicators for the region show limited primary care provided to support women and children and relatively low attendance by trained professionals for most deliveries (see Table 6).

The report states that the better-than-average health indices in Gilgit and, to a lesser degree, Ghizar districts, especially in the areas of infant deaths, prenatal care, vaccinations and assisted births, is due to the strong presence of the Aga Khan Health Services in those districts.

Another population-based survey, by Ahmed et al (1999) determined the incidence of specific surgical emergencies in the Ghizar district. The survey, administered by trained Lady Health Visitors (LHVs), revealed that unspecified acute abdominal issues were most common among surgical emergencies, followed by childbirth complications and injury (burns, road accidents and falls). Of 408 patients with some form of surgery-related ailment, 85 percent initially addressed the problem at home or close to home in a health center, dispensary or civil hospital. Only 32 percent actually sought surgical care. This suggests that a substantial proportion of ailments requiring some form of surgical remedy frequently go untreated or under-treated.

Drawing on focus groups conducted in Ghizar district in 2004-2005, Shaikh et al. (2008) found the common adult illnesses to include malaria, dyspepsia, hepatitis, upper respiratory tract infections, asthma, hypertension, joint pains and depression. Frequently mentioned women's issues include urinary tract infections and gynecological problems, especially arising from use of family planning methods. In children, frequently mentioned issues were upper respiratory tract infections, mumps and pneumonia in winter, and typhoid, diarrhea, skin diseases, eye infections and worms in summer.

#### **Priority Health Conditions: Patients' Perspective**

Participants in this study identified what they perceived to be the major health issues in the area in 24 of the FGDs. Common health problems identified by participants overlap significantly with those identified by Shaikh et al. (2008). Respiratory problems, particularly asthma and pneumonia, were the most frequently mentioned problem, both as a general health concern and with specific reference to the elderly, men, youth and children. This indicates that this health problem is widespread among all groups, but affects the elderly and children more than other groups. The second most widely-cited health concern was stomach problems, especially diarrhea, and was also raised both as a general health concern and with specific reference to children. Table 7 lists the most commonly mentioned ailments both for the population in general and specific subgroups within it. Women's health concerns largely revolve around reproductive issues. Specific ailments include delivery problems, heavy bleeding and anemia. Interestingly, the use of intrauterine devices (IUDs) as the main form of contraception is blamed for most of these.

**Table 7: Common Health Problems as Reported by Focus Group Participants**

<i>Most Common Health Problems as Ranked by Participants</i>	<i>Men</i>	<i>Women</i>	<i>Elderly</i>	<i>Youth/Children</i>
Respiratory Problems	X		X	X
Stomach Problems				X
Joint Problems	X	X	X	
High Blood Pressure	X	X	X	
Heart Disease	X	X	X	
Urinary Tract	X		X	X
Eye and Ear Problems			X	
Depression	X	X	X	X
Appendicitis	X	X	X	X
Cancer	X	X	X	X
Dysentery	X	X	X	X
Malaria	X	X	X	X
Typhoid	X	X	X	X

Participants indicated that many of these ailments require hospitalization. Table 8 indicates the range in number of days of hospitalization groups perceived was required for some of these conditions. Interestingly, a number of those mentioned, most notably diarrhea, are ones that in other contexts would not require hospitalization except in extreme cases.

Both providers and consumers of health services indicated that the population of the Northern Areas generally, and Ghizar district specifically, face a number of critical health challenges. Moreover, some of the conditions prevalent in this area are extremely serious requiring inpatient treatment. The range of conditions that FGD participants indicate require hospital care and the length of stay necessary for these, suggests that the HMI would indeed be useful to this population, especially because it covers inpatient treatment.

**Table 8: Days of Hospitalization Required for Selected Medical Conditions as Reported by Focus Group Discussion Respondents**

<i>Conditions Requiring Hospitalization</i>	<i>Range of Hospitalization Required (days)</i>	<i>Average Days in Hospital</i>
<i>Minor Illness</i>		
Diarrhea	1 to 4	2.50
Asthma & Severe Cough	3 to 6	4.75
Pneumonia	4 to 6	4.75
<i>Critical Illnesses &amp; Surgeries</i>		
Critical Malaria	2 to 6	4.00
Appendicitis	5 to 6	5.75
Kidney Problems	2 to 6	7.25
<i>Severe Problems</i>		
Heart Problems	5 to 75	30.00
<i>Delivery</i>		
Normal	1	1.00
C-Section	6.50	6.50

## SUMMARY

This section reviewed the socioeconomic status of the sample and district population. It found that the population is dependent mainly on agriculture for earning income. The middle class, as defined by residents, is the largest socioeconomic group and their incomes range from 6,000 to 12,000 PRs monthly (\$87-\$178 USD). A large share of the population lives in joint families, which has implications for the demand for the HMI.

This discussion demonstrates the importance of health issues as a risk factor for people in Ghizar. In sum, the population of Ghizar is less well off compared to populations in other parts of the Northern Areas. They face a number of serious medical conditions, many of which require hospitalization. Taken together, these findings suggest that there may be a role for the HMI in this district. The next chapter introduces the health-care facilities available to Ghizar residents.

# V. The Health-Care Landscape

This chapter presents baseline findings on the health-care systems found in the Ghizar district and Gilgit town. When combined with the endline research, these findings will be critical for assessing the proposition that the HMI has positive outcomes for the covered health-service providers. The chapter first maps out the health-care landscape of the study area in order to provide the context for understanding both household health-seeking behavior and impacts on health-care providers. It then reviews the data on current utilization and costs at AKHSP health-care services. The report then presents the challenges and opportunities posed by the HMI implementation as those were perceived by health-care stakeholders. An understanding of the existing health-care landscape available to Ghizar residents provides further insight into the potential value proposition of the HMI for this population.

## THE HEALTH-CARE LANDSCAPE

The formal health-care system in Ghizar and Gilgit Districts is composed of three main health-care systems that include public and private sector providers: government, military and the Aga Khan Health Services, Pakistan (AKHSP). Each of these health-care systems is composed of a hierarchy of health-care facilities that provide increasing levels of care. The specific composition of each system is depicted in Table 9, where facilities are listed from lowest to highest level of care provided. Each system includes a wide array of health-care providers: physicians, nurses, dispensers and trained non-professionals including Lady Health Visitors (LHVs). In addition in the Northern Areas region there are a few other minor private health-care providers including formal facilities such as health clinics, physicians, the Vision International Eye Hospital and Family Planning Association of Pakistan (FPAP) facilities in addition to informal providers such as homeopaths and faith healers. The discussion below focuses on the three main health-care systems, because they service the majority of the population and more importantly, they are included in the HMI cover.

Health-services delivery throughout Pakistan is characterized by health workforce shortages and imbalances that are especially acute in rural and remote regions, including the Northern Areas generally and Ghizar district specifically. This includes insufficient numbers of health facility managers, nurses, paramedics and skilled birth attendants. For example, the Northern Areas (like many regions in Pakistan) has a shortage of trained female health professionals, contributing to the high rate of maternal deaths in a culture that requires women to seek advice and medical care only from other women. The government initiated efforts to help address these needs by promoting basic health care at the community level, including training LHVs to assist with deliveries.

**Table 9: Main Health-Care Systems in Ghizar District and Gilgit Town**

<i>Increasing Levels of Care (from lowest to highest)</i>	<i>Government System</i>	<i>AKHSP System</i>	<i>Military System</i>
Auxiliary Health Services	First Aid Posts	NA	NA
	Dispensaries		
MCH Clinics	Maternal & Child Health centers (MCHs)	Maternal & Child Health centers (MCHs)	NA
Multi-purpose Health Clinics	Basic Health Units (BHUs)	Extended Family Health Centers (e.g., EFHC- Gupis)	Fauji Foundation Primary Health-care Centers
Hospital Services	Civil Hospitals (at the Tehsil level, e.g., Gupis, Singhal)	Medical Centers (e.g. Singhal MC & Gilgit MC)	NA
	District Headquarters Hospitals (e.g., DHQ-Gilgit, DHQ-Gakuch)		Combined Military Hospital (e.g., CMH-Gilgit)

Since August 2001, the national government has charged district levels with financial and administrative authority for the provision of health care, as well as for health promotion. While, the public sector serves patients without charge, it is widely acknowledged to be under-staffed and under-resourced, with medicines and surgical supplies often unavailable or in limited supply. As a result, the private sector, which is primarily a fee-for-service system, serves nearly 70 percent of the population.

Within the study area, much of the development of private health-care facilities is the result of Aga Khan agency initiatives. The AKHSP has concentrated on delivery of health services to vulnerable groups, especially mothers and children in these areas. These providers and AKRSP organizations constitute a natural network for the HMI. A listing of all AKHSP facilities and their characteristics in the Ghizar and Gilgit districts is included in the annex to this report (see Table A-9).

### **Hospital Services**

Hospital coverage, primarily at AKHSP facilities and some military and government hospitals, is the main benefit of the HMI. This section presents an overview of the hospital facilities within each of these systems to provide a sense of the services offered and scale of service delivery. Within the study area, the government health-care system has two types of hospital facilities: Civil Hospitals (CHs) in each *tehsil* and District Headquarter Hospitals (DHQs) in the district capitals. The AKHSP program has Medical Centers (MCs) and Extended Family Health Centers (EFHCs). The military has the Combined Military Hospital (CMH) in Gilgit. Information about these hospital facilities was obtained from key informants in the hospitals and the communities and was augmented with data collected in eight FGDs.

#### **GOVERNMENT HEALTH-CARE SYSTEM**

### *Civil Hospitals*

The four CHs in Ghizar district are located in Singhal, Chatorkhand, Gupis and Yasin towns (also referred to as Taus by participants) where they serve the population of their respective *tehsil*. Generally, these hospitals provide care for minor illnesses and prescription medications. In some locations, X-rays and dental treatment are available. Officially these 10-bed facilities provide inpatient treatment, but unofficially there was little mention of overnight care at these facilities except at Gupis. The CHs are constrained by lack of staff and equipment. It is reported that they open late and close early, rarely have medications on hand and in some cases cannot admit patients due to lack of staff. One CH (Gupis), which was recently upgraded to 30 beds, participated in the hospital study research. The HMI insurance does not cover treatment at these hospitals.

### *DHQ Hospitals*

The Ghizar district's DHQ is a new 30-bed hospital in Gakuch. At the time of the research, the hospital had not yet started to admit inpatients due to a lack of staff; the hospital is well equipped but lacks technicians to operate the equipment. As with the CHs, Ghizar residents come here for minor illnesses. DHQ-Gakuch serves all of Ghizar district. The HMI will cover inpatient treatment at DHQ-Gakuch as soon as it offers that service.

The DHQ Gilgit is an important hospital in the Northern Areas. With 214 beds and 175 staff (AKAM data) this secondary hospital serves the entire Northern Areas. The hospital is staffed with a wide range of specialists and furnished with lab facilities, a pharmacy and sophisticated equipment that allows for a diverse range of services. DHQ delivers more babies than any other hospital in Gilgit.

Despite (or perhaps because of) the wide range of services and the large number of specialists, the DHQ is reported to be very overcrowded with long waits. The equipment is often not in use and lab results take a long time. The availability of doctors is limited by their short working hours. It is widely reported that medicines are never available at this hospital except for a few favored patients; all others must purchase medications elsewhere.

Government employees can be reimbursed for any charges levied for treatment that they receive at DHQ. HMI policyholders can use DHQ-Gilgit on a reimbursement basis. Across the board, the government hospitals are reported to be challenged by low availability of medications and staff. According to one key informant, the government hospitals are able to attract highly qualified doctors because they allow them to maintain private practices. The AKHSP and military health-care systems do not allow this.

## **MILITARY HEALTH-CARE SYSTEM**

### *Combined Military Hospital (CMH)*

The CMH is another large secondary hospital with more than 200 beds, a large number of specialists and a range of services. Generalists and specialists are said to be available 24 hours per day. Good quality medicines are reported to be available and the equipment is in good working order.

Military families come to CMH to access free medical treatment when they have serious conditions. The lab, pharmacy and nursing care are reported to be very good. Retired military personnel can access treatment at no charge but their families cannot. Civilians can access care on a fee-for-services basis although they can only be attended during certain hours. The CMH doctors are said to prioritize military patients. Nevertheless, CMH is generally less expensive than

the AKHSP Gilgit Medical Center. Treatment at CMH is covered by the HMI on a cashless basis.

*Fauji Foundation (Primary Care for Military Families)*

The Fauji Foundation Dispensary in Gupis provides primary care to active duty and retired military personnel and their families. This facility is used for minor illness, checkups and to obtain prescription medication. Care is otherwise limited; for example, there is no diagnostics lab. The check-ups and prescription drugs are free for active duty military. For retired personnel, check-ups are 10 PRs and drugs are free. Outreach services once per week were reported in at least one village about two hours distant from Gupis by car. Treatment at the Fauji Foundation is not covered by the HMI since it does not include inpatient care.

**AKHSP SYSTEM**

AKHSP has two fairly well-regarded hospitals in Ghizar, in addition to the Gilgit Medical Center, which is outside of the district. All AKHSP hospital facilities can be used on a cashless basis by HMI policyholders.

*Gupis Extended Family Health Center (EFFHC)*

This is a seven-bed facility in Gupis town with two medical officers, one of whom is female, on staff. It is considered the best facility in Gupis town, which has a number of health facilities. The EFHC is equipped with diagnostic facilities, an ultrasound, a well-stocked pharmacy and an ambulance. The hospital is used frequently for labor and delivery as the staff can handle specific kinds of complications (but not Cesarean sections) and there is no woman doctor at the nearby civil hospital. Doctors are available 24 hours per day; as a result the hospital handles many emergencies. Otherwise, local residents seek care at the EFHC for minor illnesses like cough and sore throat or pneumonia and diarrhea in children. They also seek care here in the initial stage of disease for referral elsewhere.

*Singhal Medical Center (SMC)*

Singhal MC is the best-equipped hospital in the Ghizar district. With 18 beds, it suffered from staff shortages until late 2008. Now, it is fully staffed with two medical officers (including one female officer) and two specialists (including a female specialist) in addition to LHVs, nurses and technicians. The hospital is equipped with ultrasound and EKG machines as well as an ambulance, lab and pharmacy. Patients seek treatment at Singhal for emergencies, deliveries, and minor and major surgery. Most importantly, the Singhal hospital is the only one in Ghizar district that can perform C-sections. Previously, patients had to go to Gilgit for C-sections. Participants reported that the population seeks care at SMC for kidney disease, appendicitis, pneumonia, malaria, typhoid, asthma and high blood pressure among other medical conditions.

*Gilgit Medical Center (GMC)*

The Gilgit Medical Center (GMC), a 20-bed secondary hospital facility, is the largest AKHSP hospital in the region. The GMC has 34 staff including a female medical officer and a female gynecologist. They also have a consultant general surgeon and an anesthesiologist on staff. The hospital serves all of the Northern Areas and provides the following services: medicine, surgery, obstetrics and gynecology, orthopedics and dentistry. Yet this range of services is narrower than those offered at DHQ-Gilgit or CMH-Gilgit. GMC has also suffered from staff shortages. In 2007 and part of 2008, the GMC had to share surgeons with SMC resulting in part-time capacity for surgery. By the time of this research, they were back to full time surgery.

GMC is reported to have a good lab and equipment but is considered less well equipped than CMH-Gilgit. The pharmacy is highly rated by FGD participants as it is reported to have high quality medications available most of the time. The drugs however are expensive. Patients do not have to wait long to see a doctor. Doctors can respond to emergencies, as they are available 24 hours per day.

**Table 10: Number of Beds and Staff and Annual Utilization Levels of AKHSP Hospitals in 2007**

	<i>Gilgit MC</i>	<i>Singhal MC</i>	<i>Gupis EFHC</i>
<i>Beds</i>	20	18	7
<i>Staff</i>	34	29	17
<i>No. of Admissions</i>	2,487	2,970	1,243
<i>No. of Births</i>	681	432	200
<i>No. of Outpatient Visits</i>	17,227	12,837	5,603
<i>No. of Major Surgeries</i>	419	55	0
<i>No. of Minor Surgeries</i>	479	571	547

In summary, the overall capacity of hospitals in the Ghizar district—beds and admissions—is quite limited, especially given the relatively large geographic area served by each facility. Although modestly staffed, every AKHSP hospital has at least one full-time female medical officer, which is culturally necessary for treatment of women’s conditions. The capabilities of the hospitals are also constrained by lack of expertise and equipment. These small facilities range in size from seven to 30 beds.

## HOSPITAL UTILIZATION AND PRICING

As part of the baseline research, the project team conducted on-site interviews with a medical officer and a health administrator at each of the five hospitals included in the study. They also reviewed data collected at each of these facilities and at the AKHSP regional office. The research found that most services are fully utilized at AKHSP and the sampled government hospitals. Family planning services, an exception, are reported sometimes to be underutilized. This may reflect availability of free services at MCHs, local NGOs, and government facilities, as well as cultural barriers to full utilization of family planning options. Full utilization of hospital service offerings has not assured cost recovery at AKHSP facilities.

Among the AKHSP hospitals, prices varied slightly. In 2008, the cost of a one-night stay in a general ward was 330 PRs (\$4.78 USD) at Gilgit MC, 220 PRs (\$ 3.19 USD) at Singhal MC, and 165 PRs (\$2.39 USD) at Gupis EFHC. The cost of an uncomplicated vaginal delivery was 1,265 PRs (\$18.33 USD), 1,100 PRs (\$ 15.94 USD) and 700 PRs (\$ 10.14 USD) at Gilgit, Singhal and Gupis respectively. The average cost of an admission ranged from 737 PRs (\$ 10.68 USD) at Gilgit to 2,220 PRs (\$ 32.17 USD) at Singhal hospital in the same year.



**Singhal Medical Center, Ghizar district**

**Table 11: Hospital Facilities Data, 2007-2008**

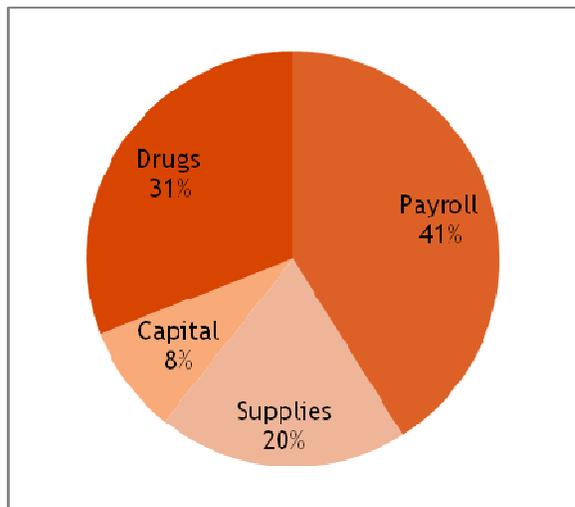
Facility	District	No. of Beds	No. of Staff	No. of Admissions	Price A	Price B	Average Price / Admission	Facility Budget	Bad Debt	Utilization & Cost Recovery Issues
					PRs USD\$	PRs USD\$	PRs USD\$	PRs '000 USD\$	PRs USD\$	
Gilgit Medical Center (AKHSP)	Gilgit	20	34	2,046	330 \$5.38	1,265 \$20.64	737 \$12.02	17,722 \$289,103	500,000 \$7,246	No services are underutilized. Problems are patients admitted for emergency who have prolonged stays. Also, prolonged geriatric, paralysis cases. Family planning services are underutilized.
Singhal Medical Center (AKHSP)	Ghizar	18	29	2,065	220 \$3.59	1,100 \$17.94	2,200 \$35.89	10,356 \$168,940	Yes, amount unknown	All services are utilized, all have cost recovery challenges.
Gupis Extended Family Health Center (AKHSP)	Ghizar	7	17	1,243	165 \$2.69	700 \$11.42	1,500 \$24.47	5,564 \$90,767	86,000 (2001-2008) \$1,251	Cardiac diagnostic and family planning services are underutilized.
Gupis Civil Hospital	Ghizar	30	22	130					All services free	Labor room services for deliveries are underutilized because of good services and availability of female staff at AKHSP Extended Family Health Center, Gupis.
Gakuch DHQ Hospital	Ghizar	30	36	Not available; first year of operation					All services free	Admission facility, surgical services and gynecological services are not available at this facility.

Key: Price A: one night -general ward. Price B: normal vaginal delivery -2 night stay. 2007 figures; all figures except bad debts converted to USD at rate of 61.3 PRs to \$1USD. Data Source: AKHSP 2008; Site visit interviews

To provide community residents with free-of-charge hospital services, hospital budgets for government facilities are developed at the District level and managed at the system level. As a result, most government medical and administrative officers were not aware of facility budgets or cost structures.

Key AKHSP informants indicated that all three of the sampled AKHSP hospitals have modest budgets and varied (but minor) levels of debt. Facility budget components include payroll, supplies including diagnostic and surgical materials and medications. The proportion of the budget each of these comprises for AKHSP hospitals are shown in Figure 6. The largest component, as expected, is staff payroll.

**Figure 6: AKHSP Hospital Budgets: Study Sample Aggregate, 2007**



In consultation with local health boards (LHBs), AKHSP management develops hospital budgets and pricing within the AKHSP network, which are then reviewed and revised annually. A senior official at Gilgit Medical Center (GMC) described the following process for setting prices:

- 1) Hospital officials confer with finance people and clinicians to review market prices, such as those set by the private physicians and other hospitals.
- 2) Administrators then set prices: treatment fees are set at a lower level than those offered by local private doctors. Pharmacy prices are based on the manufacturer's recommended retail price. Lab tests and radiology costs are calculated at unit cost.
- 3) After a thorough internal discussion of the prices, the price list is presented to the Local and Regional Health Boards for review and approval.

The health facility prices are reviewed and approved at all levels including the international headquarters, before becoming effective each January. The prices of hospital treatment will be reviewed from the patients' perspective in a later chapter.

To address the financial limitations of some patients, an AKHSP Remission Committee considers requests for discounted prices on an individual basis. Discounts are not available for drugs or lab tests. The budget for fee waivers throughout the entire Northern Areas was reported to total 2.5 million PRs (\$36,231.88 USD) in 2008. Aside from official discounts, one respondent at Gupis-EFHC reported that staff sometimes paid fees on behalf of "ultra poor" patients when fee waivers were not available. Key informants also stated that at AKHSP hospitals,

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Although government facilities are free to patients, they are known to be short staffed and are said to lack the surgical supplies and drugs needed for treatment. Many patients prefer to use the services at AKHSP hospitals, which are known in the area and are reputed to provide good quality care.

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staff and others can contribute to a charity box, the proceeds from which are used to pay for poor patients' care.

Key informants at the hospitals were asked which facilities they viewed as their competitors. This information indicates consumer preferences for hospital services. Competition among health-care providers in the local service areas is clear-cut. The government hospitals view AKHSP facilities as competitors and AKHSP hospitals reportedly compete with a broader spectrum of government, NGO and private facilities.

In sum, although government facilities are free, they are known to be short staffed and to lack the surgical supplies and drugs needed for treatment. Many patients prefer to use the services at AKHSP hospitals, which are known in the area and reputed to provide good quality care. AKHSP facilities are also highly revered by the local Ismailis who largely populate the area, due to their affiliation with the Ismaili leader, the Aga Khan. However, as will be discussed, many of these patients cannot afford AKHSP facilities.

### **MATERNAL AND CHILD HEALTH CENTERS**

AKHSP operates 15 Maternal and Child Health clinics (MCHs) throughout the four *tehsils* of the Ghizar district. One of these, located in the remote Faizabad, is not covered by the HMI. Although the other 14 MCHs are officially covered by the HMI, whether or not local residents have HMI coverage depends on several factors. As a result, there may be MCHs that are covered by insurance but located in an area where there are no policyholder households.

The AKHSP MCHs are small, standardized facilities that provide primary and secondary health care to their local communities (see Table 12). Each charges a small fee for medical services, supplemented by welfare assistance for those who cannot afford it. Most facilities have four staff that include two LHVs, but a few are staffed by one LHV and one Community Health Nurse (CHN). Each of the MCHs has two overnight beds, typically used for emergencies and women's health conditions.

The research team visited nine MCHs for this study. Within the catchment areas, residents have no access to the HMI at four of the MCHs; mixed access to the HMI at two of the MCHs and access to the HMI in the remaining three MCH areas. The baseline shows that the nine MCHs appear to have widely varying client bases. For example, the number of prenatal visits provided during 2008 varies from lows of 175 in Pingal (Gupis) and 188 in Imit (Ishkoman) to highs of 615 visits in Hunder (Yasin) and 702 in Chatorkhand (Ishkoman).

**Table 12: Maternal and Child Health Centers in Ghizar District, 2007-2008**

<i>Facility</i>	<i>Tehsil</i>	<i>No. of Beds</i>	<i>No. of Prenatal Visits</i>	<i>Facility Budget PRs '000 USD\$</i>	<i>Bad Debt* PRs '000 USD\$</i>	<i>Utilization &amp; Cost Recovery Issues</i>
Sherqila	Punial	2	470	625.11 \$10,198	0 \$0	Family planning services are underutilized; many prefer to receive free services at FPAP. All other services are fully utilized.
Gakuch	Punial	2	338	526.5 \$8,589	1,000 \$14.49	All services are utilized, none are underutilized.
Chatorkhand	Ishkoman	2	702	698.9 \$11,402	0 \$0	Family planning services are underutilized due to free services through government.
Imit	Ishkoman	2	188	536.9 \$8,759	2,000 \$28.99	Family planning services are underutilized due to charges. All other services are fully utilized.
Jhandrot	Gupis	2	259	525.7 \$8,576	3,000 \$43.48	All services are utilized, none are underutilized.
Yasin	Yasin	2	615	855.6 \$13,958	2,500 \$36.23	All services are utilized, none are underutilized.
Hunder	Yasin	2	456	682.6 \$11,136	2,500 \$36.23	All services are utilized, none are underutilized.
Sandi	Yasin	2	337	667.8 \$10,895	0 \$0	All services are utilized, none are underutilized.
Pingal	Gupis	2	175	353.31 \$5,764	0 \$0	All services are utilized, none are underutilized.

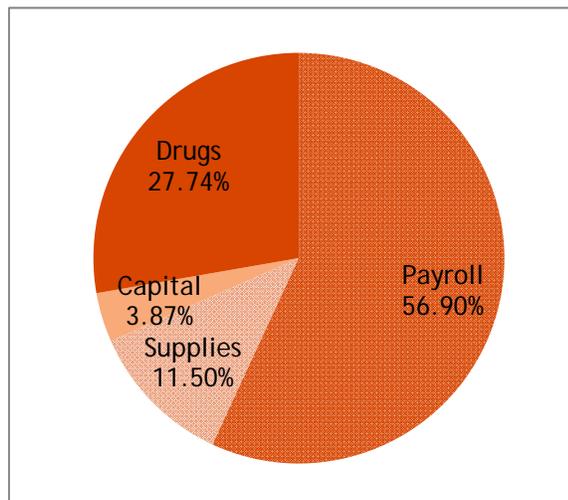
Source: AKHSP 2008; Site visit interviews; \*2007 figures; budget presented as Pakistani Rupees '000'. Facility budget amounts converted at rate of PRs 61.3 to \$1 USD to reflect 2007 prices.

Similarly, although all the MCHs are part of the AKHSP system, prices vary significantly from one to another. For example, an uncomplicated prenatal visit ranged from 30 PRs (\$ 0.48 USD) to 55 PRs (\$ 0.78 USD) and an uncomplicated vaginal delivery (two-day stay) ranged from 325 PRs (\$ 4.71 USD) to 560 PRs (\$ 9.42 USD). Note that this is significantly less expensive than the same procedure at an AKHSP medical center. For many, however, the HMI will render these variations moot as it covers all inpatient care. All of the MCHs list government facilities as competitors. Some facilities also named family planning centers associated with FPAP and other NGOs in their areas.

Pricing for MCHs services is established through a review and approval process similar for AKHSP hospitals. The LHB reviews and determines pricing in consultation with the Regional and Northern Areas Health Boards during annual price reviews. Discounts are not generally provided. One respondent from the Sherqila MCH had observed only one case that received a fee waiver during the preceding two years. Medicines are priced and sold at retail market prices, which are often costly for low-income patients.

Despite modest pricing at MCHs, cost recovery is sometimes an issue, albeit a minor one. Five of the nine MCHs in the study sample show some level of bad debt. As with the hospitals, not surprisingly, payroll accounts for the largest budgetary item at all MCHs, followed by drugs (see Figure 7). Prescription drugs frequently make up a high percentage of facility costs in developing countries and account for more than half of the payroll budget at four centers: Chatorkhand, Yasin, Hunder and Sandi. All services at the MCHs, with the exception of family planning, appear to be highly utilized. As reported for the hospitals, this may reflect the availability of free services at other local organizations, such as FPAP, or may reflect cultural and family barriers to family planning practices.

**Figure 7: MCH Facility Budget: Study Sample Aggregate, 2008**





**Sign Outside of Immit MCH, Ghizar District**

### **LOCAL HEALTH BOARDS**

Local Health Boards (LHBs), established at the community level by AKHSP, are comprised of community members who act as liaisons between their communities and AKHSP health-care providers. They were included in this research because they play an important facilitation role in linking the supply and demand for health care. They are responsible for community and preventive health services in the villages they serve. AKHSP works closely with the LHBs throughout the Northern Areas, including Ghizar and Gilgit districts where the HMI is being implemented. Most LHBs regularly coordinate health education, health screenings and vaccination activities in their communities. As noted previously, the LHBs also play a key role in setting prices for medicines and services at AKHSP facilities. The research team spoke to representatives of six LHBs and two Regional Health Boards in Ghizar district and one LHB in Gilgit town.

### **TOWARDS HEALTH-CARE PROVIDER OUTCOMES**

The health-care provider outcomes proposition is that the HMI insurance will have positive outcomes on covered health-care units. During the baseline research interviews were undertaken with staff of AKHSP health units and LHB representatives to explore stakeholders' expectations of the HMI with a focus on the opportunities and challenges arising from the HMI (See Table 12).

### **Potential Revenue Impacts**

Site visit respondents identified historical difficulties with cost recovery and bad debt at AKHSP health facilities, as well as other challenges to the financial sustainability of

private hospitals in the Ghizar and Gilgit districts. These difficulties are not surprising given the lack of financial resources in the remote, impoverished areas these hospitals serve. There is an expectation that with sufficient local enrollment, the HMI will help stabilize revenue for these facilities and sustain the availability of hospital care for local communities. And in fact, there is an indication that the pilot test of the HMI has had a positive effect on AKHSP hospital bad debts. One respondent at Gilgit Medical Center reported:

*“Bad debts are a problem. There is no good system at the hospital for recovery. They make a list of those unable to pay and share it with the Local Health Board. If a person does not pay, Local Health Board members go to [him] and assure the recovery. Before introduction of the insurance scheme [in 2007] this [bad debt] amount was very huge, soon after implementation of health insurance program this amount has much reduced.”*

### **HMI Opportunities and Challenges**

Respondents expected an overall increase in utilization of services and a shift for some patients from free care at government facilities to AKHSP hospitals. Some respondents expressed concerns about this expected increased patient flow and the capability of staff, administration and management to respond (See Table 13). As the Senior Medical Officer at GMC put it:

*“Gilgit Medical Center can handle the number of insured that they have now, but if they increase any more they will have a hard time accommodating more, particularly in terms of record keeping and medical care. Last year (2007) bed occupancy increased to 65 percent. This year, it has increased to 80 percent. If it goes up 20 percent more they are okay, but if it goes beyond that they will have to increase the number of beds. Right now, out of 20 inpatients, 12 to 13 are HMI insured. They have a capacity problem in terms of human resources and their building.”*

But he also believed that an increase in demand may lead to improvements. For example:

*“The positive expectations are that the hospital can get a pediatrician. The hospital is also planning to hire a second consultant gynecologist in January 2009. The share of ob/gyn patients is 40 percent of the total outpatient load. Therefore it is hard for a single gynecologist to handle this. They have to address the infrastructure problem too. There is no waiting room. They have a proposal to build a new operating room, labor room, waiting room and medical records room for 600,000 PRs (\$8,695.65 USD). They are hoping for support from AKHSP in Karachi.” (Senior Medical Officer, Gilgit Medical Center)*

FMiA is aware of the concerns about hospital capacity according to its supervisor in the Northern Areas. This physician looks positively to the participation of the state-of-the-art 200-bed Combined Military Hospital (CMH-Gilgit) in the region to help absorb additional patient volume that may arise at AKHSP facilities. The new facility joined the HMI network in November 2008.

Like the hospital respondents, those at the MCHs also recognized the likelihood of increased workloads for staff and added strain on existing capacity associated with expected increases in patient volumes (See Table 12). One respondent expressed concern about wasted resources as insured patients who do not need treatment present for hospital care. However, as with the hospital respondents, most were optimistic about the HMI product, its impact and outcomes for insured patients.

Most LHB respondents recognized the potential of the HMI product to improve outcomes for insured patients (See Table 12).

**Table 13: Summary of Stakeholders' Expectations of HMI, November 2008**

<i>Opportunities</i>	<i>Challenges</i>
<ul style="list-style-type: none"> <li>Improved access for patients reluctant to come due to cost, especially the poor</li> <li>Improved consumer health and wellness/ Control over morbidity and mortality</li> <li>Consumers will seek care earlier</li> <li>Better facilities, services and education with new resources for patient treatment</li> <li>Improved cost recovery for hospitals, leading to improvements in services</li> <li>Sustainability of AKHSP facilities will be ensured due to increased patient flow and payments</li> <li>Debt levels will decrease</li> </ul>	<ul style="list-style-type: none"> <li>Center and staff will be overburdened as patient numbers increase. More staff and space needed</li> <li>Difficulties maintaining quality services due to increased patient flow</li> <li>Inappropriate patient demands for treatment</li> <li>HMI cards are not issued on time</li> <li>Management and administrative issues as the number of insured lives increases</li> </ul>

HMI impacts on provider capacity were frequently raised as questions by study respondents: whether and how providers can accommodate potential patient increases related to the HMI, especially as some respondents have already noted these trends at AKHSP hospitals. How these volume increases affect change at the covered facilities remains to be seen. Will there be increased revenues that prompt staff and service expansion? Or will facilities become overcrowded and stressed by the higher demand?

In service areas where patient access and volume increase as a direct result of the HMI, hospitals and to a lesser extent MCHs, may see reductions in bad debt and new financial viability and sustainability. In theory, increasing revenues are expected to result in positive impacts, such as increased investment in staff, equipment and/or facilities, which in turn result in increased quality of care. Better quality care is expected to lead to increased demand for medical care.

Indirect spillover effects may also result from the implementation of the HMI. Introducing administrative improvements and upgrading staff skills in the areas of patient enrollment, monitoring and tracking to meet the needs of the HMI is one potential impact. The HMI may also influence change in local treatment and referral practices and an increase in attention to utilization and clinical management to reflect HMI requirements and others. As a result, the uninsured will also receive better quality care at participating hospitals.

An alternative to spillover is that providers with low HMI volumes may elect to ignore the administrative and claims requirements of the policy. Providers could also establish dual tracks for patient management and care. Because most of the covered facilities are part of AKHSP network, a sister agency to FMiA, it may be possible to assist providers in shaping their responses moving forward. Providing a channel for

their input can help FMiA stay abreast of changing practices and make adjustments where needed.

## SUMMARY

This section examined the health-care landscape by focusing on the range of facilities available throughout the Ghizar district. It shows that for the government and military health-care systems, inpatient hospital services are effectively limited to Gilgit town. In contrast, the AKHSP system offers effective inpatient treatment across Ghizar district. This includes some limited inpatient facilities in their MCHs, more advanced services at Gupis-EFHC and a full range of services in the Singhal Medical Center. The relative merits of the different health-care systems have implications for the demand for HMI.

The small size and high utilization levels at the AKHSP hospitals raises questions about the capacity of the AKHSP hospitals to meet the higher demand expected from HMI policyholders. A key question going forward is whether the AKHSP hospitals can respond to higher demand by investing in new beds, new staff or other quality or capacity improvements. If the AKHSP system cannot handle the new patient load, patients will most likely seek treatment at the Combined Military Hospital or the District Headquarters hospital in Gilgit. The readiness and capacity of the AKHSP facilities to handle more patients has implications for both the outcomes at the AKHSP hospitals versus the government and military hospitals and the health-seeking behavior of residents. The HMI may benefit the AKHSP health-care system if it can help stabilize their finances and lead to service improvements. Alternately, staff at AKHSP could become overburdened and the quality of care might deteriorate. It is likely that the CMH will be an attractive option for policyholders as they can obtain inpatient treatment on a cashless basis. To the extent that policyholders use the government hospital more than the AKHSP or CMH hospitals, there will be a higher level of reimbursement claims from policyholders, with implications for the administrative function of FMiA, and possibly customer satisfaction with the HMI. These questions should be explored in future studies.

The strength of the AKHSP system appears to lie in the MCH system, with its widespread presence in the community and focus on maternal and child care, areas that are neglected by the government health-care system in the Ghizar district. Additionally, AKHSP provides quality inpatient treatment in Ghizar through the Singhal MC. However, the need for discount pricing for some patients clearly indicates that segments of the population has difficulty affording these services. The competitive advantages of both the government and military health-care systems lie in their hospitals, which have a range of medical specialists who can treat a wide array of medical conditions. The government system has the added advantage of providing care free of charge while the CMH can be accessed on a cashless basis with the HMI.

The insurance would appear to be more attractive to families that anticipate the need for maternal and child care or inpatient needs that can be treated within Ghizar district. For families that prefer to seek treatment at DHQ-Gilgit, the advantages of purchasing the HMI are unclear. To obtain a better understanding of existing client preferences, the following chapter examines consumer health-seeking behavior in Ghizar district and then examines the underlying factors that motivate this behavior, including consumer perceptions of the health-care landscape and the costs of care.

# VI. Ghizar Population’s Health-Seeking Behavior

## INTRODUCTION

The preceding section detailed the existing health-care landscape. Questions remain, however, where and why the population of Ghizar seeks medical attention for various ailments. Investigating these questions is fundamental to understanding the potential importance of the HMI in facilitating patient access to timely, quality health care. In addition, the data and analysis presented here will provide a basis for examining any changes in patients’ health-seeking behavior following the introduction of the HMI. To accomplish this, this report examines both the local population’s current health-seeking behavior and their preferences in health-care providers.

First, this chapter presents the findings on health-seeking behaviors generally and then more specifically by different demographic characteristics. Second, this chapter explores people’s preferences for the three main health-care systems through an assessment of the attributes participants’ value most when choosing a health-care provider. The purpose is to understand the underlying motivations of consumer preferences and the observed health-seeking behaviors. Finally, this chapter examines the cost of health care as a specific and major driver of health-seeking behavior. The evidence implies that health-care costs in Ghizar can be substantial and that the HMI will only cover a portion of the total costs related to hospital care. This suggests that the value proposition of the HMI may be higher for families who have higher direct costs of hospital care relative to total costs.

## HEALTH-SEEKING BEHAVIOR

Health-seeking behavior refers to the personal actions that people take to protect or reestablish their health. It is believed to depend on many factors including “socio-demographic factors, social structures, level of education, cultural beliefs and practices, gender discrimination, status of women, economic and political systems, environmental conditions, and the disease pattern and health-care system itself” (Shaik, 2004, p. 49). It is beyond the scope of this study to take an in-depth look at all the factors involved in the health-seeking behaviors of the Ghizar population. However, the findings of this research point to some of the main drivers behind health-seeking behaviors. Both *push factors* (factors inherent to the consumer side) and *pull factors* (attributes of the health-care providers) determine the health-seeking behaviors of local residents. The most salient push factors include the patient’s medical condition and demographic characteristics, such as location of residence, income level, gender, age and religious affiliation. Pull factors include the price, quality and availability of health-care services. Health-seeking behavior of the Ghizar population was probed through eight FGDs and key informant interviews with health-care providers and other stakeholders.

### Health-care Sequencing

Before we examine the determinants of health-seeking behavior individually, it is important to note that there is a general pattern to health-seeking behavior among the local population. There are several sequential steps that patients take in response to feeling unwell.

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As a first step when ill, patients usually try to treat the problem themselves either with homeopathic home remedies or medications purchased from drug stores or government dispensaries.

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## **BOX 2**

In Sherqila, there are three medical stores run by pharmacists who are retired from government health facilities. They examine patients and provide the appropriate medicine. In addition to helping with diagnoses, they may even tell customers whether they should go to Singhal or Gilgit for care if the problem is more serious. Similarly, a group in Taus indicated that pharmacists can diagnose some problems easily without machines simply based on symptoms and patient history. People appreciate this because "these people save money for villagers because they do not have to go to Gupis or Singhal." One FGD even referred to the pharmacist at a government dispensary as "the doctor". They said "*the doctor is available there for checkups.*" Treatment is free and so it is popular in the village among the poor, who go there first.

### **SELF-MEDICATION**

As a first step when ill, patients usually try to treat the problem themselves with homeopathic home remedies or medications purchased from drug stores or government dispensaries. In some cases, people are aided in their self-diagnoses by the pharmacists at government dispensaries or medical stores.

### **TRADITIONAL HEALERS**

Patients may also consult traditional healers in their community for remedies. For example, traditional healers are preferred for bone setting in one community. In another community, people seek relief from acupuncturists.

### **LOCAL PRIMARY CARE**

If self medication or traditional methods are unsuccessful, patients seek care at the nearest available health-care facility. In Ghizar district, these are usually government CHs or AKHSP MCHs. The 15 AKHSP MCHs are located in many villages throughout Ghizar district, while the four CHs are more geographically dispersed. As one stakeholder noted, "These MCH centers often offer the only locally available health care." Yet, although the MCHs are easier to reach, they are more expensive to use than the government facilities. In selected locations, the Fauji Foundation may be available to military families. There is evidence that people delay seeking this level of care due to the expense involved, although the research could not reveal how long people wait.

### **INPATIENT TREATMENT**

For patients requiring critical care or surgeries, the nearest available health-care provider is usually insufficient and they must go to a facility that accepts inpatients or one with a surgeon. In Ghizar, only the AKHSP EFHC and the CH, both in Gupis, and the Singhal MC offer inpatient treatment. Of these, only Singhal offers any kind of surgery and is the only facility in Ghizar district that can perform C-sections.

### **SPECIALIZED CARE**

If patients cannot be successfully treated within Ghizar district, they are usually referred to Gilgit as explained by this focus group participant: "We are referred there, in case of heart or kidney problems, hepatitis B or other specialized conditions." In Gilgit, patients have a choice of three hospitals operated by each of the main health-care systems. For specialized conditions such as heart problems, people can consult physicians in private clinics.

### **TREATMENT OUTSIDE OF THE NORTHERN AREAS**

While the available diagnosis facilities and treatments in Gilgit town are superior to those in Ghizar, they are still limited. For example, there are no CT scan or heart surgery facilities in Gilgit. In fact, the Northern Areas has no tertiary hospital. For ailments such as cancer or coronary disease that require surgery, patients must seek care outside of the Northern Areas. Patients at Gilgit Medical Center may be referred to the Aga Khan University hospital (AKU) for treatment. Although the cost of this facility is extremely high for most people, especially with added costs of transportation to Karachi and attendant facilities, these are somewhat offset by the possibility of having medical expenses covered by the Aga Khan Social Welfare program. It was reported that those who are considered rich in Ghizar do still qualify for this financial aid at AKU. As in other cases, military personnel prefer to stay within the military health-care system. When a problem is serious, they first go to

CMH-Gilgit, but may be referred to CMH-Rawalpindi if they cannot be cured in Gilgit. Aside from these two hospitals, key informants also mentioned that northerners seek care at Shifa International in Islamabad. For patients with specific diseases and conditions, appropriate treatment can only be obtained in Islamabad or Karachi.

### **Variations in Health-Seeking Behavior by Socioeconomic Groups**

There are variations to this overall behavior pattern, based on socio-demographic characteristics and the medical condition of the patient. Below, we review the observed health-seeking behaviors as they vary by income level, occupation, age, gender, religious affiliation, location of residence and medical condition.

#### **INCOME LEVEL**

The rich or well-to-do do not delay in seeking care. They may skip the self-medication stage and proceed directly to a health-care provider. As cost is less of an obstacle to them, the rich in Ghizar district, in general, seek care at fee-for-service AKHSP facilities. The middle class start with self-medication but if they are not successful, they turn to the closest available health-care facility whether it be AKHSP or government run.

One group indicated that the MCHs are very attractive because they are close and provide 24 hour services.

*“We can go at night for any problems whereas before the center opened we had to go to Gupis and there was no transport available at night. This AKHSP MCH center is very accessible because it is in the village so we can go on foot, which only takes 30 minutes at most.”*

While the cost is very high, many in these communities use the AKHSP facilities because the medicines are thought to be more effective and of better quality than those available in government facilities.

The poor will continue treatment at home for longer than the other two groups. For the early stages of minor illnesses, those with very limited resources almost always use government facilities. As one group explained, “the poor use these because they are free and close by.” Although the doctors are often not very good or unavailable, people get free prescriptions and if there is a civil hospital close to their community, patients can go there on foot.

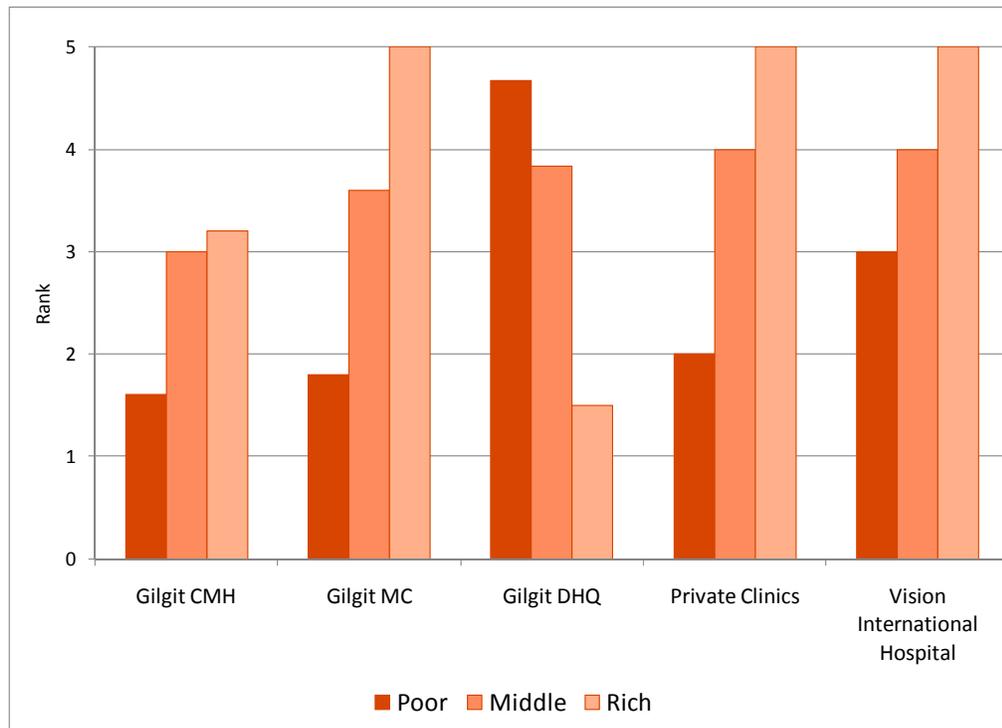
Figures 8, 9 and 10 depict where various socioeconomic groups seek health care. Clear differences in the health care systems used by these groups are apparent. The rich have a strong preference for the AKHSP system, especially hospitals. They also use private clinics and hospitals such as Vision International. The middle income group has the most diverse usage patterns. Close to home they prefer AKHSP MCHs but in Gilgit they are more likely to use government hospitals. In contrast, the poor have a strong preference for government facilities as well as traditional and religious healers. These patterns of health-seeking behavior are stronger for people living farther from the major hospitals (see 9).

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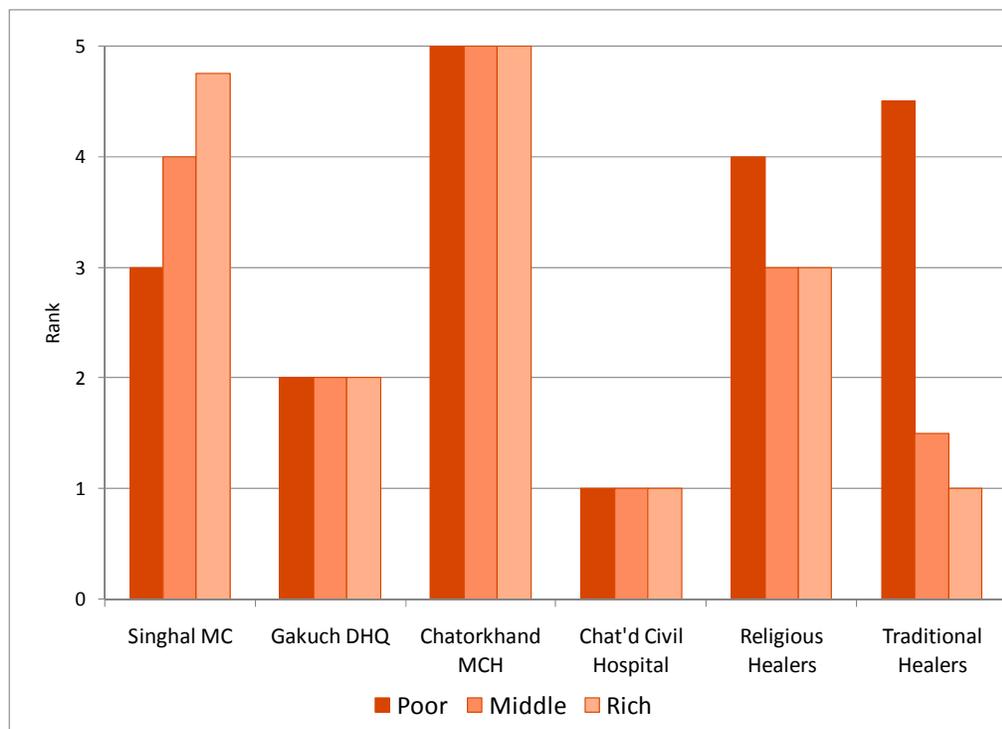
The rich have a strong preference for the AKHSP system, especially the hospitals. In contrast, the poor have a strong preference for government health facilities. The middle income group has the most diverse healthcare usage patterns.

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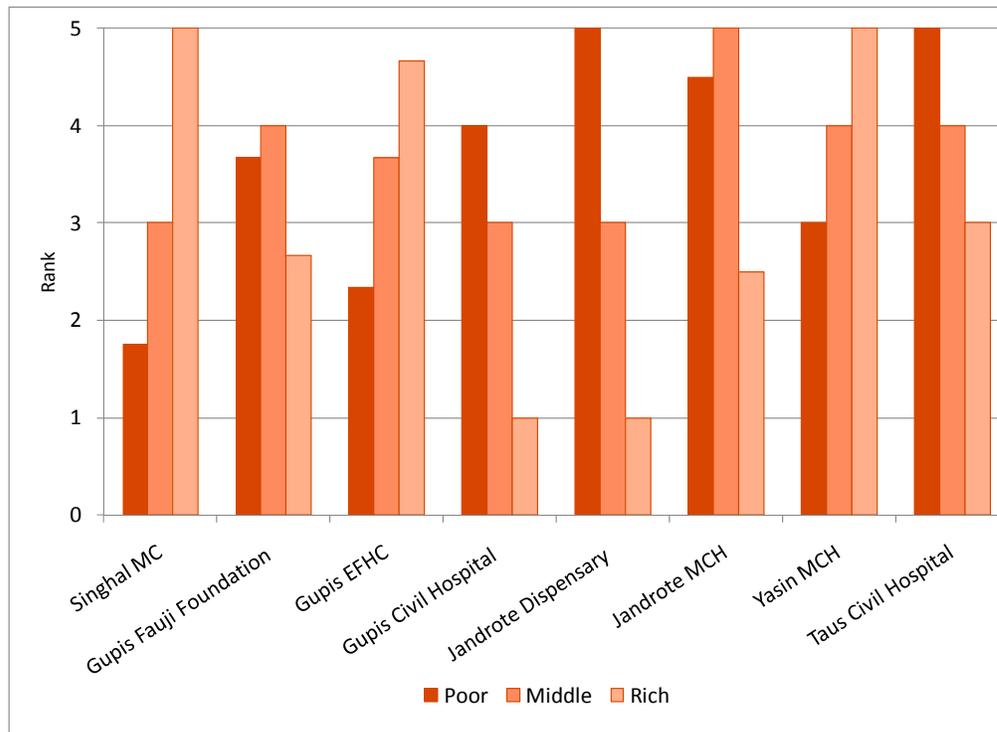
**Figure 8: Hospital Preferences by Wealth Level**



**Figure 9: Health Facility Preferences by Wealth Level in “Near” Areas**



**Figure 10: Health Facility Preferences by Wealth Level in “Far” Areas**



**MILITARY FAMILIES**

Retired and active duty military personnel and their families follow health-seeking patterns similar to the general population, but frequent Fauji Foundation clinics or the CMH-Gilgit hospital. Although they must pay for the services, some civilians also use these providers. As the Fauji Foundation clinic is the only available facility in Ghizar, military families may use other health-care systems that are closer to their homes, such as AKHSP, in cases of emergency or child birth.

**GENDER**

Women have a strong preference for using the AKHSP facilities, particularly the MCHs. Even if a household cannot afford to send everyone to their local MCH, they generally seek treatment at these facilities for women and children. These are usually the only locally available facilities that have female medical practitioners on staff (LHVs) and offer maternity care. As one group explained, their local MCH has an expert LHV on staff: “Because of her, no woman has died in childbirth since it opened in 1995.” In addition, as another participant explained, “If a baby is born at an AKHSP-MCH [the facility is] automatically responsible for providing the vaccinations free-of-charge.” Additionally, women can often travel to MCHs alone if they are not too far away. In contrast, men, especially the poor, tend to seek treatment at government facilities to save money. Says one FGD participant in the Gupis area:

Women have a strong preference for using the AKHSP facilities, particularly the MCHs.

*“For women’s related issues people always try to stay in the AKHSP system because there are more women staff available and greater privacy. However, for men if Singhal Medical Center refers someone to Gilgit, he will go to DHQ instead of GMC because there are more male staff and they do not mind the lack of privacy....men’s health problems can be resolved at DHQ. In*

*addition, they feel that men are healthier than women in general. Women and children are the two main health burdens because they get sick often.”*

Furthermore, one participant explained, “[women] are more cautious about their health than [their] money” implying that women are willing to spend more money to ensure their health. Poor women seek care at private AKHSP facilities more readily than men who might go to an AKHSP facility only if and when their ailments are not treated within the government system.

#### AGE

A few participants reported that in their communities the elderly prefer self-medication and also tend to seek care at the CHs due to the free medications compared to other age groups.

#### RELIGIOUS AFFILIATION

There is a clear preference among Ismailis, the largest religious group in Ghizar, for AKHSP facilities. This preference was stronger in some locations than others but was found throughout Ghizar. As one MCH respondent put it:

*All people living here are Ismailis and they take the decision to choose a clinic religiously. There is no other health facility. They come here because we deliver quality care services and we are available round the clock.*

#### LOCATION OF RESIDENCE

Participants in the FGDs noted that the vast majority of people seek care that is as close to home as possible given their medical needs. Only the rich have the resources to seek early care farther away from home. The question of location, like that of health-seeking behavior as a whole, is complicated. The location of the patient in relation to the health-care facilities has several aspects. Distances within Ghizar and between Ghizar and Gilgit town are vast. The perceptions of distance are even greater than the actual distances because in a number of valleys, good paved roads have only been introduced within the past four to five years. In other locations, roads are still unpaved. The cost and time involved in travel are high, especially in relation to household incomes. In addition, the cost of health-care facilities rises as the level and quality of health care improves. The quality of care increases fairly consistently moving from the outer edges of Ghizar district into Gilgit town. As a result, for residents of distant villages, the cost of obtaining health care accelerates as they move further from home. Thus people prefer to stay as close to home as possible. This will be analyzed in more detail below.

#### MEDICAL CONDITIONS

*Births:* Historically, Pakistan reported a high percentage of home births, many of which were attended by female birth attendants. Recently, more deliveries have been conducted at MCHs and hospitals, especially in Ghizar and Gilgit districts. Preferences for these facilities tend to reflect both local availability of providers and patient resources, but there is a clear preference for delivering at AKHSP facilities. MCHs are well equipped to provide prenatal care and have LHVs to assist deliveries. Better-off patients often give birth at AKHSP hospitals. Complicated births are referred to hospitals as needed. For example, participants noted that deliveries that require stitches are referred to Gupis EFHC while Singhal MC is the only hospital in Ghizar that can perform C-sections. Lack of staff, especially female health workers at government hospitals, discourages many women who might benefit from the free services from delivering there.

*Emergencies:* For emergencies, there is a strong preference among the Ghizar population for AKHSP facilities. Government providers are less prepared for emergency situations. For example, doctors are not available on a 24-hour basis, and many of these facilities close by 1 or 2 pm. In addition, they often do not have the appropriate and necessary supplies on hand, especially in smaller dispensaries. One participant told a story that illustrates this problem.

*“When my son was 7 he fell down and injured his head so I brought him to the government dispensary. The person working there said that if I gave him a cloth he would apply it as a bandage. So I tore my shawl for this purpose.”*

In Gilgit, the GMC is the only reliable facility in case of emergency.

In the section above, we have shown that health-seeking behavior varies by socio demographic characteristics including income level, gender, age and occupation, among other things. Health-seeking behavior is also influenced by the supply of health-care services. In the next section, we will review the pull factors—patient preferences for the features of health-care systems—that affect health-seeking behavior.

## CONSUMER PREFERENCES FOR HEALTH-CARE FACILITIES

The supply side factors that shape health-seeking behavior include the structure of the health-care systems (which were reviewed in the last chapter) and the features of specific facilities. To better understand how and why the features of the health-care systems and individual facilities affect health-seeking behavior, we asked participants in eight FGDs to identify and rank the main features of health-care providers that residents take into account when considering where to seek care. As Figure 11 demonstrates, the three top ranked attributes relate to the quality of care (doctors, hygiene, medicines), the fourth concerns affordability (cost) and the fifth is physical access (distance), which is also related to cost.

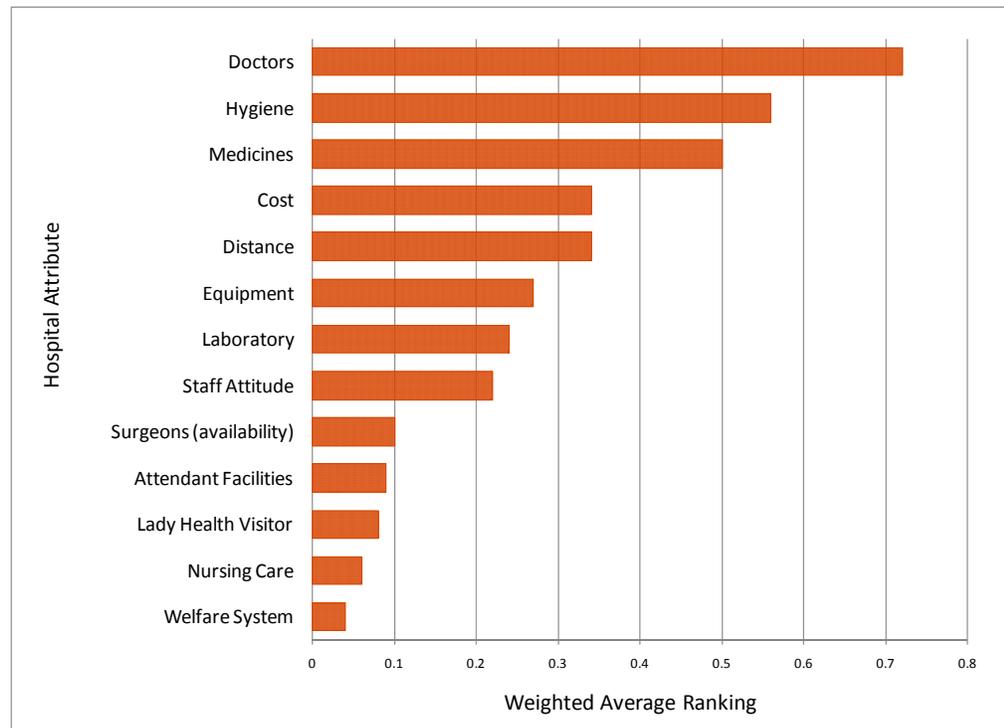
The FGD participants were also asked to rate the health-care facilities they frequent most, based on the top five features listed above using a scale of 1 to 5, with 5 being the highest possible ranking. Figure 12 depicts the rankings of the top five attributes of selected health-care facilities. To simplify the analysis, the figure is constructed to depict the health-care choices for residents living in an area extending from Jandrote in Gupis *tehsil* to Gilgit town. Thus while all hospitals covered by the HMI are represented, not all available MCH facilities or CHs are shown in the figure. The facilities in this diagram are grouped by health-care system.

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The top 5 attributes that residents take into consideration when deciding where to seek health care are: doctors, hygiene, medicines, cost and physical access.

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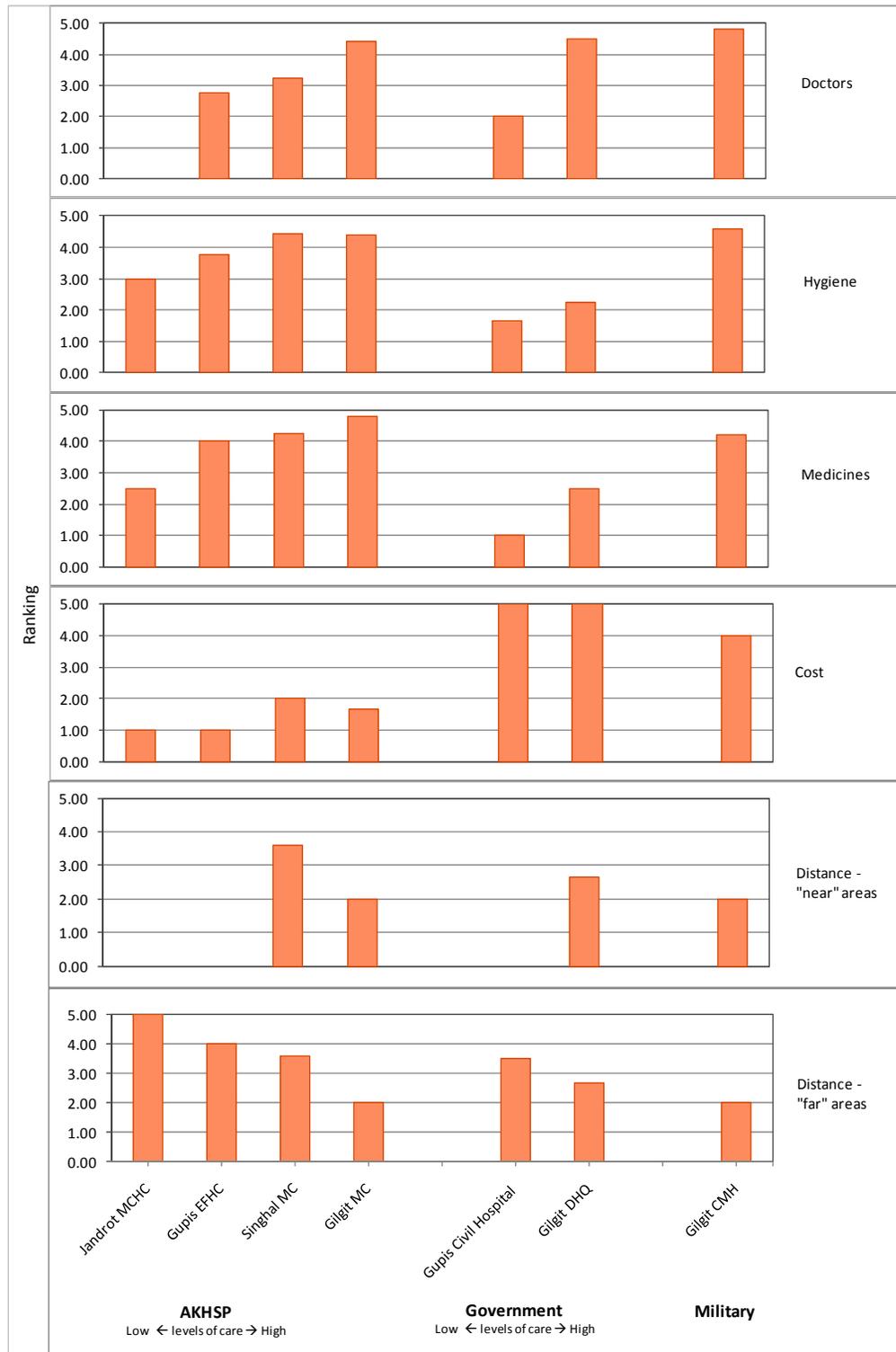
**Figure 11: Rank Order of Key Hospital Attributes**



Note: Attendant Facilities refers to the services available for family members who take care of the patient while they are hospitalized.

Three overall patterns are shown in Figure 12. First, hospitals in Gilgit were rated the highest in terms of the quality of care indicators, and the ratings for facilities in Ghizar increase as the proximity to Gilgit increases. This reflects the increasing sophistication of facilities in locations closer to the regional capital. The exception to this overall pattern is the DHQ hospital in Gilgit, which was rated poorly for hygiene and medication availability. The second pattern observed is that the AKHSP hospitals rank higher than the equivalent government facilities for all three quality of care indicators, with the exception of doctors in Gilgit. The government system is only preferred to the AKHSP in terms of cost. The third pattern shows that the military health-care system rates higher or equal to the AKHSP system for all indicators including quality, cost and distance. This raises the possibility that the HMI may lead to more demand for the military-run CMH-Gilgit than for the AKHSP Gilgit Medical Center.

**Figure 12: Hospital Attribute Rankings**



**BOX 3*****Key to Hospital Attributes in Figure 10***

- Doctors refers to the range of expertise available and their relative competence. Of equal concern was the availability of women health-care providers.
- Hygiene is about level of cleanliness throughout the health-care facility, especially in patient rooms and bathrooms.
- Medications involve two issues: availability and quality.
- Cost refers to the direct cost of accessing care and the cost of obtaining prescription medications. It was anticipated to be the most important factor given participants' generally low income status and the fact that participants reported that the main reason for not purchasing the HMI was the cost of the premium.
- To minimize the overall cost of health care, families try to resolve health problems as close to home as possible. If treatment is not possible locally they must seek help further afield. Distance is, therefore, a critical factor when an ailment is serious.
- Equipment refers to whether a facility has a working X-ray, ultra-sound, EKG and other diagnostic tools as well as the staff to operate it. Similarly, the availability of a laboratory is important for diagnoses.
- Staff attitude has to do with their general friendliness and professionalism in doing their jobs.
- Surgeons were identified as a separate attribute because participants were concerned about the availability of this specific type of expertise.
- Attendant facilities are an additional service that most health care providers offer to at least some extent. Its importance reflects cultural traditions in which family members take care of each other when hospitalized because local hospitals often lack the capacity to feed and sufficiently care for patients.
- The presence of Lady Health Visitors (LHVs), non-professional medical staff, makes facilities more attractive to women.
- Nursing care refers to the availability of and quality of care provided by these professionals.
- A social welfare system to help cover the cost of care for those who cannot afford it is especially important within the AKSHP system because this is an expensive fee-for-service system.

***Specialist availability***

A deeper look at each of the indicators shown in Figure 12 provides insight into consumer motivations behind health-seeking behavior. Hospitals were more highly rated the more specialists on staff and the greater the participants' comfort with these physicians' capabilities. Hospital ratings, however, also took into account the availability of doctors. FGD participants reported that doctors are not always available at government hospitals. In Ghizar district, the hours of operation of government hospitals are short; they are reported to close in the early afternoon. In Gilgit, doctors tend to work for the government in the mornings and in their private clinics (where they earn more) in the afternoons. In contrast, AKHSP doctors are required to work full-time at the hospital and are therefore regularly available in addition to being on call in case of an emergency. As a result, AKHSP facilities and those in Gilgit scored highest on doctors in the rankings.

**HYGIENE**

According to participants, government facilities are significantly less hygienic than AKHSP facilities. (Unsurprisingly, cleanliness is reported to improve as the overall level of health care provided increases.)

#### AVAILABILITY OF MEDICATION

Government facilities receive poor marks for both the quantity and quality of medications on hand. Government facilities often do not have medicines in stock and when they do, they can only provide the most basic of medicines such as Paracetamol, Disprine (aspirin), and Oral Rehydration Solution (ORS). Amongst government facilities dispensaries appear to be the least well supplied whereas DHQ-Gilgit has the most medicines. As one participant put it "*[I]n our village there is one dispensary, but most of the time [they are out of stock], so to go there is useless.*" In contrast, most, if not all, AKHSP facilities apparently have medications on hand all the time. In terms of quality, participants believe that government providers tend to offer inferior and ineffective drugs. They are either expired, not from reputable manufacturers or fake. In contrast, as one group explained, "*The AKHSP network has quality, original, and effective medicines available all the time.*" Earlier research found that people have a bias toward "multinational" drugs and distrust those manufactured in Pakistan, such as generics. (In the case of legitimate generics this bias is unfounded.)

The difference that distance makes is evident in the rankings that groups that live "far" (Yasin and Gupis) from and "near" (Punial and Ishkoman) to Singhal and Gilgit gave the facilities in these locations. These rankings clearly indicate that those who live near to Gilgit and Singhal have greater practical access to these health-care facilities. Interestingly CMH earned the same ranking (2.00) from groups in both locations. This reflects its location within Gilgit, which is in an area difficult to reach by public transport.

Hospital rankings for the other eight attributes are fairly similar to those for the top five. Among the three main health-care systems, participants perceived the AKHSP system as providing better quality of care. Within each of the three systems, all hospitals in Gilgit were identified as offering better services.

As indicated in the previous chapter, these findings are supported by evidence from stakeholders, including LHB members and others. These informants indicate that people generally do not like government facilities because they do not care for people well. Therefore, it is mainly the poor, who absolutely cannot afford the AKHSP system, who use government facilities.

#### COST OF CARE

While AKHSP facilities tend to rank higher on all aspects of quality care, the reverse is true for cost. AKHSP only offers fee-for-service care. Thus, when cost is the only consideration, consumers prefer government hospitals. Although government facilities are ostensibly free, patients often must purchase medications and other supplies from medical shops because they are not available at the hospital. The military hospital is free for military personnel and their families, but charges a fee for service for civilians. When directly compared to AKHSP however, the treatment costs for civilians at CMH are less than the costs of receiving similar treatment at AKHSP Gilgit Medical Center. The cost of accessing health care is examined in more detail below.

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While AKHSP facilities tend to rank higher on all aspects of quality of care, the reverse is true for cost.

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#### HEALTH-CARE COSTS

The cost of health care as a determinant of health-seeking behavior merits a more detailed discussion, as it is the foremost important aspect of the health-seeking experience that the HMI will change. What does health care actually cost for the Ghizar population? The research found that costs related to health care include both direct costs (consultation, laboratory fees for diagnosis, treatment and medication) and indirect costs (transportation and attendant support). Policyholder health-seeking behavior is assumed to change to the extent that the HMI can lower their

total costs of medical care at hospitals and MCHs. To fully assess the value proposition of the HMI it is important to understand the proportion of total costs related to hospital care that the policy would cover.

To accomplish this, eight FGDs examined the direct and indirect costs of accessing health care.

Health care cost estimates are based on participants' perceptions, which are based on personal experience with the different systems and what participants hear from others. The results are particularly interesting because they reflect the assumption that influence participants' health-seeking behavior and their decision making about purchasing the insurance. While the range of costs included here cannot be taken as exact averages of the actual costs of care at various facilities, they should be representative of the magnitude of differences in cost for people living in different parts of Ghizar district and among various providers.

### **Direct Costs of Health Care**

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*“At AKHSP they first give life inside the ward, but then they take it away outside at the accounts office.”*

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Direct costs for care, as reported by participants, vary considerably among providers among and within the three main health-care systems (See Table 14). Although total direct costs depend on the diagnosis, treatment and severity of the illness, what is clearly evident and of critical importance is the variation in costs across the systems. AKHSP and military facilities are considerably more expensive than government ones. As one FGD participant in Sherqila put it: *“At AKHSP they first give life inside the ward, but then they take it away outside at the accounts office.”*

While the military system is obviously also much less expensive for military personnel, it is only slightly less expensive than the AKHSP system for civilians. However, stakeholders report that consumers without resources are not turned away from AKHSP health-care providers. One respondent explained that emergency cases are typically treated and stabilized, and later moved to a government facility. All respondents emphasized that AKHSP hospitals do not provide free care. However, in the event a patient cannot afford to pay, staff will assist them in applying to charitable organizations, such as the Aga Khan Social Welfare Board in Gilgit, which is associated with the Jamaat Khanas, or the government-run Zakat and Bait-ul-Mal for aid. Table 14 also shows that the government system is not completely free of charge when drugs or supplies are not available and must be purchased from shops. The range of costs shown for government health providers reflects such expenses.

**Table 14: Range of Health Care Costs Reported by Participants, by Health-Care System**

<i>Facility type</i>	<i>Facility</i>	<i>Cost Range PRs (USD)</i>
Government	Dispensaries	0-300 PRs (\$0-4.35)
	Civil Hospitals	200-500 PRs (\$3.00-7.25)
	DHQ-Gilgit	500-1,450 PRs (\$ 3.00-21.00)
AKHSP	MCHs	150-500 PRs (\$ 2.20-7.25)
	Gupis-EFHC	500-2,000 PRs (\$ 7.25-29.00)
	SMC	1,000-2,000 PRs (\$ 14.50-29.00)
	GMC	1,400-4,000 PRs (\$ 20.30-58.00)
Military	Fauji Foundation	Active Military: 0 PRs (\$ 0.00) Retired Military: 10 PRs (\$ 0.15) Civilian: 50 PRs (\$ 0.72)
	CMH	Military: PRs 0 (\$ 0.00) Civilian: PRs 2,800-3,500 (\$40.60-51.00)

### **Frequency of Use of Health-care Services**

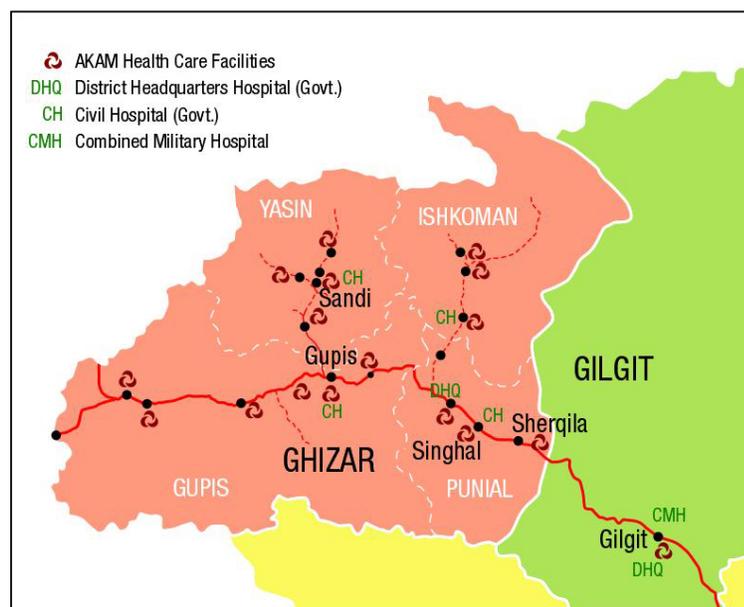
From the patients' perspective, the cost of health care is not just a function of the cost of an average visit to the doctor but also depends on how frequently they must visit the doctor. Participants of eight FGDs were asked how often members of their households frequented available health-care providers. Table 15 shows the responses from FGDs held in two villages at the extreme geographic ends of our study area in Ghizar: Sandi and Sherqila. (See Figure 13) Sandi, a village in Yasin tehsil is the furthest study location from Gilgit (145 kilometers/232 miles away) and Singhal, while Sherqila, in Punial *tehsil*, is the closest to Gilgit (40 kilometers/64 miles away) and located between and about equidistant from Gilgit and Singhal. For those in Sandi, the closest medical facility that offers a high level of inpatient care is the EFHC in Gupis. In contrast, villagers in Sherqila have direct access to several major hospitals including Singhal Medical Center and those in Gilgit. We use these two villages to represent the range of findings related to the average frequency with which residents visit various health-care facilities.

In both locations, participants indicated that someone from their household visits the local dispensary multiple times a month. While the total number of visits reported per household seems quite high, it is in line with experience in other countries.<sup>8</sup> The

<sup>8</sup> Pott, John (2010) personal correspondence.

greater proportion of all health-care facility visits are for outpatient treatment of common ailments, not covered by the HMI. Hospital visits are less frequent, in part, because they are for treatment of more serious illnesses some of which may require admission. The frequency of visits has implications for the total cost of health care borne by households in a given year. The pattern suggests that households may have a high level of outpatient related medical expenses.

**Figure 13: Map of Ghizar District Showing Sandi and Sherqila**



**Table 15: Frequency of Visits to Health-Care Providers (per year)**

<i>Destination</i>	<i>Sandi (Far Location)</i>	<i>Sherqila (Near Location)</i>
Local Govt. Dispensary	24	36
Local MCHC (AKHSP)	12	24
Gupis EFHC (AKHSP)	12	na
Singhal Civil Hospital	na	12
Singhal Medical Center (AKHSP)	4	24
Gilgit DHQ	4	12
Gilgit Medical Center (AKHSP)	1	12
CMH Gilgit	na	12

A comparison of the findings in Sherqila and Sandi highlights some interesting patterns. The number of health-care visits for households in Sherqila is more than twice that for Sandi. Sherqila households show a higher propensity to seek hospital care than households in Sandi. Households in Sandi report one visit to GMC annually, whereas household members in Sherqila may frequent all the hospitals in the town once a month. Villagers from Sandi frequent DHQ-Gilgit and SMC somewhat more often, once every three months. This is consistent with the lower

cost of DHQ-Gilgit and the closer proximity of SMC. These findings are also consistent with the finding discussed earlier that those living in villages close to Singhal and Gilgit have more regular access to major hospitals than those who live in more remote villages. Those in Sandi visit the Gupis EFHC once a month, the same frequency with which those in Sherqila go to hospitals in Gilgit. The patterns observed in the use of health-care services in these two villages suggest that household health-seeking behavior depends on household income and proximity to the health-care provider. In the next section, we explore the findings on the indirect costs related to health and hospital care and gather further evidence of the impact of proximity on health-seeking behavior.

### **Indirect Costs of Health Care**

In addition to the direct costs of health care, patients also incur significant indirect costs related primarily to transportation and expenses for attendants, such as family members who travel with and look after the patient (See Table 16). Among the most important indirect costs for the population of Ghizar are those associated with transportation. Patients usually have four options to reach health-care facilities: by foot, public transportation, hiring a private car or ambulance. Participants clearly indicate a preference for walking if at all possible because it is free. This is evident in that they frequent those facilities to which they can walk much more often than those to which they must pay for transport.

In the case of an emergency, such as a difficult labor or serious illness, households are more likely to hire a private car. In some villages, residents may not have any other option depending on location and time of day that transportation is needed. For example, in one community that is separated from the highway by a river, all public transportation leaves before 7:00 AM, after which time residents have no option but to hire a car. Finding a private car can also be difficult, as one FGD participant observed: *“When one lady was pregnant, they could not get the transportation to reach the hospital on time and she died.”*

Only a few hospitals and MCHs have ambulances and these also have a cost. While a few FGDs mentioned the availability of an ambulance, they were tellingly not mentioned in the FGDs that discussed the costs of accessing health care.

The cost of transportation to reach medical facilities varies substantially depending on the mode of transportation and distance from the provider. Again, the analysis uses data from Sherqila and Sandi to highlight the differences in experience of those communities located near and far from major health-care providers. Not surprisingly, places identified as near have an advantage over those identified as far. Being proximate to Singhal and Gilgit, the cost of reaching a major hospital is substantially less for Sherqila residents. This is compounded for serious illnesses or emergencies when people need to use a private car to travel to hospital. Those that live in Sherqila, for example would pay 1,250 PRs (\$18 USD) for a private car, while those in Sandi would pay 4,000 PRs (\$57.50 USD) one way. Thus, while transportation costs are substantial for all patients, the costs associated with living far from Gilgit are nearly prohibitive when the average monthly income of the lower middle class is 6,000 PRs (\$87 USD). It is important to note that if private transport is used, these costs can exceed the direct costs of medical care.

**Table 16: Transportation Costs from Sandi and Sherqila**

<i>Destination</i>	<i>Origin: Sandi</i>		<i>Origin: Sherqila</i>	
	<i>Mode of Transport</i>	<i>One Way Costs (USD \$)</i>	<i>Mode of Transport</i>	<i>One Way Costs (USD \$)</i>
Sandi Govt. Dispensary	walking	\$0		
Sandi MCHC (AKHSP)	walking	\$0		
	private car	\$5.80-8.70		
Gupis EFHC (AKHSP)	public transport	\$0.72		
	private car	\$31.90		
Sherqila Govt. Dispensary			walking	\$0.00
Sherqila MCHC (AKHSP)			walking	\$0.00
Singhal Hospitals (Civil & SMC)			public transport	\$0.43
	private car	\$58.00	private car	\$21.74
Gilgit Hospitals (DHQ, GMC, CMH)	public transport	\$5.80	public transport	\$1.60
	private car	\$115.95	private car	\$36.23

Other indirect costs associated with hospital care include a patient's meals and attendant support's meals and lodging. The costs of food and lodging vary by location, with larger towns being more expensive, and also by the type of attendant facilities provided by the hospital. While we obtained some data on the cost of lodging, the FGDs were unable to provide data on the cost of food for patients or for attendants.

A final set of associated costs involves the opportunity costs of time. At least one family member must accompany a patient to the health-care facility to care for and feed the patient. Often more than one person will go so that there are multiple attendants. Initially, one of these people is likely to be male because women cannot travel unaccompanied out of their home village area. Additionally, men are usually responsible for finances and needed to make payment arrangements. Thus, the opportunity costs include the time men spend working as well as the time women spend on house and farm work.

The above discussion demonstrates that the costs related to hospitalization go well beyond the direct costs of hospital treatment. Household medical-related expenses include transportation costs, patient meals, patient's attendants' meals and lodging and the opportunity cost of time for all concerned. It is important to note that the HMI will not cover any of these indirect costs even though the transportation costs alone can exceed the cost of inpatient treatment.

## CUMULATIVE COSTS OF HEALTH CARE

Previously in this chapter we described the overall pattern of health-care sequencing whereby patients usually visit the health-care provider closest to their home and then, if unsuccessful in treatment, get referred up the health-care hierarchical chain until they can be successfully treated. For example, someone who presents at Sandi MCH and cannot be treated is referred to Gupis-EFHC because it is the next stop in the AKHSP system. If Gupis-EFHC cannot treat the patient, he is referred to Singhal Medical Center, also part of AKHSP. The government and military health-care systems operate in the same manner. The sequencing of health care, particularly in cases where diagnoses or treatment are difficult, adds another dimension to the cost of health care.

The total cost of care for one episode of illness will depend on the composition of direct and indirect costs, as well as the health-care sequencing followed by the patient. Clearly, the more facilities a patient visits before obtaining the necessary care, the higher the total accumulated costs will be. There was some limited evidence from FGDs that people in Ghizar believe that they must follow a mandatory referral system when seeking health care, especially from the AKHSP system, or there will be negative consequences. If this were true, it implies that patients feel forced to visit more health-care facilities than they would have if left to make their own decisions. Evidence suggests, however, that the referral system is not mandatory and that patients are able to see whichever health-care provider they choose. Since people cannot easily afford hospital care and prefer to stay closer to home, they tend to follow the referrals of doctors. The end result is that patients with conditions that are difficult to diagnose or treat may check in to several health facilities before receiving successful treatment. This will be particularly true for patients who live further away from Gilgit as they have more facilities between their homes and the major hospitals in Gilgit.

To demonstrate the impact on costs when patients are referred up the health-care hierarchy, three hypothetical scenarios were constructed based on transaction cost data from eight FGDs. The scenarios were constructed once again to compare the experiences of villagers from Sandi and Sherqila. Costs related to care at each facility were estimated based on the ranges of costs that FGD participants provided for direct health-care expenses, transportation expenses and attendant expenses. The sequencing of health care was assumed based on the frequency-of-use data from Sandi and Sherqila and it was further assumed that patients spend one night at each hospital before proceeding to the next. Participants in Sandi indicated that they primarily use AKHSP facilities, except within Sandi and Gilgit, where residents may use government providers. In contrast, those in Sherqila indicated a greater propensity to use government facilities.

The variation in the cumulative costs between patients who originated in Sandi and Sherqila highlights the significant differences between using AKHSP and government facilities as well as differences in costs for those that live near to or far from Singhal and Gilgit. Patients from Sandi who ultimately require treatment in Gilgit will incur expenses ranging from \$131.90 - \$308.70 USD for care at DHQ-Gilgit to \$168.12 - \$352.17 USD, for care at Gilgit MC. Patients from Sherqila who seek treatment close to home before seeking care in Gilgit will incur costs ranging from \$54.50 - \$105.08 USD at DHQ-Gilgit to \$68.70 - \$137.70 USD at Gilgit MC.

Although the HMI would cover all the direct hospitalization cost, people from “far” locations such as Sandi, could virtually deplete their entire benefit with one a night stay at each of the facilities along their referral chain. Moreover, the transportation

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Household medical-related expenses include transportation costs which can be substantial, food for the patient, support costs for the patient's attendant and the opportunity cost of time for the attendant.

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Although the HMI would cover all the direct hospitalization cost, patients from far locations such as Sandi could virtually deplete their entire benefit with a one-night stay at each of the facilities along their referral chain.

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costs will be significant for those who live far from Singhal and Gilgit and comprise a substantial proportion of their total health-care costs. This is true even if a family forgoes the referral chain and immediately chooses to seek care directly at one of the hospitals in Gilgit. Thus transportation expenses would comprise the greatest portion of health-care costs for people from far villages such as Sandi.

For patients from near locations in Punial and parts of Ishkoman, such as Sherqila, direct costs of health care represent a larger portion of total costs related to hospital care because indirect costs, primarily transportation, are lower. As the HMI only covers direct hospitalization costs, this would make the insurance more useful for those living near Singhal and Gilgit. Furthermore, transportation expenses also require cash up front, which may represent a critical financial barrier to accessing hospital care. This suggests that those families living closer to health facilities will be more likely to take up the HMI.

**Table 17: Hypothetical Scenarios of Cumulative Costs Related to Hospital Care**

<i>Destination</i>	<i>Origin: Sandi</i>		<i>Origin: Sherqila</i>		<i>Origin: Sherqila</i>	
	<i>Cost of Health Care</i>	<i>Cumulative Costs</i>	<i>Cost of Health Care</i>	<i>Cumulative Costs</i>	<i>Cost of Health Care</i>	<i>Cumulative Costs</i>
Sandi Govt. Dispensary	\$0	\$0	NA	NA	NA	NA
Sandi MCHC (AKHSP)	\$2.17-11.60	\$2.17-11.60	NA	NA	NA	NA
Gupis EFHC (AKHSP)	\$25.37-65.20	\$27.54-76.80	NA	NA	NA	NA
Sherqila Govt. Dispensary	NA	NA	\$0	\$0	\$0	\$0
Sherqila MCHC (AKHSP)	NA	NA	\$5.80-7.25	\$5.80-7.25	NA	NA
Singhal Hospital Civil	NA	NA	NA	NA	\$23.62-48.00	\$23.62-48.00
Singhal MC	\$85.50-94.20	\$113.04-171.00	\$31.20-57.97	\$37.00-65.22	NA	NA
Gilgit-DHQ,	\$18.86-137.70	\$131.90-308.70	NA	NA	\$30.88-57.80	\$54.50-105.80
Gilgit GMC,	\$55.08-181.17	\$168.12-352.17	\$31.70-72.48	\$68.70-137.70		

Note: Total cost of health care = direct cost of care + transportation costs + attendant support costs.

## SUMMARY

Health-seeking behavior in Ghizar was found to vary by medical condition and by demographic factors such as income, gender, age, location of residence, religious affiliation and occupation. Unless the health problem is urgent, there is an overall pattern of health-seeking behavior wherein most people attempt to treat the problem themselves and only when necessary do they then seek basic medical care close to home in order to keep costs down.

Respondents preferred the hospitals in Gilgit over all of the health-care facilities available to them in terms of the quality of care. They preferred facilities close to

home in terms of cost and proximity. Generally, the AKSHP facilities are preferred over government facilities, except in terms of cost. However, the poor and much of the middle-income group appear to be unable to afford care at AKHSP facilities.

Household health care related costs were also found to depend on the frequency of visits to providers, which were reportedly high. Costs related to hospital care of Ghizar patients were found to include direct costs of medical care—such as treatment, lab tests or prescription drugs—plus indirect costs such as transportation, patient meals, the patient attendants' meals and lodging and the opportunity cost of time for all involved. Costs related to hospital care also depended on sequencing of care as patients are referred up the health-care system.

The evidence implies that health-care costs in Ghizar can be substantial; when combined with an underlying preference for the AKHSP health-care system, it suggests that there should be demand for the HMI. However, the research also found that the HMI only covers a portion of the total costs related to hospital care. For those living far from the hospitals, the direct costs of hospital care may be outweighed by indirect costs. This suggests that the value proposition of the HMI may be higher for families that live closer to the major hospitals.

The research findings also have implications for the implementation of the HMI. FMiA was reportedly considering the imposition of a referral system for HMI policyholders using the AKHSP system. The objective of such a system is a good one: to prevent overburdening of premier facilities when patients could have been easily and successfully treated closer to home. However, the converse is also true. A rigid referral system will cause some patients to waste time and money working their way up to the level of health care that they obviously needed from the start. AKAM is reportedly considering a telephone referral policy that may well introduce efficiencies into the system.

As noted in Chapter 3, the baseline study was partly exploratory research. In that chapter, we laid out a causal model of the impact of the HMI and proposed a set of indicators for measuring changes in the health-seeking behavior of the Ghizar population in response to the HMI. Based on the baseline research findings, we suggest a modified set of indicators to be measured at the endline that include:

- shorter delays in seeking hospital treatment;
- switching to higher quality health care. For example, switching from free government hospitals to fee-for-service facilities, such as AKHSP or other hospitals;
- more frequent use of hospitals;
- increasing rate of attended births at hospitals or MCHs.
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**Hundur MCH, Ghizar district**

# VII. FINANCIAL MANAGEMENT OF HEALTH RISKS

The Outcomes Assessment seeks to answer these questions: Does the availability of HMI permit households to use less stressful coping strategies to deal with health risks? As a result, do households incur lower out-of-pocket costs when accessing inpatient health care? This chapter reviews household coping strategies at the baseline. The previous chapter reviewed where people *go for* health care and how much it costs them. Here, we directly follow up this line of thought and address the question: How do people currently *pay for* health care and how does this impact their households?

This chapter first examines health risks in the context of other risks that Ghizar households face in order to assess whether or not health risks are a priority concern. It then examines how households cope with health shocks and how effectively their coping strategies protect household well-being. Next, the chapter reviews consumer demand and preferences for available financial services. Consumer risk management preferences are then put into context through a review of the existing financial landscape to assess the availability, advantages and disadvantages of various risk management financial products, including other health insurance products. This allows for a better understanding of the range of options available to households before the HMI program.

## PARTICIPANTS' PERCEPTIONS OF MAJOR RISKS

Many studies conducted across the globe indicate that health shocks usually rank as the first or second most important risk faced by low-income populations. This is also true for the Ghizar population. Participants spoke about the risks they face and how they cope with them in eight FGDs. The top three most frequently identified risks were illness, flood and accident. Flooding results in the highest financial costs, but illness is the most widespread and frequently occurring risk. As a result, household income is more likely to be consistently eroded by persistent health-care costs. Accidents usually require health care and therefore will be considered in this analysis as a health-related risk.

### Causes of Poor Health and Accidents

Participants in FGDs identified a number of causes for the high degree of illness in their communities. They can be summarized as hygiene issues, environmental conditions and cultural factors. These three factors produce two of the most commonly cited health problems: stomach ailments and respiratory problems. With respect to hygiene, the main issue identified by participants is that many communities lack clean water. Environmentally, Ghizar district is one of extreme conditions with dry hot summers and bitterly cold winters, both of which present considerable health challenges. Culturally, participants report that people's tendency to drink a lot of tea, smoke (mainly men) and use snuff (both men and women) also gives rise to many diseases.

Participants identified myriad causes for road accidents. One very serious problem is that unlicensed and untrained drivers use the roads. Another is poor road conditions and no footpaths for pedestrians. One group estimated that their community

experiences between 10 and 15 accidents a year. Virtually anyone moving along this highway, whether by vehicle or foot, risks being involved in an accident.

### **Impacts of Poor Health and Accidents**

The financial costs associated with illness were discussed at some length in the previous chapter, showing that the costs of health care can be significant. Accidents also usually result in significant medical expenses similar to those for a serious illness. At a minimum, participants estimate that the cost of an accident is between 5,000 to 6,000 PRs (\$73 to \$87 USD) to cover basic first aid or funeral expenses. As noted earlier in the report, a number of very common illnesses can result in hospitalization in this area. The length of stay, treatment location and costs for these common health concerns will have important implications for the value proposition of the HMI to this population. The most serious cost of an accident or illness, however, is the possible loss of an income-earner if the person dies or is disabled. Even if they recover the household will suffer a temporary income gap.

## **COPING STRATEGIES**

### **Ex-ante Coping Strategies**

Participants indicated that they use a number of different ex-ante or preventative strategies to avoid both illness and accidents. To prevent illness, individual- or household-level strategies target the harsh climatic and poor sanitary conditions. For example, households try to consume what they consider high-energy foods, to wear warm clothes, and to be careful to use clean water sources. In the winter, family members gather in one room for warmth and to conserve firewood. Villages located along the main highway have adopted a number of communal strategies as preventative measures to avoid accidents.

To mitigate the costs of an accident or illness, people also try to save money. This can take several forms such as maintaining passbook accounts, keeping livestock, reducing consumption and increasing savings. Unfortunately, household savings are often insufficient to the need.<sup>9</sup> Once savings are no longer effective, households must turn to ex-post coping strategies—ones that people use after a financial crisis has occurred.

### **Ex-post Coping Strategies**

For illness, non-financial coping strategies generally involve delaying medical attention until absolutely required. As noted in the previous chapter, most FGDs indicated that in response to poor health, people self-medicate using traditional remedies or allopathic (i.e., “Western”) medication obtained from government dispensaries or medical stores. Only when these approaches fail, do they seek formal medical attention, which may exacerbate a problem rather than resolve it.

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The dominant mechanism households use to cope with a medical crisis is borrowing, primarily from relatives.

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<sup>9</sup> The research did not uncover how much savings households hold on average. However, analysis of data from The First Microfinance Bank suggests that the average savings deposit at their branches in Ghizar district varies from 3,833 to 8,721 PRs (\$USD 55.55 to 126.39).

#### BOX 4

##### ***Classification of Coping Strategies***

Coping strategies can be categorized based on their long-term impact on household well-being. Following Montgomery (1996) three levels of coping strategies are differentiated: low-stress, medium-stress, and high-stress are distinguished.

Low-stress coping strategies are used to deal with relatively low value and easily reversible shocks such as minor shortfalls in income. These strategies include expenditure saving activities, changes in diet, short term migration for work by a family member and calling in debts from friends and family.

Medium-stress coping strategies are used to manage sudden crises which are less easily reversible. These strategies include using up cash savings, borrowing from family and friends, pledging future labor for advanced wages.

High-stress coping strategies are used in response to severe and irreversible economic shocks. These strategies include selling off productive assets and pulling children out of school.

Both medium- and high-stress strategies will increase household vulnerability by constraining the household's ability to earn income in the future.

(Sebstad & Cohen, 2001)

Given the inadequacy of households' precautionary and non-financial ex-post strategies, the dominant mechanism to cope with a medical crisis is to borrow money from relatives. When this strategy no longer works, they borrow from other sources, often at high interest rates, such as shopkeepers, VO/WOs, the FMFB, and Cooperative Societies. Participants indicated that they do not typically use formal financial service providers because they do not qualify for loans.

To repay debts, participants do casual labor and reduce household food expenses. Often however, people have no other sources of funding and are required to sell household assets such as livestock, fruit, trees or land. Selling productive assets under duress can have very serious long-term financial consequences for the family, as one participant explained:

*I sold my cow from which I was getting milk. This cow was producing two liters of milk daily and we were making butter from the milk and selling it. This cow was an income source for me, but in an emergency I had to sell the cow to gather money for treatment.*

##### **Strategy Effectiveness**

Participants indicated that most of the current financial coping strategies are not sufficient for consumers in their area. Households have little or no savings; after savings are depleted, families have little resources to rely on and must invest time in saving again. For example, while middle class households may manage the costs of minor illness, they do not have sufficient funds and must combine savings with ex-

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While the rich have many possible options for their risk management strategies, including formal, semi-formal and informal sources, the poor primarily have access to informal sources.

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post coping strategies to cope with a severe problem like heart surgery. Borrowing money from formal sources places a significant long-term financial burden because of interest charges. As one participant stated “*We get loans, but we are afraid that tomorrow we will become defaulters.*” To avoid this eventuality, they take on additional work, sell assets and too often withdraw their children from school to reduce household expenditures. These are high-stress mechanisms to cope with a shock and actually leave households more vulnerable than before. (See Box 4.)

## DEMAND FOR FINANCIAL SERVICES

While the rich have many possible options for their risk management strategies, including formal, semi-formal and informal sources, the poor primarily have access to informal sources. The middle class mainly uses semi-formal and informal financial services providers, but have some access to formal financial institutions, especially if a household member has wage employment. Sources of emergency loans for coping with health crises are relatively few and largely represented by the informal sector. But if a business professional has a line of credit or a wage employee has an account at a commercial bank, they may be able to access loans that can be used for medical crises. If the need is imminent, then informal sources are the best option because they provide loans very quickly. Indeed, participants indicated that relatives and shopkeepers can have loans ready within hours. VO/WOs and Cooperative Societies take a day or two to process loans, whereas formal sources can take multiple days or even weeks to provide credit.

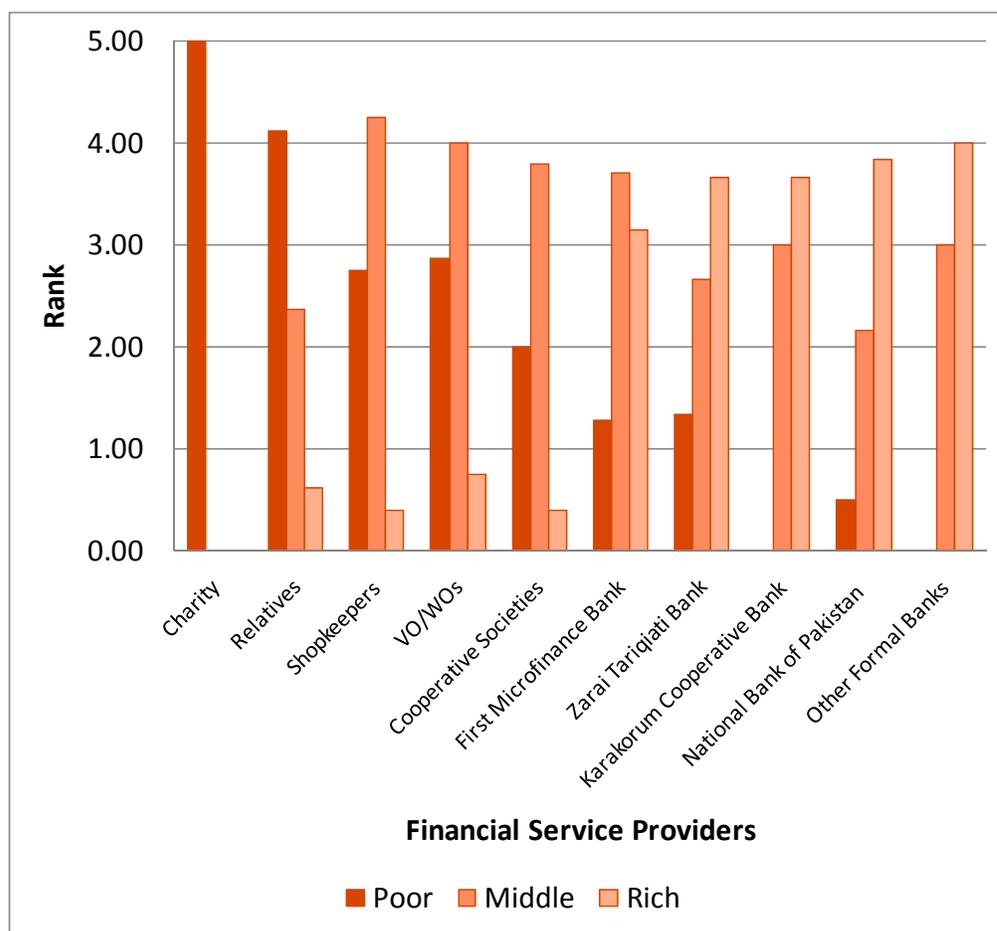
### Access to Financial Service Providers

Access to, and use of, various financial service providers by different socioeconomic groups were addressed in eight FGDs. Participants were asked to rank the use of financial service providers by the three socioeconomic groups on a scale of 0 to 5, where 0 means the group does not use it at all and 5 means that they are regular users (see Figure 14).

#### THE RICH

As expected, the rich have easy access to formal financial institutions. Some groups indicated that the wealthy would not use the First Microfinance Bank because they prefer to get individual loans. However, others believed they could easily obtain loans from this source. They also may or may not belong to a cooperative society and their local VO/WO. However, even if they are members of these institutions, participants indicated that they are unlikely to borrow money from them because the available loan sizes are too small. They are also reticent to borrow from shopkeepers and their relatives because doing so would compromise their social status. In the event of a health emergency, participants believe that this group would have enough of their own resources in the form of savings that they would not need to borrow. However, if they did need money for a health crisis, they could either use a business professional's line of credit or easily obtain a waged employee's salary loan.

**Figure 14: Financial Service Provider Use by Socioeconomic Group**



Note: Zarai Tariqati Bank is a state-owned, agriculture development bank. At the time of the survey, they were no longer providing loans as borrowers had ceased all repayments for political reasons. Since it was inactive, this bank is not discussed in the supply section. Under normal circumstances, the bank provides loans to farmers.

#### THE MIDDLE CLASS

The middle class use a wide range of financial service providers. For those employed in the public or private sector or who own their own businesses this includes commercial banks, where they have both savings accounts and can access loans. Small entrepreneurs also use The First Microfinance Bank, from which they can obtain group loans. However, if the timing of these loans is not in sync with the health emergency then it may not be a viable option. Similarly to the wealthy, this group may divert loans obtained for other purposes in the event of a health crisis. In addition, they can, and do, obtain loans from their VO/WOs, shopkeepers and relatives in the event of an emergency. VO/WOs are a main source of loans for this group because they keep most of their savings with these organizations.

#### THE POOR

The main sources of loans for the poor are relatives and to a lesser extent VO/WOs. Participants indicated that this group often does not join VOs or WOs partly because of the savings requirement, which is difficult for them. Without membership and the associated savings, borrowing is not an option unless the borrower knows two members willing to act as guarantors. Shopkeepers were also identified as a common source of emergency loans for this group, but if the store owner does not trust the person to repay their debt, loans will not be available. They may also borrow through cooperative societies, but this again requires two loan guarantors, because the poor

are unlikely to be shareholders. The FMFB may also be a source of loans, but only through the group methodology, which may be impractical in a health crisis. Finally, those with low wage employment in the public or private sector may be able to access salary-backed loans through some commercial banks, but only if they have an account.

## **SUPPLY OF FINANCIAL SERVICES**

Findings from the supply side research largely substantiate those from the demand research. The financial landscape, which is comprised of formal, semi-formal and informal financial service providers, offers savings, loans, insurance, remittances and on-line payment transfer services. As noted above, however, the poor and middle class mainly use informal and semi-formal service providers. An examination of the main service features offered by these providers illustrates their advantages and disadvantages for various socioeconomic groups.

The first indicator of why people use particular financial service providers is the spatial configuration of the landscape. Most commercial bank branches are only present in district headquarters—Gakuch and Gilgit towns. The Karakorum Cooperative Bank and First Microfinance Bank as well as cooperative societies are located in smaller towns within the study area and informal providers are found throughout the region including villages. Given the costs of transportation discussed in the previous chapter, it should come as no surprise that the lower the income, the more likely a household is to primarily use financial service providers that they can reach on foot.

### **Informal Financial Services**

#### **VILLAGE ORGANIZATIONS AND WOMEN'S ORGANIZATIONS**

Village Organizations and Women's Organizations (VOs/WOs), established by AKRSP, exist in virtually every village in Ghizar district. One of the main activities of the VOs/WOs are managing members' savings and providing them credit. As a result these organizations represent one of the main sources of informal financial services in the region. Typically only VO/WO members can borrow from a VO/WO, although there are some exceptions. This primarily benefits the middle class as the average member is from the middle-income group, with a monthly household income in the range of PRs 6,000 (\$ 87.00 US) to PRs 12,000 (\$ 174.00 US). A key informant reported that the WO's are more active and more likely to have savings on deposit than the VOs.

While under normal circumstances savings withdrawals are discouraged, some (but not all) VO/WOs allow members to withdraw from their savings for health emergencies. These funds are often used to cover transportation costs which are often the first significant cash outlay in a health emergency.

Those VO/WOs that do not allow members to withdraw savings make loans for health emergencies. The internal lending process is governed by a loan committee, but loan decisions are made collectively by members at regular meetings. Some WOs/VOs tie loans to the amount of savings on deposit. For others loan size depends on the member's need. If money is readily available, it takes two to three days to disburse a loan, according to key informants.

Loan interest rates range from 10 to 20 percent per annum and loans are to be repaid within one year. Some VO/WOs also offer the option of repaying in installments. Recovery of loans is quite good according to key informants.

#### **ROTATING CREDIT FUNDS**

Two women market vendors' committees, established by AKRSP, offer loans to members for urgent health care at Gilgit Medical Center. One woman used all of her PRs 20,000 (\$289.86) loan to obtain treatment for typhoid, while the other used only PRs 10,000 (\$144.93) for care of a different health problem. These organizations are not often found in Ghizar district. Bachat Committees, similar to ROSCAs in other countries, were not found in the Ghizar district although they are common in other parts of Pakistan.

#### **MONEYLENDERS**

Borrowing from informal sources such as shopkeepers and moneylenders is a primary coping strategy for Ghizar residents, especially the middle class and poor. Key informants indicated that people borrow first from shopkeepers or moneylenders (the same people are often both) while FGD participants suggested that people seek financial assistance from friends and family first. In any case, moneylenders are likely to have more cash on hand than friends and family.

Two moneylenders were willing to speak to the research team. On average, they had provided 20 loans in the past year for everything from health emergencies to land purchases. One provided four loans for health emergencies ranging in size from 10,000 to 35,000 PRs (\$144.93 to \$507.25 USD). These are substantial sums; second amount is larger than the per person annual limit of the HMI. Loans are provided and repaid in cash over a very short time period. If borrowers are unable to repay on time (a frequent occurrence), the duration and interest rate of the loan are increased or the borrower is forced to repay in-kind by selling livestock, trees, crops/fruit or land at substantially reduced values. The level of interest and flow of payments varies by case. While the effective annual interest rates are much higher in the informal sector than the formal, the ready availability of funds and lack of need for collateral make these attractive sources of credit for the poor and middle-income groups.

### **Semi-formal Financial Institutions**

#### **MULTI-PURPOSE COOPERATIVE SOCIETIES**

In addition to informal financial services, there are a number of Ismaili multipurpose cooperative societies operating in the study area. These appear to be a regional phenomenon and are registered with the Registrar for Cooperative Societies in Gilgit. Cooperative societies are found in different parts of Ghizar but have geographic catchment areas that are limited to one or a few towns only. One cooperative reported that their customer base consisted of families earning about 6,000 PRs (\$86.96 USD) per month. This would place these customers at the top of the poor or bottom of the middle-income socioeconomic groups.

Cooperative societies are among the most flexible financial service providers in the Northern Areas when it comes to emergency health loans. One reported that it received 30 to 40 requests for health loans each year. If approved, they can issue a loan within one day for up to a one year term. The loans for health emergencies range from 25,000 to 100,000 PRs (\$362.32 to \$1,449.28 USD). The interest rate charged on loans was reported to be 14 percent at the time of the survey. Another co-op officer mentioned that doctors or officials at an AKHSP hospital referred patients to cooperatives for financing. Despite the flexibility and easy conditions of cooperatives, the effectiveness of this credit source is limited by their small outreach and the fact that only shareholders can obtain loans.



**First Microfinance Bank Branch, Gupis, Ghizar District**

### **Formal Financial Services**

The formal financial services sector consists of commercial, cooperative and microfinance banks. All three types of institutions are subject to regulation under the State Bank of Pakistan in varying ways. Both commercial and microfinance banks have greater latitude in the range of activities permitted to them than cooperative banks. Of the three types of institutions, microfinance banks are the mostly widely used in Ghizar district followed by cooperative banks.

#### **MICROFINANCE BANK**

The First Microfinance Bank (FMFB) is the only microfinance bank in the Northern Areas and the main formal financial institution used by the Ghizar population. In part, its appeal reflects its geographic reach. Currently in the study area, FMFB has six branches in Gilgit, Gakuch, Gupis, Phander (*Gupis tehsil*), Taus (*Yasin tehsil*), and Chatorkhand (*Ishkoman tehsil*). Of the 10 branches operating in the Northern Areas, five are in Ghizar district.

While FMFB's mandate is to foster economic development by serving the poor, like other microfinance institutions, its clientele is in fact largely middle class as defined in this report. The bank provides financial services designed specifically for people who earn less than 12,500 PRs (\$181.16 USD) per month. FMFB focuses particularly on women since they are underserved by other financial institutions. FMFB offers savings and loan products with insurance components, but no product specifically to address health risks. However, because money is fungible and it is difficult to check the actual utilization of loans, management reports that it is possible that borrowers may use part of their loans to meet health-care costs. Loans are provided with interest rates ranging from 18 to 24 percent annually, on a flat basis.

With health problems resulting in a number of loan defaults, FMFB management has recognized the need for a health emergency loan. One was reported to be under development at the time of the research. All FMFB loans are insured through NJI credit life insurance, which provides benefits in case of permanent disability, death or accidental death. Additionally, shortly before the field research, FMFB started to offer the First Bachat Tanzeem savings account, which is a commitment savings product with a life insurance component. FMFB reports that FBT customers are saving for education or marriage expenses and for health emergencies.

#### COOPERATIVES

Only one regulated cooperative was found in the study area, but it is a significant presence in the financial landscape. The Karakorum Cooperative Bank (KCB), with 300,000 customers, is the largest financial institution operating in the Northern Areas of Pakistan. Its mission is to provide credit and banking facilities to the poorest of the poor. However, as with other formal and even semi-formal financial service providers, it mainly reaches the upper- or middle-income groups. It has the largest geographic reach with a network of 26 branches in the Northern Areas, five of these in the Ghizar district. Loans are provided at 19 to 21 percent interest per annum.

KCB can be flexible in cases where existing, good customers need emergency financing for health reasons. General customers can use their lines of credit in case of emergencies. In an average year, 10 to 12 existing customers of KCB request emergency loans for health problems. Emergency loans can be arranged within two to three hours. Most of the time, customers who need this assistance have an approved credit limit that they can use for a health emergency.

#### COMMERCIAL BANKS

In total, seven commercial banks operate in the study area. All operate in Gilgit town and three have branches in Gakuch or Singhal, in Ghizar district. All focus their lending activities on other areas of the country, where opportunities are viewed as lower risk and better yielding. Findings indicate that they are affecting a substantial transfer of savings from the Northern Areas to other parts of the country.

Commercial banks operating in the study area are all conventional banks. They are hesitant to support small borrowers because of the administrative costs of vetting such loan applications and the unavailability of collateral among these borrowers. These practices, combined with the banks' locations, mean that only the wealthiest typically have access to these providers through a running finance account for business. In addition, those with steady wage employment of any income level may access salary-backed loans. At the time of the research, loans had interest rates of 15.5 to 22 percent. Banks also charge a range of fees on top of the interest expense, which increases the costs of obtaining credit (see the Annex for a more detailed discussion of the costs of obtaining credit).

Respondents reported that commercial banks do not knowingly provide loans for medical emergencies. However, it is quite possible that some customers might utilize running finance or salary loans for this purpose. One branch manager estimated that 15 to 20 percent of all salary-backed loans are used for health emergencies. It is unlikely that anyone other than the wealthy customer would be able to obtain a loan from a commercial bank for a health emergency.

#### **Transaction Costs of Accessing Financial Services**

The research team examined transaction costs related to accessing financial services in order to determine if they are a limiting factor in the use of specific risk managing strategies. Eight PRAs were conducted to examine the transactions costs of obtaining

financial services. The research showed that financial services were already fairly inaccessible to ordinary households and that transaction costs were not a dominant limiting factor (see Annex 5.)

### **Insurance Companies**

It is important to explore one final financial service—insurance—because it is the most obvious competition for the HMI. The general insurance market in Pakistan comprises the private and public sectors. The former is composed of 42 local companies (13 of which are active) and one foreign company. The National Insurance Company Limited is the only direct insurer for the public sector.

The majority of insurance companies operate in the non-life and general insurance business while five underwrite life insurance. Recently, a few Takaful (Islamic insurance) companies have started operations. There are three in general insurance, which is akin to property insurance. An additional two focus on family insurance, which is like life insurance, but sometimes has provisions for children's education.

In general health insurance has played a subsidiary role for the insurance companies. Allianz EFU Health Insurance Company is the first and only specialized health insurance company in Pakistan. Other than Allianz EFU, health insurance is marketed by both life and non-life insurers to the corporate sector, which provides health insurance to their employees as part of their benefits package. Only a few companies have ventured into individual health plans so far.

Allianz EFU provides group health insurance for employees of certain large organizations operating in the Northern Areas. Depending on the company's preference, the insurance covers just the employee or includes the family. Benefits include basic hospital care, limited hospitalization, limited maternity services and outpatient treatment. Allianz has selected a panel of hospitals. Like the HMI program, Allianz EFU issues a health card that allows policyholders to use covered hospitals on a cashless basis. Similarly, policyholders can use government or military hospitals on a reimbursement basis. The limits and terms of the policy are negotiated with companies depending on number of employees. It is estimated that Allianz EFU may have more than 1,000 persons covered in the Northern Areas.

In 2005, Adamjee Insurance partnered with a network of NGOs to provide health insurance to the poor. In other parts of Pakistan, the Adamjee health insurance product is marketed through microfinance institutions (MFIs) or rural support programs (RSPs). It has been sold on both a voluntary and mandatory basis in association with microcredit. Early on, Adamjee Insurance developed a health insurance product for the AKRSP program area, but it was never implemented due to AKRSP's reticence. An informant suggested that Adamjee was unable to attain the minimum of 50,000 policyholders, which were necessary for beginning operations there. As a result, HMI is the first health insurance product in the region, which despite being a group product is widely available to the general public.

### **SUMMARY**

This chapter has shown that the population has relatively few financial options in the event of a health crisis. There are no private health insurance options other than HMI in the region, except for the relatively few who obtain health insurance through their employer. Household savings, when available, are often insufficient for the need. As a result, many households borrow to cover immediate medical expenses. Of the three types of financial service providers available, most people turn to informal and semi-formal institutions in the face of a health emergency. Only the upper income group and business professionals can access credit from formal financial

institutions with the exception of the FMFB. Some of the middle-income group may be able to borrow from the FMFB, but even group borrowers will have difficulty obtaining loans to meet health crises. Therefore, loan options are often limited for the poor and middle class. They are able to borrow less and must pay more for loans to cover the costs of a major health crisis. The more geographically remote a household is, the fewer financial options it has and the higher the cost of borrowing. If households have difficulty repaying their loans after a health crisis, the research has shown that they may sell productive assets or provide labor at low rates to remove the burden of debt. These are high-stress coping strategies, which increase household vulnerability.

The objective of the HMI is to protect families from the catastrophic costs related to hospital care. The use of the HMI is assumed to reduce household vulnerability by allowing households to substitute a low-stress, proactive coping mechanism for the medium- or high-stress coping strategies that they may currently use to meet the costs of health risks. The HMI covers up to 25,000 PRs (\$362.32 USD) of inpatient costs at covered health-care facilities for a premium of 400 PRs per person, per year. Based on the information received from residents, the HMI can effectively protect families from most of the direct costs of one week of hospitalization at an AKHSP hospital or a much longer stay at a government hospital. The question of the actual effect of the HMI on out-of-pocket health care costs will be assessed in the endline report. The next chapter baselines the Ghizar population's access to and purchase of the HMI.



# VIII. A Baseline View of HMI Access & Purchase

## INTRODUCTION

The preceding chapters demonstrate that there is significant need for an insurance product to help families manage health expenses and suggests that demand for the HMI product should therefore be quite high. This chapter examines in detail whether or not this is the case. It explores two critical steps to impact—access and purchase—by examining who had the opportunity to buy the insurance and who eventually did. This chapter reviews the sales patterns and levels of enrollment observed in 2008. The discussion that follows will highlight the advantages and disadvantages of using local community development organizations as distribution channels. We also explore the impact of geographic location, knowledge of insurance and household decision-making processes on HMI purchases. The chapter concludes with lessons learned.

## HMI ENROLLMENT IN GHIZAR DISTRICT IN 2008

The HMI product was launched in Ghizar district with a marketing campaign beginning in the summer of 2008. Sale of the insurance policies was originally planned for the month of September similar to the schedule followed for the pilot test. Due to staff shortages which delayed the onset of the marketing, the enrollment period was moved to the month of October and then sales were extended through November 15<sup>th</sup>. Coverage by the HMI started on November 1<sup>st</sup> with the result that the sales and use of the insurance overlapped by two weeks. However, total purchases of the HMI in Ghizar, based on enrollment data, were disappointing. On a district-wide basis, only four percent of the population purchased HMI coverage. Within the defined marketing areas, 13 percent of families (1,562 of an estimated 5,124 households) purchased the insurance (see Annex 4 for more details on enrollment by LSO). (See Figure 15.)

**Table 18: HMI Enrollment in Ghizar District, 2008**

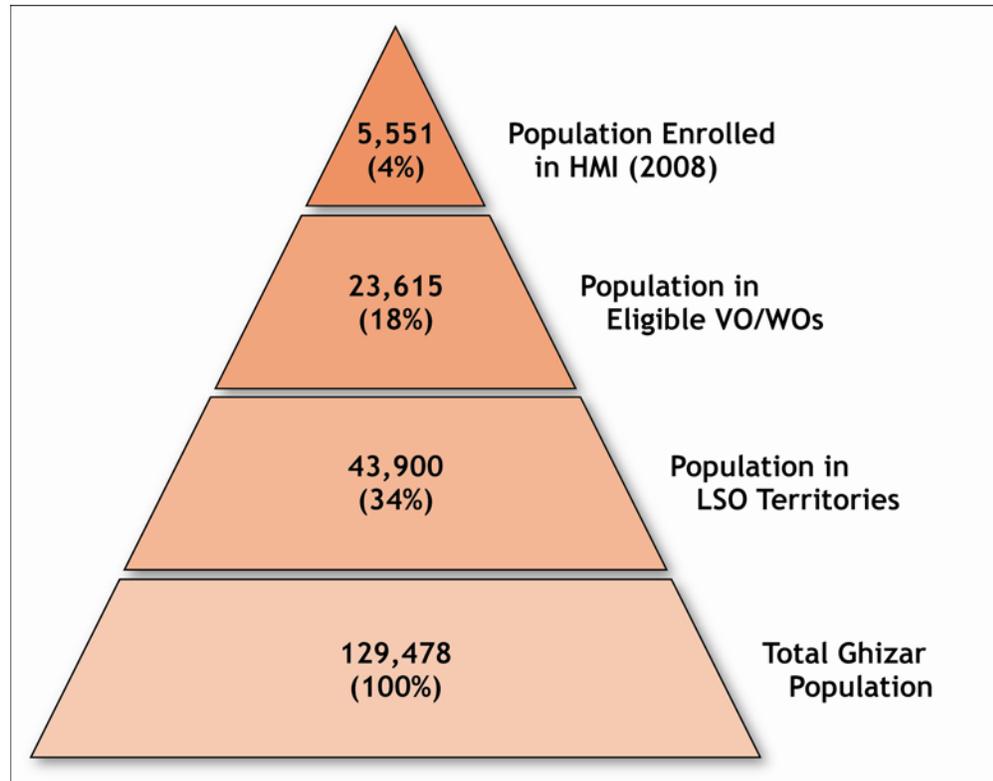
Total Population in Ghizar	129,478
Total Population in LSO market areas	43,900
Total Households in LSO market areas	5,124
Total VO/WOs in LSO market areas	103
50% Threshold (# Hhds)	2,563
Eligible VO/WOs	54
Enrolled Families	1,562
Enrolled Persons	5,551
Persons Enrolled as a percent of total population in LSO market areas	13%

Source: FMiA. 2009.

Enrollment directly affects the potential sustainability of the HMI program. Just more than 19,000 individual policyholders were reported across the entire Northern Areas as of December 2008. This was just short of the target of 20,000 insured set by

AKAM. However, most FMiA and AKAM respondents across administrative offices pointed out that enrollment would need to increase substantially beyond 20,000 for the HMI to become financially sustainable.<sup>10</sup>

**Figure 15: Access to HMI in Ghizar District, 2008**



### ACCESS

Understanding access, defined as the opportunity to buy the HMI product, is essential to interpreting these enrollment results. Access is fundamental to both the commercial success and impact of the HMI product. The research began with the assumption that HMI access would be largely determined by household characteristics and eligibility, which in turn would depend on community-level characteristics. Focus group discussions with residents, individual interviews with key informants and enrollment data show that access to the HMI was largely determined, and in fact constrained, by the marketing territory, VO/WO eligibility and consumer awareness of the insurance. All of these factors were, in turn, influenced by the effectiveness of FMiA's marketing and distribution systems.

FMiA selected LSOs as the distribution channels for the product; the use of community development institutions for cost-effective marketing and sales is a key element of the HMI innovation. The LSOs were required to be legally registered institutions in order to serve as HMI group policyholders. Six out of eight LSOs in Ghizar met the criterion of legal registration. As a result, the HMI marketing

<sup>10</sup> AKAM reports that an estimated 100,000 insured lives will be required in the Ghizar district for the HMI product to breakeven. J. Pott (personal communication, May 2010)

territory, within which consumers had access to the insurance, was defined by the boundaries of the areas represented by the six organizations.

FMiA used a cascade approach for marketing and promoting the microinsurance. Marketing information flowed from FMiA through the LSOs to then to their member VOs and WOs and ultimately to the consumers. To facilitate their active participation in the marketing and sales of the HMI, the LSOs and VO/WOs received limited financial incentives, 12 PRs (\$0.17 USD), per policy sold. The incentives were reported by FMiA to be split equally between the LSOs and VO/WOs based on actual policies sold.

Consumer eligibility to purchase the HMI depended on meeting two requirements. Entire families were required to enroll and at least 50 percent of all households belonging to a VO/WO had to purchase the HMI for the population of that VO/WO area to be eligible to buy the insurance. Because men generally belong to Village Organizations and women belong to Women's Organizations, FMiA combined the two organizations and then counted the households to ensure that no households were double-counted for the purposes of establishing eligibility.

### **Marketing Territory**

Access to the HMI was limited by the LSO-defined marketing territory. The six LSOs represented 34 percent of the Ghizar population, or about 43,900 people.<sup>11</sup> Consequently, FMiA found that there was significant demand for the insurance from outside the marketing areas, notably the areas near to the Singhal Medical Center and in Chatorkhand town where there were no registered LSOs. FMiA allowed families in these places to sign up for the insurance under the umbrella of Sangum, one of the six LSOs. While this increased access, it was contrary to the initially established eligibility requirements. Moreover, it makes it impossible to accurately determine the percentage of the district's population that ultimately had access to the HMI.

### **Eligibility**

Within each eligible LSO, VOs/WOs could either be eligible or not depending on whether 50 percent of their member households wanted to purchase the insurance. In practice this meant that in many locations families had to provide their completed paperwork and identification information to the VO/WO representative or directly to the LSO and only after all the applications were received by the LSO was the determination made of whether or not the families respective VO/WO was eligible.<sup>12</sup> In the 2008 enrollment period, 54 of 103 VO/WOs were eligible for the HMI. Establishing this eligibility turned out to be more complex than anticipated.

The method to establish VO/WO eligibility was modified during enrollment when difficulties were encountered in the field. For large villages containing several VOs and WOs, eligibility was established as planned and based on a threshold of 50 percent of all households belonging to a VO/WO. In the case of small villages, eligibility was established on a village-wide basis; that is, 50 percent of all households in the village were used as the threshold. For clarity and consistency purposes, we will refer to eligibility at the VO/WO level throughout this report. Ultimately, some households who wished to purchase the policy were unable to do so because they were in an ineligible group, however the group was defined.

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<sup>11</sup> Population is estimated to be 129,478 (2005 estimate)

<sup>12</sup> Note that families did not have to be members of a VO or WO; they only needed to live within the territory of an eligible VO or WO to be eligible for the HMI.

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Access to information about the HMI was found to be uneven, which means that a significant portion of the Ghizar population was likely unaware of the product.

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One surprising find of the research was that the requirement that entire families purchase the insurance discouraged and sometimes prevented single people from enrolling.<sup>13</sup> When FMiA staff was aware of single people, such as widows, who wanted to purchase the HMI, they combined these individuals into other families to give them access. But this option was only available to a limited number of people, as most single people did not realize that this opportunity was possible.

Based on the number of eligible VO/WOs and the population that they represent, the number of individuals who obtained insurance coverage is surprisingly low. This is due to the fact that eligibility thresholds were projected based on numbers of households while the insurance eligibility was established based on number of families purchasing the insurance. The enrollment data show that families purchasing the insurance had an average of 3.55 members with family sizes ranging from an average of 2.98 members in Gupis Rural Support Program (GRSP) to 4.49 in Karamber LSO. These numbers are much lower than the estimated average household size of eight to nine people and strongly suggest that the insurance was purchased on a nuclear family basis.

The discrepancy between households and families is explained by the extended family culture prevalent in Ghizar district. The word “household” in this context generally refers to joint families, while the word “family” is used in this report specifically to denote a nuclear family. One respondent described joint families in this way:

*“Urban families are mostly nuclear families...rural families are joint families. That is, they [rural families] consist of several adult brothers and their families living under the same roof...13 to 16 people can all live under the same roof...on average three adult brothers will live together.”*

There are good reasons why the insurance was purchased on a nuclear family basis rather than a joint family basis. It is cheaper for the breadwinner to insure only his own immediate family. Moreover, the HMI package includes one life insurance policy for one designated breadwinner. In a joint family there may be several breadwinners. To cover each of them with life insurance would require that each nuclear family purchase their own HMI policy, which is what we believe happened.

The implications are significant of using numbers of households to set eligibility targets but then using numbers of families to calculate actual eligibility. The threshold eligibility targets, if met just minimally, implied a certain number of policyholders and a specific level of premiums earned, based on an assumption that the average household size was 8.5 people.<sup>14</sup> For example, in the Hasis Bala VO in Puniyal *tehsil*, the threshold for eligibility was 43 households, representing 366 people. In actuality, 48 families applied for and were eligible to purchase the insurance although they only had a total of 196 members (about four people per family) representing only 54 percent of the original threshold population.

The eligibility requirements were undermined as fewer people needed to purchase the insurance for the entire VO/WO to be eligible. From this perspective, the outcome increased access to the insurance for those who wanted it. This may be a positive outcome for consumers, but it might not be positive for the HMI program. It raises

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<sup>13</sup> The requirement that entire families purchase the insurance is a device to discourage adverse selection. That is, it is to prevent a situation in which only sick people buy the Health Microinsurance.

<sup>14</sup> Based on data provided by FMiA.

the question of whether the protections against adverse selection were undermined by the enrollment process. That is, were sick families more likely to be able to buy insurance since the numbers of willing nuclear families needed to reach the eligibility threshold were lower than planned? The second implication is that FMiA may have met their targets in terms of the numbers of families they signed up, but they will have fallen far short of targets for the numbers of people enrolled. This means that premiums earned will have been lower than anticipated since they are charged on a per capita basis. Both of these issues will impact the sustainability of the insurance program.

While we have outlined some of the ways in which access was constrained in this first year of the program, in fact access could have been more limited than it actually was. This is because of the way in which the eligibility requirements worked in practice.

### **Customer Understanding of Insurance**

A key element in access to the HMI is customers' awareness of the product and how to purchase it. *Insurance awareness* is just one part of the concept of *insurance understanding*, which for the purposes of this analysis is considered to consist of four interrelated elements: *awareness*, *appreciation*, *comprehension* and *trust*. *Awareness* refers to whether or not someone has heard of the insurance product. *Appreciation* means that they both know of it and have some sense that it might be useful to them. *Comprehension* means that they understand all of the product details and how it works. Finally, *trust* has to do with whether or not a person has faith in insurance generally and the HMI product specifically. Awareness determines access to the HMI while the other aspects of insurance understanding affect the purchase of microinsurance. This section discusses all four aspects. This section discusses all four aspects.

Access to information about the HMI was found to be uneven—a significant portion of the Ghizar population was likely unaware of the product. For example, four out of 24 FGD groups reported that they had never heard about the HMI when asked explicitly about their knowledge of it. Most of the FGD participants who reported how they learned of the HMI (eight of the 15 FGDs) said that their LSO informed them about the product. LSO outreach however was perceived to be inconsistent. For example, one group stated that the LSO was providing information only to some communities and not to others.

Raising awareness was not solely the responsibility of LSOs. Five FGD groups reported that they learned of the HMI from their WO, while four other groups reported hearing about it in the Jamaat Khana (literally “community house” or house of worship for Ismailis). Interviews with Local Health Board (LHB) representatives confirmed that the marketing and outreach by FMiA, LSOs and VO/WOs varied across communities. In fact, it was found that the LHB representatives themselves were sometimes not informed about the HMI. These findings strongly suggest that for some, HMI access was restricted because they were not aware of the product.

The VOs/WOs, as grassroots organizations with a widespread presence in the community, would appear to be a good choice for channeling marketing messages to consumers. Those who originally designed the marketing and distribution system for the HMI believed that virtually all adults in Ghizar belonged to a VO/WO. In fact, this was not the case. For example, 88.1 percent of FGD participants in this research belong to a VO or WO, while a key informant at FMiA reported that he believes that only 80 percent of households belong to a VO or WO. The implications are that not

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The study findings suggest that difficulty in achieving the VO/WO eligibility requirements may be related to people's limited knowledge of the importance of insurance.

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all households in a community can be reached by communicating solely through the VOs/WOs.<sup>15</sup>

While lack of awareness of the HMI was one barrier to access, actual awareness of the product did not necessarily translate into enrollment. Of the FGD participants who discussed their awareness of the HMI, 42 percent did not purchase the insurance. To explore the link between insurance understanding and the demand for the insurance, we asked FGD participants about their level of understanding of the product and its attributes. We also probed for their attitudes toward insurance.

Participants of twenty FGDs had at least minimal knowledge of basic HMI product details. They knew that it was a health insurance product developed by the Aga Khan Foundation and that the entire family must enroll. They could identify the premium and benefit amounts per person. They were aware that the HMI only covers inpatient treatment. Some groups also knew that pregnancy was covered along with free pre- and postnatal checkups, but the exact number was unclear to most. Only one group indicated any knowledge of the life insurance benefit. Most understood that the policy was limited to a one-year term, but it is not clear that they knew what the renewal process would be.

While many participants had a reasonable grasp of these very basic aspects of the HMI, the finer points proved confusing. One of the most important issues was where they could use the insurance. Some thought it was only at AKHSP facilities; only a very few knew that it covered most AKHSP facilities, DHQ-Gilgit and CMH hospitals. They were also uncertain about whether they would receive free medical checkups and if so, how many. There was a great deal of confusion about exclusions, specifically those related to age and wellness. There was also uncertainty about what exactly would be covered. Some thought only minor illnesses would be, while others believed only majors ones would be. Finally, one woman expressed an unusual concern. She said: *“We were told that once we bought [the insurance] we would have to continue it otherwise [we would] not be admitted to the AKHSP system.”*

These findings were reinforced by several stakeholders, including all LHB respondents, who remarked that communities had insufficient knowledge and comprehension of the HMI product and that broader awareness campaigns were needed. For example, one LHB official stated:

*“The HMI has been introduced in a short time and [they] did not provide enough information to the community and health care providers...there is no involvement of Local Health Boards.”*

Another said:

*“There is not much awareness in the community. The Ismailis know about it, but they also need motivation and it should be accessible to all [religious] communities...There is no publicity awareness campaign and the time frame to sell the HMI product is very limited.”*

The findings suggest that some of the difficulty in achieving the VO/WO eligibility requirements may be related to people's limited knowledge of the importance of insurance. A few key informants, particularly the LHB representatives, said that

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<sup>15</sup> Note that household membership in a VO or WO was not a requirement to purchase the insurance

significant numbers of residents did not apply for the HMI because they did not fully understand it.

Even for people with sufficient awareness, appreciation and comprehension of the product, lack of confidence or trust appears to be an obstacle. In part, this may reflect the fact that they did not have a full understanding of who was behind the product other than that it was an AKDN effort. One FGD specifically mentioned that it was a problem that they had not heard about the product from FMiA staff directly. *“We got the information through the LSO, but the representative of HMI did not give us information directly. So we are concerned about the agents [i.e., the staff of FMiA].”* While another group thought that their LSO was lying because as they said: *“How could some company pay our health expenses?”*

Because of a lack of trust in insurance generally, and the HMI specifically, a few FGD groups wanted to know more about the company behind the HMI and how it works. In contrast, one WO manager, who was also an FGD participant, said: *“The AKHSP staff came to me and shared the information about the HMI and I thought that it will be very helpful in times of health problems. So, I bought the insurance.”* This suggests that the messenger is as critical as the message in marketing the HMI in the Northern Areas.

### **Role of Marketing in Shaping Access to HMI**

Marketing is a decisive variable in shaping customer understanding in a new insurance market such as the Ghizar district. Marketing efforts in 2008 were hampered in three distinct, but interrelated ways. There was insufficient FMiA staff to reach all the places necessary. The willingness of LSOs and VO/WOs to assist FMiA in their marketing efforts varied across LSOs, while a lack of time curtailed the even the most motivated LSOs and VO/WOs from reaching their entire customer market during the enrollment period.

According to FMiA staff, the job of marketing the HMI was very challenging because of the limited number of paid staff relative to the territory they had to cover. Indeed only one marketing officer was assigned to work in the Ghizar district. Distances between the FMiA office in Gilgit and the LSO locations in Ghizar can be great, creating logistical challenges for the FMiA staff. Despite FMiA’s endeavors, LSO and VO/WO efforts to market the HMI were inconsistent, ranging from tremendous effort to very little effort. The lack of effort was attributed to limited financial incentives for HMI sales, which could not compare with other larger, more lucrative projects in which some LSOs were engaged. However, the research revealed that certain LSOs lacked sufficient information about the product, hindering their ability to effectively market it to their member VOs and WOs.

To augment their own efforts and those of the LSOs and VO/WOs, FMiA staff took a number of additional steps. They reached out to interested community activists for assistance and marketed directly to teachers and students through the schools. In some locations, staff at AKHSP health facilities were encouraged to market the HMI and there is some evidence that this had an impact. The HMI was publicized through a 45-minute documentary airing on local cable TV. While the FMiA staff directly marketed the HMI through Jamaat Khanas in parts of the Northern Areas, they were unable to do so in Ghizar because they lacked local language skills. Marketing in Ghizar was especially challenging for FMiA because it required frequent visits to check on progress at the grassroots level. In addition, due to staff turnover, FMiA

### **BOX 5**

#### **INSURANCE COMPANIES AND TRUST**

A number of FGDs and one stakeholder mentioned two financial scandals as explanations for people's lack of trust in insurance. In the “Big Board” scandal, a regional Ponzi scheme, “investors” collected large sums from villagers, VOs, WOs and others in the region on promises of very attractive returns. Unfortunately, these savings were all lost when the Big Board staff suddenly disappeared. The second scandal mentioned was related to State Life Insurance, which sold a number of individual life insurance policies in the area, but never provided any proof that people were actually covered. One FGD participant said her father-in-law paid PRs.6000 (\$86.96) for State Life insurance and is still waiting for the policy documents. Another FGD respondent stated that State Life agents took money from people and disappeared.

only had about two months in which to market the HMI. Despite their tremendous efforts, this severely hampered their ability to achieve sufficient marketing outreach. As a result, information on the nature and availability of the HMI was insufficient to facilitate a full understanding of the insurance among the target market.

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Access to the HMI depends to a large degree on willingness to purchase it.

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At the outset, we had assumed that access to the HMI would be determined by household and community characteristics that would feed into VO/WO eligibility among other things. Our findings show that access was determined by marketing territory, VO/WO eligibility and awareness of the product. Access was effectively denied for those who were unaware of the product. For others, access may have been denied because their VO/WO was ineligible as a result of low demand for the HMI due to poor appreciation, understanding or trust in the product. The design and quality of the HMI marketing appear to play a more significant role in determining access to the HMI.

In our causal model, we have presented the relationship between access and purchase as unidirectional. Our findings show that the picture is more complicated. The eligibility of VOs/WOs for the HMI is directly dependent on the desire of member households to purchase the insurance. This means that access to the HMI depends to a large degree on willingness to purchase the HMI. We turn now to an analysis of the findings on purchase.



**Al Karim Development Organization (LSO) office, Taus, Ghizar District**

## **PURCHASE**

As discussed, enrollment in the HMI was lower than anticipated. This section examines who is not purchasing the insurance and why in order to explore the factors that affected people's decision. We then turn to the question of who is buying the insurance, why and how the purchase decision was made. These questions were explored through focus group discussions with 16 groups as well as through individual interviews with key informants at the LSOs, VO/WOs and the LHBs.

### **Who is Not Purchasing the HMI and Why Not?**

Findings indicate that the most important link between access and purchase is affordability, which consumers expressed in a variety of ways. The key informant interviews and FGD participants identified several types of people who did not buy the insurance. Three groups were cited frequently: poor families; large, usually joint families; and families who were already insured.

Poor families were the most frequently identified group who did not purchase the insurance. While this is in part a function of family size, in all likelihood there are households for whom the cost would be prohibitive regardless of size. As one participant put it succinctly, *"This insurance is easy for rich people and hard for poor people."* Indeed, a number of LSO managers and FGDs indicated that there are "ultra-poor" households in their communities for whom even meeting the basic necessities of life is challenging.

Large families also have difficulty affording the insurance and are thus less likely to buy it. Most people live in joint households, which present particular problems. As one participant explained,

*“I am living in a joint family that has 22 members. If I buy only for my own children and wife then it creates domestic problems. The other members of the family will be rude to me and complain that I bought it for myself, why not for them. So I did not buy it [at all, because] I do not have enough money to buy for [everyone].”*

This finding suggests that nuclear family units within joint households may have difficulty purchasing the insurance even if they can afford it.

Other groups not purchasing the insurance include military families who were not considered likely prospects for the HMI because they already have access to free health-care services. In fact, some military family members among the FGD participants gave this reason for lack of purchase.

Wealthy families were also said not to purchase the HMI, in this case because they can more easily afford health-care costs. A small number of groups suggested that non-Ismailis, particularly Sunni and Shia Muslims, would not buy the HMI because it is an Aga Khan product. Key informants however said that these “sister communities” bought or did not buy the insurance based mainly on income level. It could also be that the awareness of the HMI was lower in these communities, a situation that FMiA has acknowledged and plans to address in the next marketing cycle. Some households did not buy the HMI because they did not believe they would get sick and need it. For example, one participant said *“No members of my household get sick. So I won’t use the HMI.”*

When the research examined the reasons that people did not buy the HMI, issues around awareness and knowledge of insurance were evident again. For example, key informants stated that there was much confusion and insufficient information about the HMI. An FGD participant confirmed this saying that: *“Some people are still confused about the policy, which is also a main reason for not buying it.”* In some cases, families signed up for the insurance and came back later and asked for their money back due to the confusion. LHB key informants were unanimous in identifying a lack of awareness as a reason for the low uptake of the HMI among the population.

One FGD suggested that some households did not have enough time to buy the HMI because they only learned about it very late in the enrollment process. For example, an FGD participant said, *“I came to know very late [about the insurance] as the date to buy the HMI was closed.”* A few households were reported to be interested, but unable to purchase the HMI because they did not have the resources to do so at the time. Key informants also agreed that the sales period was too short even though it had been extended from four weeks to six weeks.

From a marketing and sales perspective, these responses suggest that both the length of marketing time and the timing of the enrollment period are critical. There is some evidence that there were competing demands for cash during the enrollment period. One group reported that people in these communities tend to conserve their resources for purchasing needed items, such as food, fuel and warm clothes, in November as winter approaches. AKAM and FMiA originally timed the insurance enrollment to coincide with the end of harvest in September when farmers have income. In 2008, the sales period was delayed. Normally one-month long, it began in mid-September and was extended into mid-November. If November is in fact a period when families stock up for winter, the window of opportunity for selling the insurance may be quite small.

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Findings indicate that the most important link between access and purchase is affordability, which was expressed in a variety of ways by consumers.

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As discussed above, key informants at the LSOs and VO/WOs reported that there was a general lack of trust in insurance. Some families are waiting on the sidelines to see if those households who did purchase the insurance will, in fact, get benefits. Similarly, a few participants thought that some people are just reticent to try new ideas.

Finally, three FGDs suggested that some households did not buy the HMI because the head of the family was absent at the time the decision had to be made. Indeed, two women FGD participants said that they wanted to buy it, but could not reach their husbands in time, raising the issue of household decision-making, which is addressed below.

Because many responses regarding HMI purchase reinforce the findings on access, it was a surprise to find that a disaggregated analysis revealed no differences among groups of participants' level of knowledge and understanding based on whether they purchased the insurance or not. Some of those who felt they had a clear understanding of the HMI, as well as some who did not, purchased the insurance. Likewise, among those that did not buy it, there were both people who felt comfortable in their level of knowledge and understanding and those who did not. The relationship between understanding and purchase of insurance is not clear-cut in this case. Taken in combination with the findings about which groups did not purchase the insurance it suggests that affordability is the decisive factor. However, the evidence also suggests that future enrollment rates could increase through improved marketing communications.

The findings on who is not buying the insurance also revealed some interesting and unexpected customer segments for the HMI. At least two FGD participants bought the HMI despite the fact that their husbands are in the military. Although this may represent a minority perspective, one woman said:

*“My husband is in the army and he is not always around so I bought the HMI in case of emergency because I cannot access the military medical facilities unless my husband is with me. Also since CMH is in Gilgit I can't access it without my husband because I can't travel alone. So, the HMI gives me access to medical care locally without my husband having to be around.”*

As with the military, those with access to other health insurance through their employers were mistakenly assumed to be unlikely HMI prospects. For example, AKDN agency employees are provided health insurance as a job benefit, but it only covers them individually. Furthermore, AKHSP employees have health coverage, but it only covers care at AKHSP facilities. Therefore, some of these employees viewed the HMI insurance is attractive because it allows them to cover their families and receive care at other facilities. It should come as no surprise then that, according to an FMiA staff member, 50 to 60 percent of AKHSP employees signed up for the HMI to obtain coverage for their families.

### **Who Purchased the HMI and Why?**

While the analysis of why some groups are not buying the insurance can highlight marketing issues, an examination of who did purchase it will illuminate who might benefit from it in the foreseeable future. New HMI policyholders gave a range of reasons for purchase. The discussion below draws upon the FGD findings as well as key informant responses to provide more detail on who purchased the insurance and why.

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One of the main reasons families purchased the insurance was that they had some pre-existing problem for which they could easily anticipate using the insurance.

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One of the main reasons families purchased the insurance was that they had some pre-existing problem for which they could easily anticipate using the insurance. These included pregnancy and an ill or elderly family member. For example, one participant said “My mother-in-law is a heart patient, which is why I bought the insurance.” Similarly, several participants gave pregnancy as their reason for buying the insurance. For example, one pregnant woman specifically said that she had two children through c-section delivery already and that her husband was jobless. Another participant said: *I’m a tailor and pregnant. My husband did not agree, but I bought the HMI and paid the money myself and he does not know. My view is that this will help me in my delivery.*

The contention that people with pre-existing conditions purchased the insurance was substantiated by an FMiA staff person who noted that he knew of a couple of hysterectomies that took place among HMI insured patients in the days immediately following the HMI startup. Among FGD participants, as compared to key informants, this was the most frequent response to the question of who is buying the insurance. If this perception reflects the motivations of most purchasers of the HMI, it implies that although many policyholder households are highly likely to obtain a benefit from the insurance in the short term, the HMI product itself may have difficulties reaching financial viability.

People also bought the HMI to have in the event of an emergency. Some participants recognized that it would provide them free health care should the need arise. Similarly, others felt that if they had the insurance it would save them both the time and money involved in chasing down loans to cover the costs of any needed hospitalization. Thus, in an emergency their health care needs would be covered. One reason for purchasing the HMI that only emerged in one FGD was the life insurance benefit, suggesting perhaps that this is not considered an important feature of the insurance, or that people were not very aware of it.

Key informants and FGD participants also provided insight into who purchased the HMI in their communities. Middle class and wealthy households, especially those with regular income earners, were the two main groups identified as purchasers of the insurance. For example one FGD participant said she bought it because “*as a school teacher, I have the money.*” Several key informants offered that those with smaller families bought the insurance because they could more easily afford it. (Indeed, one participant mentioned the small size of her family as the reason she was able to buy.) Similarly, some LSOs felt that those with more education who could better understand the policy would be more likely to buy the insurance. This, too, is related to income because the well-off are usually better educated. As mentioned above, a few participants had a contrary perspective suggesting that the rich would not purchase it because they did not need to.

A few respondents among the LSOs and FGDs mentioned that Ismailis were more likely to buy the product because it is affiliated with their religious leader, the Aga Khan. In fact, a few people specifically bought the HMI for this reason. They believe in the product because it comes from the Aga Khan and they want to contribute to its success. This suggests that the Aga Khan is a strong brand. Some of these people also articulated an altruistic perspective, consistent with Ismaili values, stating that if they did not use the benefit themselves, others would.

Another group identified as purchasing the insurance was “early adopters” or those who embrace new things generally. Finally, VO and WO members were reported by key informants to be more likely to purchase the HMI. This appears to be true of the small sample who participated in the FGDs. The research team found that 95.4% of all FGD participants who bought the insurance were VO/WO members.

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The sales data show that households in the LSO territories that were more distantly located from the main hospitals in Singhal and Gilgit were significantly less likely to buy the insurance.

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The research indicates that the HMI is affordable to the middle and upper income groups of the region, but that it is unaffordable by the poorest segment of the population. This fits generally with what AKAM believed and intended.

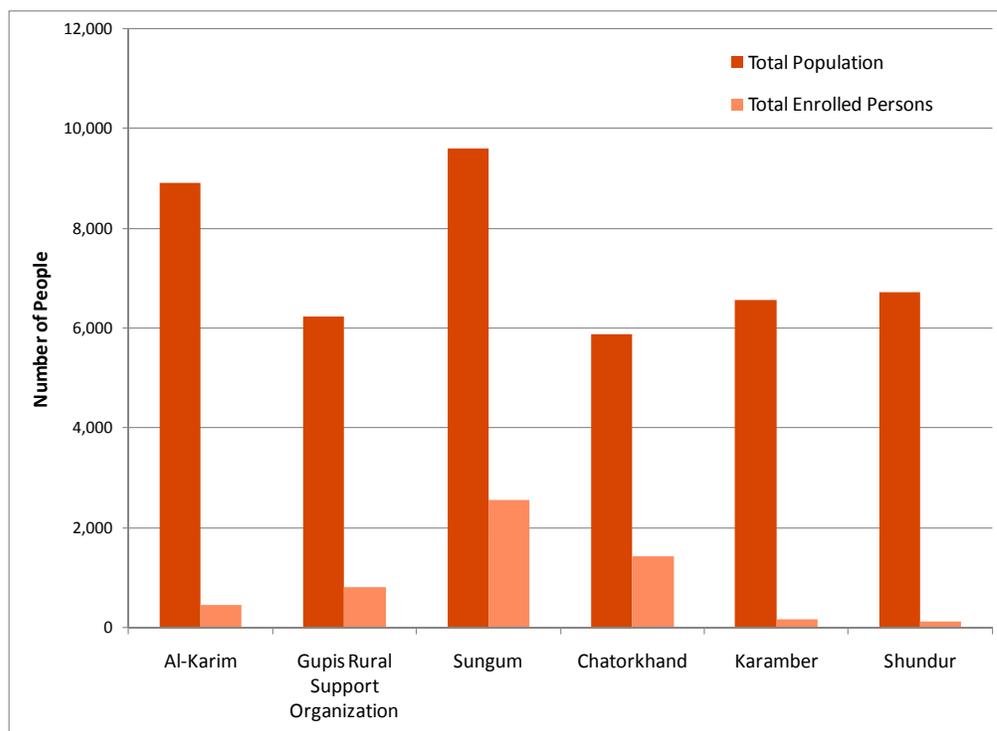
*The AKAM target market ...[are] families in the second lowest income quartile – those with an average monthly income of 4800-9600 PRs, or \$80-\$160 USD per family, 30% of whom are at risk of descending into absolute poverty during their economic lifetime through household-level catastrophes (AKAM 2007).*

### Geography Matters

Overall, the findings from key informants and FGD participants imply that affordability was the most significant, but not the only element in families' purchase decisions. Enrollment results varied significantly across the LSOs. In two of the six LSOs, only three out of 36 total VOs/WOs were eligible for the insurance. Within the other four LSOs, 51 of the 67 VO/WOs were eligible. Figure 16 shows quite clearly the significant impact of geography.

The two LSOs representing Karamber and Shundur, the locations farthest from hospitals, had the lowest purchase rates; only 2 to 3% of the population bought the insurance. The LSO with the closest proximity to hospitals, Sangum, appears to have had the highest share of the population who bought the insurance, at 27%. However, this was an LSO in which non-LSO families were allowed to enroll, thus, the actual share of the Sangum LSO population that purchased the insurance is unknown.

**Figure 16: Comparison of Persons Enrolled in HMI to Total Population, by LSO, 2008**



As discussed elsewhere in this report, these sales data show a distinct geographic pattern to insurance purchases: Households in the LSO territories that were more distantly located from the main hospitals were significantly less likely to buy the insurance. We propose several explanations for this.

- Consumers in more remote locations were less likely to be aware that the HMI was available. Marketing efforts were less intense in the “far flung” areas (as FMiA staff refer to them) as those were harder to reach. This certainly appears to be true of the Shandur LSO marketing area, where inadequate marketing was reported as the primary reason for limited HMI uptake. Although there is less direct evidence regarding other remote areas, one Regional Health Board chair identified “*those who live in remote areas where this message has not gone out*” as one group that has not purchased the insurance.
- People in remote areas are also simply poorer, making them probably less able to afford the HMI even if they had been reached by more intensive marketing. These more remote areas are often at higher altitudes (the location of the Shandur LSO office is at an altitude of 12,000 feet) which means they have only one crop harvest per year (compared to two in lower altitudes) and they are sometimes accessible only by unpaved roads which makes it more expensive to move goods and services either into and out of these communities.
- The research suggests that distant households are more likely to have a member actively employed in the armed forces. This would lower household demand for the HMI because family members would be covered by health insurance through the military.
- Transportation costs and the time needed to travel to hospital are significantly higher than for these remote consumers than for people who live close to the main hospitals. In the Shandur area, it was reported that the poor cannot even afford to travel to Gupis to visit the AKHSP hospital there. As a result, there is less incentive for people in these locations to purchase insurance as their first obstacle to accessing care is the cost of transportation rather than the cost of the care itself. As a key informant in Shandur reported: “*In view of the extremely high transport cost many people die and are unable to be treated if seriously sick.*”
- Finally, consumers in these locations may have less incentive to purchase the HMI since they are not able to use it year round. For example, the same key informant stated that people are unable to obtain hospital treatment in winter because “*from December to April, in case of heavy snowfall, roads are blocked for several days.*”

Factors related to geography need to be explored in future research. The evidence to date suggests that uptake might increase in these areas if the product marketing improves. However, there is even more evidence to suggest that the value proposition of the HMI is lower for remote populations due to the structure of their medical-related costs. As a result, demand in these areas will remain lower than that in locations closer to hospitals. Next we explore *how* households decided whether or not to purchase the HMI as part of the overall explanation of 2008 outcomes.

### **Household Decision-making**

Household decision-making regarding HMI purchases specifically was explored in 16 FGDs and more generally, in individual interviews with key informants. This question is of interest because health-seeking behavior varies by gender (as shown in Chapter X). For example, women have a strong preference for the AKHSP health care system. Given their different preferences for health care, it was assumed at the outset that men and women would have different preferences for the HMI product. Interestingly, responses to questions about how households actually made the decision to purchase the HMI fell into three categories. The decision was often

negotiated between men and women family members – with women being strong advocates for the insurance.

In one example, the members of large household discussed the matter as a group and jointly came to the decision with the funds coming from household members' WO accounts. One woman described the process as follows:

*We live in a very cold area. In winter there is always snow around. We don't have much food, clothes or firewood and we have a big family of 18 members. We could not afford to give everything to each family member, but we thought there is always a chance of falling ill, and so we decided to buy the insurance. First, the male household head did not appreciate the policy and said that there wasn't any money because they spent it all on the marriage of two sons. Then the women of the family said, "We have money in the WO. We want to withdraw that money and buy the insurance because in winter the children go to school by foot,... children don't care about their clothes and frequently get ill. This HMI will support us if they get sick during the winter." After a big discussion (2-3 hours) with the family we decided to buy the insurance.*

Another example shows that only income earners participated in the decision-making. A woman respondent recounts the decision-making this way.

*I asked my husband over the phone about it because he was not at home and he said he would send money so I could buy it if I was sure that it was good. He didn't have a problem with it. My father-in-law was not happy, but we got the HMI because my husband was in favor of it. My husband gave me money so I could buy the HMI.*

Another household followed a similar decision-making process but decided not to buy the insurance.

*My husband is blind and my son is in the army. When I shared the information about the HMI with my husband, he told me to contact my son and if he agrees then we can buy it. After two or three days, I finally reached my son and told him about the HMI, but he refused and said that we have free facilities in the army health system.*

The final approach to decision-making is one in which the household head decides on their own without much if any input from other family members. One woman said that after attending a meeting about the HMI she went home and tried to convince her father-in-law to purchase it, but he felt it was too expensive. Another woman, who had lost her husband a month and half earlier, is now the head of her nuclear family. She decided that as a schoolteacher and due to her small family size (three children) she could afford it and it would save her money later on health care, which was important because she would not have the help of her husband, who had taken care of health expenses, anymore.

Both FGDs and key informants suggested that the male household head usually makes decisions for the family and this holds true when for deciding whether to purchase the HMI. However, family members, especially women, can be influential

advocates for buying the HMI. As we have seen in some of the examples, one of the implications of this situation is that for families in which the head of household has migrated for work or is in the military reaching a decision about purchasing the insurance may take considerable time. The question is whether the enrollment period provides sufficient time for such households. Additionally, the findings support the notion that different marketing messages might be targeted to men and women to better reflect their various roles in decision-making.

## SUMMARY

Sales of the HMI in 2008, the first year that HMI was offered in Ghizar district, were reported to be lower than anticipated even though FMiA only fell a little short of their region-wide goal of 20,000 insured. This chapter examined the reasons for this from the perspectives of *access to* as well as *purchase of* the insurance. The study found that access, or the opportunity to buy the insurance, was limited by the HMI marketing territories, VO/WO eligibility and ineffective marketing communications. The marketing territories were defined by the operating areas of the registered LSOs that were recruited to sell and distribute the HMI. These territories covered only 34% of the Ghizar population. Awareness of the insurance was shaped by the HMI marketing program which started late and was found to be inconsistent across Ghizar. The eligibility of VOs and WOs to purchase the insurance depended on the level of demand for the HMI among the VO/WO membership. Access was assumed to be a key determinant in shaping the sales of the insurance. Our findings suggest that the demand for the HMI also shaped access to the product by affecting VO/WO eligibility.

The research found that small, middle class families with preexisting health problems, and a regular income earner were more likely to buy the insurance than other families. The data also showed that there may in fact be demand for the HMI among some market segments, for example military families, that had been regarded as unlikely prospects.

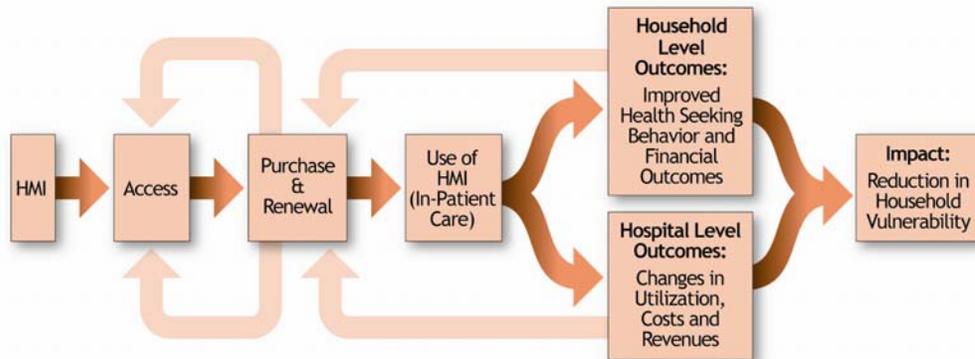
There is some evidence that purchase of the HMI was constrained by distrust in insurance but there was no clear indication that a lack of appreciation or understanding of insurance prevented anyone from buying the product. The main reason participants gave for not purchasing the insurance was a lack of affordability, particularly for the poor and those living in large, joint households. The enrollment data clearly illustrated that families living in remote parts of the district were less likely to have access or to purchase the insurance than other families. It is probable that this is because there was less HMI marketing in these areas while the population is poorer than average. More importantly, the cost of accessing health care is higher for these consumers, with transportation costs to reach medical care outstripping the costs of the care itself in some cases. Again this indicates that the value proposition of the HMI may well be lower for people in distant locations.

The research examined how households made the decision to purchase the HMI and found that the household head most often had the final word. However, the research also revealed that purchase of the insurance was sometimes a joint decision and that in most cases, women were strong advocates for purchasing the insurance. In some cases, women's savings in the WO provided funds for purchase.

The analyses presented in this chapter provided insight into the factors that influence the first two elements in the causal model for the HMI and how these elements interact. We found that the relationship between access and purchase is not one-way. Access limits who can purchase the insurance but purchase decisions also determine who ultimately gets access through the mechanism of VO/WO eligibility. This

suggests a causal model with a feedback loop from purchase to access that is based on the demand for insurance (see Figure 17).

**Figure 17: Revised Proposed Causal Model of Impact**



If present trends continue, the beneficial outcomes of the HMI will primarily be felt by the middle income, and possibly, the well-to-do groups, in the Northern Areas. Yet, the limitations in access that currently affect purchase decisions imply that even these socioeconomic groups are not able to purchase the product to the extent that they may wish to. Ultimately, this means that the desired outcomes of reduced household financial vulnerability and improved health-seeking behavior may not reach their full potential.



**View from the Road II, Ghizar District**

# IX. Conclusion

## A RECAP OF MAJOR FINDINGS

This report presents the baseline findings of the HMI Outcomes Assessment, which aims to evaluate whether and how AKAM's HMI program in the Northern Areas of Pakistan reduces household vulnerability to health risks. The report examined the environmental, cultural and health contexts in which the HMI was introduced, including the challenges presented by those contexts.

Generally, findings indicate that health concerns represent a critical financial risk to these households, which are relatively impoverished compared to households in other parts of Pakistan. Medical costs for major injury or illness can consume a substantial portion of a typical household's earnings in the area.

While government health care facilities provide care for free, Aga Khan Health Services, Pakistan (AKHSP) facilities are generally seen as offering better quality care. The rich can easily afford AKHSP facilities. For the middle and the poorer classes, cost is to varying degrees a barrier which may require depleting savings or borrowing, and the poorest only use the government facilities, of necessity. A particular strength of the AKHSP system are its MCH centers, which have a widespread presence in the Ghizer community and focus on areas neglected by the government health care system. At the same time, the small size and high utilization, of AKHSP hospitals raise questions about their capacity to meet the higher demand HMI policyholders are expected to generate.

The direct costs of hospital care (consultation, diagnosis, treatment and medication) are substantial for all users of the AKHSP system. However, those who live far from the major hospitals in Singhal and Gilgit incur extra expenses. First, they pay more in transportation to reach medical facilities in Singhal and Gilgit. Second, in the event of a serious illness, they may be referred to several health care providers before they receive the appropriate care. In contrast, those that live close to Singhal or Gilgit towns may go directly to the hospital for treatment of any condition.

Although people in Ghizar district have developed a number of financial coping strategies to address the risks they face, these are often inadequate and highly stressful. Savings are available for some, but they are typically insufficient to meet the need. Most often households borrow to cover immediate medical expenses, but borrowing options for the middle class and poor are limited.

While anyone who receives a salary can access loans from commercial banks, it is mainly the well-to-do who do so. The middle class tends to use a few microfinance banks and cooperatives, or informal sources, including moneylenders, family and friends. For the poor, informal providers often comprise their only resource. This reduces the amount of money they can obtain to cover a major health crisis and increases the costs of credit. If households have difficulty repaying their loans after a health crisis, the research has shown that they may sell productive assets or provide labor at low rates to remove the burden of debt. Such high-stress coping strategies can easily increase rather than reduce household vulnerability.

In sum, the situation would seem primed for an insurance program, especially one that allows middle and lower-income people to use nongovernmental health services. There are no other health insurance options available to the general public in Ghizar district, although a limited number of wage-earning workers have access to group

health insurance through their employer. Focus group discussion participants as well as key informants all agreed that the HMI has the potential to be extremely valuable.

Based on the information received from residents, the HMI can effectively protect families from most of the direct costs of one week of hospitalization at an AKHSP hospital or a much longer stay at a government hospital. The question of the *actual* effect of the HMI on out-of-pocket health care costs will be assessed in the endline report. Based on the baseline research findings, we suggest a modified set of indicators to be measured at the endline:

- Shorter delays in seeking hospital treatment;
- Switching to higher quality health care. For example, switching from using free government hospitals to using more fee-for-service facilities, such as AKHSP or other hospitals;
- More frequent use of hospitals;
- Increasing rate of attended hospital births.

A baseline view of the study populations' enrollment in the HMI suggests that, despite some desirability, relatively few people are buying it. Access and uptake have been constrained by a constellation of factors.

The main reason given for not purchasing the HMI was cost, particularly for those living in large or joint households. Findings also suggest that a lack of trust in insurance have helped create a reluctance to purchase the HMI. A large share of the population did not have the opportunity to purchase the HMI either because they lived outside of the HMI marketing territories or their VO/WO was ineligible. For others, access was effectively denied because they were unaware that the product was available. Marketing efforts were clearly uneven. Enrollment patterns clearly demonstrated that geography had a strong effect on the demand for the HMI, suggesting that it may be challenging to establish a viable hospital microinsurance product in sparsely populated areas where the costs of reaching the hospital can exceed the costs of services there.

## **TOWARDS A VALUE PROPOSITION OF THE HMI**

The value proposition of the HMI is the unique added value that it offers the consumer, or in other words its competitive advantage against options already available to the consumer. In this case, it boils down to a central question: to what extent does the HMI offer improved opportunity to gain access to more desirable health care, presumably leading to better health outcomes?

The answer is that the program offers considerable value in this area, but the value is unevenly distributed across the population. Generally, it will serve only the segment of the population that needs it and can afford it—that is to say, the middle-income group. The upper income group can afford it but does not need it; while the poor need it but cannot afford it.

Moreover, some sub-segments of the middle income will draw more value from the program than others. Factoring in the added costs of travel, the value may be considerably higher for families that live closer to the major hospitals. In addition, considering that the program only covers inpatient costs, the value will vary depending on the proportion of direct inpatient costs to total hospital-related costs. Finally, the value only applies to those who do not require specialized care outside of the Northern Areas.

AKAM has set out to protect families from falling into poverty as a result of catastrophic health care costs. Thus its target market is families living just above the poverty line. The impact of the HMI on these households could be significant in terms of the out-of-pocket savings for hospital care. The annual benefit limit per person at PRs. 25,000 (\$362.32) is equivalent to about three months of cash income for those at the lower end of the middle income group (i.e., PRs 6,000 per month [\$87.00]).

From the perspective of the family, however, the HMI is perceived by many to be costly. The purchase price for a family of five is PRs. 2,000 (\$28.99), which is equivalent to one-third of monthly cash income for families at the lower end of the middle income range. Some families in the area can afford this, but many cannot.

The HMI is valued by consumers for providing easy access to the highly regarded AKHSP health system and the CMH hospital. The AKHSP system is particularly in demand by women, for whom advantages include the presence of female doctors and the cashless feature. That enables women to take a family member to the hospital or MCH by themselves, even without a male relative who can pay the bill for them. These are services that a significant portion of the population may never be able to access without the opportunities provided by the HMI.

In terms of the care covered, the purpose of the HMI is to cover the large and mostly unpredictable costs associated with hospitalization that can unexpectedly plunge a family into a financial crisis. It will indeed do this effectively for many cases of major illness or injury requiring hospitalization.

But these are not the only kinds of medical costs faced by families. Most significantly, the HMI does not cover outpatient treatment. As shown in Chapter IX, the number of visits to local health facilities reported by families in Ghizar was surprisingly high.

In addition, the HMI does not cover the cost of transportation, which is often the first obstacle to obtaining health care for families. We have shown that in the remotest locations of Ghizar district, travel costs can be an absolute barrier. From Sandi, for example, private car hire for transportation to Gilgit costs PRs 4,000 (\$58) one-way—a significant amount for households there. Although public transportation is much cheaper, it may not be suitable for patients needing urgent care.

Based on data provided by Ghizar residents and taking into account indirect costs, we estimate the direct costs of in-patient treatment to be 42-68% of total costs related to hospitalization at the government's DHQ-Gilgit hospital, depending on the village of origin and type of transportation for the patient.<sup>16</sup> For treatment at AKHSP's Gilgit Medical Center, the range is 67-86%. In both cases, direct inpatient costs decline as a share of total costs as distance to a hospital increases. In sum, the HMI will cover an estimated 42-86% of hospital care depending on these variables.

HMI covers hospitalization only at health care providers in the Northern Areas. These facilities treat a wide range of major and minor conditions—indeed, most health issues a household in the area might face. But for specific serious diseases, such as cancer, patients can only find the necessary treatment at tertiary hospitals located in Islamabad or Karachi. Families in the Northern Areas reportedly will go to every effort, including going deeply into debt, in order to have their elderly relatives treated at facilities such as the Aga Khan University Hospital in Karachi.

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<sup>16</sup> Not including costs of medications.

## REVIEW OF POTENTIAL OUTCOMES OF THE HMI

### Policyholder Outcomes

This research has proposed that policyholders will experience positive health and financial outcomes from the use of the HMI insurance. Positive health outcomes will be assessed through proxies such as shorter delays before seeking health care and seeking care at higher quality health facilities. Financial outcomes are expected to include use of lower stress coping strategies and lower out-of-pocket costs for policyholder households when obtaining health care.

#### POSITIVE HEALTH OUTCOMES – QUALITY OF CARE

The Outcomes Assessment was designed to evaluate the proposition that the HMI will result in positive health outcomes for households through improved health-seeking behavior. One expected benefit of the insurance is the ability of those requiring medical attention to seek better quality care. The research team interviewed villagers and key informants about their perceptions of care at different health facilities. While this is not a definitive assessment of quality of care, responses triangulated from several different stakeholders were consistent. Key informants at AKHSP facilities identified the benefits of obtaining care at their facilities to include lower patient volumes as compared with public facilities and one-stop service, meaning that all lab tests, medical equipment and pharmaceuticals are available on-site. According to a senior medical officer at AKHSP Gilgit Medical Center (GMC):

*A doctor at GMC can see 25 patients during one all-day session. At DHQ-Gilgit, a doctor would see 100 patients during the same time. People who don't want to wait or who want a more thorough examination will come to GMC. Also GMC tries to provide all services under one umbrella.*

Consumer perspectives were discussed in some detail in Chapter VI. It was clear from that analysis that the average citizen prefers to go to AKHSP health centers if they can. As a result it is reasonable to expect that the demand for AKHSP facilities will increase as residents become insured with HMI. As discussed above, whether or not they can obtain quality care depends on the readiness of the health providers to handle a higher patient load. In all likelihood, policyholders requiring hospitalization will also seek care at the CMH Hospital in Gilgit as the AKHSP facilities reach full capacity. Lack of readiness at the hospitals or confusion over the insurance status of policyholders when they present themselves for care will impact patients' perception of quality of care and of the HMI's value. Additionally, capacity constraints at the hospitals and MCHs may hinder policyholder's ability to obtain timely care.

#### POSITIVE HEALTH OUTCOMES – SHORTER DELAYS IN SEEKING CARE

The ability to access health care faster is the second aspect of positive health outcomes for policyholders. There are several ways in which the insurance is believed to reduce delays in seeking care. Patients with insurance will not put off seeking hospital care in order to avoid the expense. Additionally, those who can access care on a cashless basis will not have to withdraw savings or borrow. As discussed, the HMI may be used on a cashless or reimbursement basis; delays are more likely to be reduced for those seeking cashless treatment at AKHSP facilities or the CMH Hospital.

In Ghizar district, people, especially the poor, tend to follow a referral system when seeking care. They seek care close to home first and then visit increasingly larger and better equipped facilities until they obtain effective treatment. Only in obvious emergencies will people go directly to one of the larger hospitals. How the purchase

of the HMI will influence this behavior is an open question. It would seem logical to assume that when an individual clearly needs hospital treatment, that person will go directly to the most appropriate hospital. However, a few FGD participants indicated that they believe they must follow a mandatory referral system in order to be treated, and in fact, AKAM is contemplating a referral system to prevent the AKHSP hospitals from becoming overburdened.

As this report shows, a mandatory referral system has the potential to increase costs significantly for patients who live far from the major hospitals. If such a system is imposed on policyholders, movement through the health care system will be slower for patients who might have gone directly to a hospital such as the Gilgit MC. Leaving aside the speed with which patients can obtain the required care in the health care system, it is probable that ill policyholders, rather than delaying treatment or self-medicated, will enter into the AKHSP health system more quickly than non-policyholders.

#### **POSITIVE FINANCIAL OUTCOMES – LOWER OUT-OF-POCKET HEALTH CARE EXPENDITURES**

The HMI Outcomes Assessment has proposed that households that use the HMI will have positive financial outcomes by means of improved risk management that in turn result in lower out-of-pocket costs for medical care. Our research has shown that Ghizar residents often resort to coping strategies such as borrowing cash or selling assets in order to manage the costs of hospital care because savings and current income are inadequate to meet the total need. These approaches are considered medium- to high-stress because they can leave households worse off and more vulnerable than before. The purchase of insurance, a proactive strategy that can provide benefits worth several times the annual premium is considered a low-stress coping mechanism because it diminishes household vulnerability.

#### **Health Facility Outcomes**

The Outcomes Assessment will evaluate whether the implementation of the HMI has positive outcomes at participating AKHSP health facilities. Positive outcomes would include improved quality and increased quantity of medical care. The baseline research collected data on current utilization and pricing at AKHSP facilities. This suggested that some facilities had little excess capacity. The endline research will investigate whether care has improved by examining changes in staffing levels, services offered, and patient capacity as measured by total number of beds.

The intent of the endline Outcomes Assessment is to document changes in the populations' health risk management and health-seeking behavior. It will repeat the three qualitative studies that comprise the baseline research with similar respondents and it will also incorporate additional analyses of policyholder satisfaction with the HMI. In addition, the research will examine changes in the makeup of the health care and financial landscapes – developments that may correlate with the introduction of the HMI. The expectation is that the results will contribute significantly to the learning agenda of BMGF and the field of microinsurance in general. The endline research had not been scheduled at the time of this report's publication.

The next and final chapter presents lessons learned from the baseline for AKAM and the industry.

# X. Emerging Lessons

## EMERGING LESSONS FOR AKAM AND FMIA

The HMI implementation in Ghizar in 2008 was a time of organizing, refining and rolling out multiple components of the new health insurance innovation. It was also a learning experience marked by successes and challenges, which offers many opportunities to learn how a health insurance program can be effectively marketed, implemented and administered. The lessons learned in Ghizar are relevant to FMiA's program throughout the Northern Areas. As AKAM had anticipated, despite the relative poverty and isolation of the region, many of the communities in Ghizar where the HMI was marketed were quite receptive to the new health insurance product. There is wide recognition that AKHSP facilities offer high quality services. The large Ismaili population in this area is predisposed to the product because it is affiliated with their religious leader, the Aga Khan. Furthermore, AKAM and FMiA have been able to leverage the existing networks of Aga Khan sponsored organizations, including the AKRSP community development program and the well-known AKHSP network of hospitals and MCHs in introducing the product to these communities. Overall, stakeholder groups appear to embrace the concept of health insurance and are optimistic about the benefits they anticipate with implementation of the HMI. At the same time, health facility staff have also expressed concern about anticipated increases in patient volume and workload at AKHSP facilities, and the ability of the provider network to accommodate the increased demand the HMI is expected to generate.

The HMI roll-out in 2008 highlighted successes as well as challenges in the areas of marketing and distribution, demand for the product, loss control and program administration. The experience also pointed to stakeholder relations and communications as an area requiring attention as the program goes forward.

### **Marketing, Sales and Distribution**

In 2008, the FMiA operations in the Northern Areas consisted of a lean office that relied on semi-volunteer, grassroots community groups to serve as the distribution channels for the roll-out of the HMI to local consumers. This arrangement, intended to hold down marketing, sales and distribution costs, resulted in several challenges for HMI implementation. These included uneven marketing and inconsistent messages relayed to the consumer market; limited geographic outreach due to an insufficient number of LSO partners; limited outreach in the marketing territories due to reliance on labor-intensive marketing methods; and questionable enforcement of eligibility criteria.

These challenges could be addressed as follow:

- The grassroots marketing could be augmented with a mass-market campaign using TV, radio and possibly newspapers. FMiA has stated their interest in working with additional marketing partners such as the local health boards and the AKHSP MCHs. Keeping these stakeholders educated and informed is especially important because local residents often seek out these organizations for health-related information and advice according to the FMiA supervisor.
- The evidence suggests that more investment in marketing and distribution is needed, especially in the first years of insurance implementation. The LSOs, and to a lesser extent VO and WO, required more support to carry out their marketing and distribution activities while FMiA needs to have a deeper level of

engagement with these partners. Some of the marketing partners need a better understanding of the insurance product and how it works, others require better financial incentives to do the laborious marketing and sales work.

- New partners who can legally serve as HMI group policyholders are essential if the marketing territories are to be expanded to extend access to the entire Ghizar population. This may require the transformation of unregistered LSOs into legally recognized entities. It could also entail finding new types of partners such as microfinance banks or cooperatives, which could serve as distribution channels.

### **Demand for the HMI**

The research on access and purchase provided rich information on the consumer market. The market data gleaned from this fieldwork identified a number of distinct and sometimes surprising market segments for the HMI in Ghizar district. These include families of government workers, military personnel, and AKDN-employees. These findings suggest that there is demand for the HMI from unexpected quarters and that the market for the product may be larger than imagined. The findings also raise the possibility of calibrating marketing messages to attract different kinds of customers and customizing marketing techniques to reach different market segments. Finally, there may be opportunities to tailor the HMI product to different market segments once the overall market has grown sufficiently.

The research also indicated that lack of affordability was the most significant barrier to purchasing the insurance. Two areas require further investigation in order to assess whether the HMI could be more affordable for families at existing income levels: (1) Are marketing and enrollment taking place during the time of the year when households have the most disposable income; and (2) Are the size and frequency of premium payments as customer-friendly as they can be, given the price of the HMI?

FMiA should consider selling the HMI through a series of smaller installment payments rather than one lump sum premium payment. How frequently premium installments should be made—annually, quarterly or on a yet-to-be-determined schedule -- requires further evaluation. Additionally, FMiA could consider providing sliding scale discounts for children's premiums. That is, the more children that are enrolled within one family, the deeper the discount for each additional child. This would encourage larger families to enroll.

Finally, there was evidence that some families who can afford the HMI did not purchase it in 2008 due to a lack of trust or understanding of the insurance. Awareness of health insurance concepts and the HMI program is critical to program success among all community stakeholders. Efforts to promote community awareness should continue in order to increase product demand. However, the demonstration effect of the insurance itself will prove to be a vital marketing tool and important determinant of demand.

### **Loss Control and Program Viability**

Loss minimization through claims controls is an important part of any insurance business model. The commercial viability of the HMI program requires that this product achieve profitability within a reasonable amount of time, and FMiA has designed the HMI product and procedures in order to ensure that losses due to claims do not exceed income from premiums.

FMiA weighed loss controls against product features which make the product more attractive to the market. These attractive features include cover for maternity, preexisting conditions, newborns and the elderly. The eligibility criteria, discussed above, were designed into the product in order to control for adverse selection. The research found that the eligibility requirements were modified during the enrollment period boosting insurance sales but possibly allowing a higher than manageable level of adverse selection.

The finding that the size of the average family enrolling in the HMI was much smaller than projected indicates that the wrong features were in place to ensure that entire families signed up. The issue is important enough to warrant extra scrutiny as it relates directly to product viability through both the risk of losses due to adverse selection and in terms of lower income earned per family unit. Closer oversight and involvement of FMiA with the LSOs may be needed to ensure that the eligibility criteria are being strictly adhered to.

Early reports from AKAM show higher-than-expected utilization by initial HMI enrollees. AKAM and FMiA are monitoring these trends to better understand their origin, whether it is a result of adverse selection as households in need of services join the risk pool, “woodwork effects” where non-urgent conditions that would otherwise go untreated are addressed, or other considerations including product design. By allowing coverage of preexisting conditions, the HMI program may be feeling the impact of a pent-up demand for health care.

Site visit interviews revealed a lack of concurrence among respondents about the enrollment numbers needed to sustain the HMI product. Policy renewals are necessary to maintain and expand the community risk pool needed to achieve HMI financial viability. Strong renewal rates also provide protection to the insurer, NJL, against expected high utilization following enrollment due to adverse selection. Future research will look at the renewal rates in Ghizar district and explore customer satisfaction with the HMI.

### **HMI Program Administration**

Administrative policies and procedures provide the essential foundation for program operations, and often pose unique challenges for new programs and initiatives at start up. As the HMI was rolled out numerous challenges with program operations, administrative processes and infrastructure were encountered and were reportedly being addressed by FMiA officials and staff who had identified these issues during interviews. Lack of leadership at the local level, when FMiA was without a local supervisor during the summer 2008, also contributed to early challenges during the HMI roll out in Ghizar district.

Health Microinsurance program operations, administrative processes and infrastructure have been confusing and overly complex and need to be simplified. Marketing and enrollment processes (discussed previously) emerged as particular problem areas. Roles, responsibilities and capabilities of staff and FMiA administrative offices also need review and clarification as the HMI continues to evolve.

The research team encountered conflicting information about many aspects of the HMI from different offices, agencies and locales within the Aga Khan organizations. Local FMiA representatives rely on services and support from AKHSP, AKRSP, FMiA headquarters in Karachi and AKAM in Geneva. Coordination and timeliness are logistically challenging in this context, and have at times been obstacles to program administration and efficiency.

Interviews with stakeholders identified disorganization and a lack of coordination and clarity about roles and responsibilities involving all stakeholder groups. Particular problems emerged in gaining cooperation and providing training and oversight of LSOs responsible for marketing and enrollment, including coordinating registration hours at village offices and issuing identification cards to enrolled policyholders to enable access to participating facilities. Hospital and MCH respondents described varied levels of readiness planning and preparation for the HMI, ranging from none to efforts involving many staff.

### **Stakeholder Relations**

Perceptions of stakeholders—patients doctors, other health-care providers and administrators, district authorities and community leaders—are all important to implementation as well as its future. Stakeholder perceptions suggest interest and some conceptual understanding of the HMI but also a lack of in-depth familiarity with the product. The “honeymoon period” of the HMI introduction to the Gilgit and Ghizar district markets will quickly give over to a critical eye on performance, value and benefit to stakeholders.

Managing stakeholder expectations is an important element of communications. Stakeholder expectations for the HMI product at roll-out were found to be high. Stakeholders anticipated improved access to health care and better health status for low-income and poor individuals, improvements to provider facilities and quality of services, bad debt reduction and less concern about cost recovery among AKHSP providers. While these outcomes are desirable and may be achieved to some degree, they also depend on enrollment and utilization experience, the allocation of resources, as well as the capabilities of the HMI administrative and provider networks to deliver services that meet patients’ and providers’ expectations.

Addressing the areas of connection and disconnection in stakeholder expectations will help ensure smooth expansion and future implementation of the HMI. For example, most respondents stated that they expect the HMI to benefit poor households while the LSO key informants reported that most enrollees are middle income families. This is what FMiA and AKAM – but perhaps not what the community -- had expected.

FMiA can play an important in role shaping perceptions by identifying and addressing stakeholders’ concerns about the program, improving communication with stakeholder groups, and providing timely feedback about program progress and changes as HMI marketing, enrollment and expansion continue.

### **LESSONS FOR THE MICROINSURANCE INDUSTRY**

The microinsurance industry is still nascent and microinsurance providers are searching for cost-effective solutions for efficient distribution, information management, and performance monitoring systems. At the same time, they are trying to establish viable business models that can provide cost-effective insurance to the low-income market. This research focused on the people and institutions that are most likely to benefit from FMiA’s Health Microinsurance program in Pakistan, but the findings provide lessons learned for the microinsurance field in general. The findings also highlight some of the challenges of implementing commercially-viable, voluntary health microinsurance.

The research indicates that implementing health microinsurance in an area with low population density and high transportation costs poses significant challenges. Covering transportation costs would increase the value proposition of the insurance for policyholders who live far from major health facilities and thus would increase the

demand in these areas. However, equalizing the value proposition across all policyholders would most likely lead to increased costs for all. This is an issue that requires further investigation as it speaks directly to the question of who benefits from microinsurance.

In launching a new microinsurance product, one of the key challenges is determining the marketing and distribution systems as well as the appropriate level of investment in both. Determining the initial investment amount for marketing and distribution is akin to the chicken-and-egg problem. Management is reluctant to invest too much in this area during the launch of the insurance because they fear they will have too few policyholders in the early years over which to spread the costs. Yet, if they do not spend sufficiently on marketing and distribution, they will never achieve the numbers of policyholders in the time necessary to prove viability. The early evidence from Ghizar district suggests that more investment was needed. This is an area where donor support could be deployed in a smart way – to underwrite marketing expenses during a defined period of time in order to quickly and effectively catch the attention of consumers. At the same time, it was clear that some segments of the market are waiting to see what happens. This is likely to be true in other places where health microinsurance is introduced for the first time indicating that microinsurance managers need to be patient as it will take time to develop the market.

With voluntary insurance, it is imperative to get the marketing and enrollment right. Incentives have to be sufficient to effectively motivate the marketers within various distribution channels. Mass media marketing can take the burden off community-based promoters and sales forces while reaching larger audiences. Microinsurance managers should capitalize on the goodwill that exists in the community toward any of the institutions involved in the implementation or delivery of the microinsurance in order to help build the brand.

Additionally, due to general mistrust of insurance products and institutions, trust building remains an important objective for microinsurance providers even when they work through known and trusted local organizations. In the case of FMiA and AKAM, they can do more to build on the already strong brand of the AKDN agencies to increase the trust in their HMI product. The timing and duration of marketing should take into consideration the preferences of the target population for receiving information and spending cash.

Marketing microinsurance is easier where both appreciation and understanding of insurance is strong. Faced with low uptake of a product, it may be worth exploring a two-pronged approach to consumer education. First, social marketing techniques could be adapted to health microinsurance to increase the knowledge and awareness of insurance and its benefits among the general public. Second, financial education using more traditional delivery methods can instill more in-depth comprehension of insurance. However, a cost-effective and manageable approach is also needed. In the case of the HMI, it was not clear that a lack of insurance understanding was holding back enrollment rather a lack of awareness was believed to have dampened demand. To increase awareness and appreciation of the product, financial education could be targeted at key persons such as the community leaders and activists that promote and sell the product, key opinion leaders and local health advocates. Better informed community leaders will be better positioned to disseminate reliable information about insurance in general and specific information on the product and how it works.

The lessons learned from this one-year pilot test in the Northern Areas of Pakistan were not yet in when the program was rolled out in year two. This suggests that for insurance policies with a one-year duration, a two-year pilot test period would be more useful. This would allow management to analyze one full year of financial results, to absorb the lessons learned from the renewals/nonrenewals in the second

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Clearly, some segments of the market are waiting to see what happens. This is likely to be true in other places where health microinsurance is introduced for the first time indicating that microinsurance managers need to be patient as it will take time to develop the market.

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For insurance policies with one-year duration, a two-year pilot test period would be more effective.

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year, and to correct any problems with program systems before the insurance is rolled out on a larger scale.

Health insurance, including the HMI program, relies on the cooperation and collaboration of several institutions: hospitals, other health-care providers, community-based health advocates, community development organizations, insurance companies, and often microinsurance agencies or third-party administrators. The implementation of health insurance is a balancing act that weighs the interests of diverse players. The proponents of a health microinsurance program must carefully manage the expectations of all stakeholders to maintain support for the program. Unmet expectations of any party may lead them to withdraw their participation, which in turn could destabilize the program as a whole.

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# Annexes

## **Annex 1—Previous Studies**

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## **Annex 2 – Chapter III**

### **Outcomes**

#### **Household-level outcomes.**

Poor health has a negative impact on low-income households in two respects—their financial and health status. In terms of financial effects, medical expenditures are an additional burden to already constrained household budgets. If a household does not have sufficient funds on hand to purchase health care, they have few options. They can avoid or delay getting medical care, draw down their savings, borrow money, sell assets or work more to earn extra income. If the medical condition is serious and requires immediate attention, households have a narrower set of options. When the household breadwinner cannot work, household productivity and income decline. This puts a double burden on the household; household income is lower just as there is a demand for higher expenditures. Borrowing money or selling household assets, particularly productive assets, to pay for health shocks can leave households worse off through claims on future income or a reduction in income earning capacity, respectively. Coping strategies such as these that leave households worse off are considered “high-stress strategies.” Illness negatively affects low-income households and increases their vulnerability when they resort to using high stress risk coping mechanisms. Health insurance can mitigate the negative impacts of sickness on poor households by reducing the cost of medical care.

When households experience a health shock, the financial and health effects can reinforce each other. Households who cannot afford health care will avoid or delay seeking medical treatment. This often results in the condition worsening and may result in a long-term or permanent decline in health. It can also necessitate more intensive and expensive treatment than the original ailment required. Health insurance can prevent this downward spiral by allowing policyholders to seek medical care as soon as they realize that they are ill.

#### **Hospital-level outcomes.**

At the hospital level, increased demand for hospital care can have several effects. Not only is overall volume of use expected to increase, but preferences for hospitals may shift. Changes in hospital status are expected to come about as volumes of hospital care adjust, services shift between outpatient and inpatient treatment, and patterns of treatment change. The availability of hospital services for uninsured households may also adjust due to changes in access and cost, leading to changes in hospital use by non-policyholders. The quantity and quality of health-care will change affecting policyholders and non-policyholders alike. The changes experienced by non-policyholders are spillover effects.

The HMI is a commercial insurance product. The policyholder premiums are paid directly to the insurance company, which in turn reimburses the AKHSP and CMH hospitals based on negotiated prices of treatments provided. Formal agreements between FMiA, the insurance company, and the AKHSP and CMH health-care systems have allowed for comprehensive cost and fraud control systems. Treatment and price protocols are in place to control for over-prescription, unnecessary procedures and excessive consultations. These are intended to incentivize the hospitals to work efficiently. Policyholder ID cards or

smart cards (see table A-1 below) are used to identify the insured and track their treatment and personal data. In combination with FMiA gatekeepers at each hospital, these are intended to efficiently control claims. The overall direction of the changes in costs and revenues at AKHSP and CMH hospitals cannot be predicted. While increased hospital usage should enhance hospital revenue, net revenue will depend on the extent of downward pressure on costs per treatment experienced by the hospital.

Hospital outcomes in terms of quality of care will be examined in this Outcomes Assessment. Evidence from industrialized countries suggests that health-care providers purposely adjust treatment within an acceptable range in order to keep costs low (Dor & Farley, 1996, as cited in Schneider, 2007). There remains a fear that when the financial risk of insurance is placed on the hospitals, providers could lower treatment to medically unacceptable levels. Positive changes in the indicators of the quality and quantity of hospital care would therefore indicate the potential for better health and financial outcomes for patients. Increases in the quality of health care will increase the “value for money” of the HMI for the policyholder and of hospital treatment for the uninsured. This may also result in increased demand for the insurance.

**Table A- 1**

***HMI Management Information System Data Elements, November 2008***

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**Policyholder ID:** ID number, name, date of birth, National ID Card Number (NIC), Relationship to policy purchaser

**Patient Information:** Profile number – card number

Admission date  
Treatment authorization number  
Treatment department  
Member name  
Member ID number  
In-take profile number  
Hospital  
Treatment department  
Doctor(s)  
Diagnosis  
Product details - all illness-related charges  
Drugs/medicines  
Procedure charges  
Bed charges  
Everything they use and need  
Labs/exams (investigations)  
Procedures  
Charges

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**Table A- 2**

**Key Research Questions Addressed by this Study Organized by Theme and Source of Information**

Theme:- Source:	Risk-Managing Behavior	Health-Seeking Behavior	Access and Purchase
<b>Demand Side: Demand Study</b>	<p>What are the existing risk management coping strategies (ex ante and ex post) used by the population for health and other large shocks?</p> <p>What are the preferences of households for these risk-management strategies, and how do households select from among the available choices? What market segments access and use each risk-management strategy and why?</p> <p>What market segments access which formal and informal financial services and why?</p> <p>What are the transaction costs for households to access and use each of the available risk-management strategies?</p>	<p>What are the existing health-care-seeking behaviors of the target population</p> <p>What are the common health problems that cause the target market to seek healthcare? To seek hospitalization?</p> <p>What factors determine preferences for different hospitals, and do these preferences change over time? For different health care providers?</p> <p>What market segments access which health care providers and why?</p> <p>What are the direct costs associated with using different kinds of health service providers, including in-patient treatment?</p> <p>What are the transactions costs for households to access and use the available health care services, including hospitals?</p>	<p>Does the target population know about the insurance?</p> <p>Do they understand the features of the product and how to use it?</p> <p>What factors contribute to household decisions to purchase insurance? Income level of household, household income per capita, gender of head of household, age of head of household, size of household, ethnicity, education, location of household vis a vis healthcare services, affordability, etc.</p> <p>Who makes the decision within the household to purchase the insurance?</p>
<b>Supply Side: Financial Services Study, Hospital Study</b>	<p>What is the existing financial landscape with respect to financial management of health risks?</p> <p>What is the range of financial risk management strategies available to households facing health shocks that require hospitalization?</p> <p>Who are the significant providers of formal and informal risk-management products in the market?</p> <p>What are the terms and conditions of these products and services?</p> <p>What factors influence eligibility and govern access to these financial services and products?</p>	<p>What is the existing healthcare landscape?</p> <p>What are the healthcare facilities and services available and accessible to the target market?</p> <p>What are the factors that govern access to healthcare facilities?</p> <p>What are the most common diseases or illnesses for which people seek treatment?</p> <p>What is the current utilization of available health care providers (HCPs)?</p> <p>What are the costs and revenues associated with the current utilization levels at the HCPs?</p>	<p>What is the current status of the HMI product including marketing, sales, administration and claims processing systems?</p> <p>Where is HMI being offered?</p> <p>What health care facilities are covered?</p>

**Table A- 3*****Demand Study Household Sample: Showing Total Numbers of FGD Groups and Participants***

	Near LSO				Far LSOs				Total Participants	Total Groups
	Eligible VO/WOs		Ineligible VO/WOs		Eligible VO/WOs		Ineligible VO/WOs			
Research Tool	Policy-holders	Eligible Uninsured	Policy-seekers	Ineligible Uninsured	Policy-holders	Eligible Uninsured	Policy-seekers	Ineligible Uninsured		
FGD 1	1 (3W 7M)	1 (7W 1M)	1 (5W 5M)	1 (8M)	1 (6W 3M)	1 (4W 3M)	2 (4W 2M) (3W 4M)		65	8
FGD 2	1 (8W 2M)	1 (5W 1M)	1 (6W)	1 (5W 4M)	2 (3W 4M) (8W 3M)		1 (6W 1M)	1 (6W 2M)	64	8
FGD 3 - Women	1 (8)	1 (10)	1 (8)	1 (9)		2 (8) (8)	1 (8)	1 (6)	65	8
FGD 3 - Men	1(7)	1 (8)	1 (5)	1 (5)		2 (3) (5)		2 (8) (8)	49	8
<b>Total Groups</b>	4	4	4	4	3	5	4	4		32
<b>Total Participants in All FGDs</b>	35	32	29	31	27	31	28	30	243	
<b>Total Participants by Eligibility Category</b>	67		60		58		58		243	
<b>Total Participants by Location Category</b>	127				116				243	

Note: W=number of women; M=number of men

**Table A- 4*****Demand Study Key Informant Sample***

Sample Category	Near LSO	Far LSOs	
Tehsil	Punial	Yasin	Gupis
Key Informant	Manager of Sangam LSO	Manager of Al Karim Development Organization	Manager of Gupis Rural Support Programme

**Table A- 5*****Financial Services Study: Sample of Organizations Interviewed***

Formal Sector			Semi-formal	Informal			LSOs
Commercial Banks	Cooperatives	Microfinance Banks	Cooperative Societies	Village Organization Name (village)	Women's Organization Name (village)	Other Name (village)	Name (village)
National Bank of Pakistan United Bank Ltd Habib Bank Ltd Soneri Bank Ltd Bank Alfalah Ltd Allied Bank Muslim Commercial Bank Zarai Tariqati Bank (State owned agricultural development bank)	Karakorum Cooperative Bank	First Microfinance Bank	Al Jinnah Society Al Rahim Cooperative Society	Majini Mohalla, (Hatoon) Amphary (Sherqila) Balhunz Pain Kouchdeh Pain Taus Parveen Terch, (Harkush) Gupis Bala, (Gupis) Serbal Bala, (Phander)	Golodass I Rahimabad Rashmal I, (Sherqila) Imit Center Chatorkhand Pain I Educated WO (Sandi) Khonande, (Harkush) Khonakoi, (Jhandrot)	Women's Market Management Committee (Chatorkhand) Women's Market Management Committee (Taus) 2 moneylenders	Sangum (Hatoon) Kuramber (Imit) Chatorkhand (Chatorkhand) Al Karim (Taus) Shandur (Teru) Gupis Rural Support Program (Gupis)

Note: Where commercial banks had branches in both Gilgit and Ghizar, both were included in our sample.

**Table A- 6*****Health Facilities in Study Location: Indicating Those Covered by HMI and Those Included in the Hospital Study by Tehsil***

Tehsil	Hospitals	Covered by HMI	Included in Study Sample
<b>Gilgit town</b>	Gilgit Medical Center	✓	✓
	District Headquarters Hospital- Gilgit	✓	
	Combined Military Hospital	✓	
<b>Punial</b>	Singhal Medical Center	✓	✓
	District Headquarters Hospital- Gakuch	✓	✓
	Singhal Civil Hospital		
<b>Ishkoman</b>	Chatorkhand Civil Hospital		
<b>Yasin</b>	Yasin Civil Hospital		
<b>Gupis</b>	Gupis Extended Family Health Center	✓	✓
	Gupis Civil Hospital		✓

**Table A- 7*****List of AKHSP MCHs Indicating Those Covered by HMI and Those Included in the Hospital Study by Tehsil***

Tehsil	MCHs	Covered by HMI	Included in Study Sample
<b>Punial</b>	Sherqilla	✓	✓
	Singhal	✓	
	Gakuch	✓	✓
<b>Ishkoman</b>	Chatorkhand	✓	✓
	Imit	✓	✓
	Faizabad		
<b>Yasin</b>	Hundur	✓	✓
	Sandi	✓	✓
	Yasin Proper	✓	✓
	Thoi	✓	
<b>Gupis</b>	Sumal	✓	
	Pingal	✓	✓
	Jandrote	✓	✓
	Herkush	✓	
	Phunder	✓	

**Table A- 8**

***Hospital Study Sample: List of Key Informant Organizations Interviewed by Location***

<b>Organizations</b>	<b>Location</b>
AKHSP Regional Office	Gilgit
Regional Health Boards	Punial/Ishkomen Yasin/Gupis
Local Health Boards	Gilgit Sherqila Singhal Gakuch Imit Pingal

### Annex 3–Chapter V

**Table A- 9**

***AKHSP HEALTH Facilities in the Ghizar District, 2008***

Tehsil	Village	Medical Facility	Medical Facility Type	Level	Year Established	No. of Beds	No. of Staff
Gupis	Gupis	Extended Family Health Centre, Gupis	EFH Centre	Secondary	2000	10	18
Singal	Singal	Aga Khan Medical Centre, Singal*	Medical Centre	Secondary	1992	22	29
Gupis	Jandrote	Aga Khan Health Centre, Jandrote	MCH Centre	Primary	1978	2	4
Gupis	Phander	Aga Khan Health Centre, Phander	MCH Centre	Primary	1993	2	4
Gupis	Pingal	Aga Khan Health Centre, Pingal	MCH Centre	Primary	1990	2	4
Gupis	Herkush	Aga Khan Health Centre, Herkush	MCH Centre	Primary	1992	2	4
Gupis	Sumal	Aga Khan Health Centre, Sumal	MCH Centre	Primary	2001	2	4
Ishkome n	Immit	Aga Khan Health Centre, Immit	MCH Centre	Primary	1992	2	4
Ishkome n	Chatorkhand	Aga Khan Health Centre, Chatorkhand	MCH Centre	Primary	1983	2	4
Ishkome n	Faizabad	Aga Khan Health Centre, Faizabad	MCH Centre	Primary	1990	2	4
Singal	Sherqilla	Aga Khan Health Centre, Sherqilla	MCH Centre	Primary	1985	2	4
Singal	Gakuch	Aga Khan Health Centre, Gakuch	MCH Centre	Primary	1979	2	4
Yasin	Thoi	Aga Khan Health Centre, Thoi	MCH Centre	Primary	1985	2	4
Yasin	Sandi	Aga Khan Health Centre, Sandi	MCH Centre	Primary	1996	2	4
Yasin	Hundur	Aga Khan Health Centre, Hundur	MCH Centre	Primary	1988	2	4
Yasin	Yasin	Aga Khan Health Centre, Yasin	MCH Centre	Primary	1978	2	4

Source: FMiA, 2008.

## Annex 4—Chapter VIII

**Table A- 10: Details of HMI Enrollment in Ghizar District, By LSO, 2008**

LSO	Total VO/WOs	Total Households	Total Population	50% Threshold (# hhds)	Eligible VO/WOs	Enrolled Families	% Families	Enrolled Persons	% Persons
Al-Karim	19	931	8,905	466	7	132	14%	457	5%
Gupis Rural Support Programme	14	718	6,227	359	11	269	37%	802	13%
Sungum	16	1,219	9,598	610	15	693	57%	2,563	27%
Chatorkhand	18	678	5,876	339	18	388	57%	1,428	24%
Karamber	20	794	6,569	397	1	37	5%	166	3%
Shundur	16	784	6,725	392	2	43	5%	135	2%
<b>Total</b>	<b>103</b>	<b>5,124</b>	<b>43,900</b>	<b>2,563</b>	<b>54</b>	<b>1,562</b>	<b>NA</b>	<b>5,551</b>	<b>13%</b>

Source: FMiA. 2009.

## **Annex 5—Transaction Costs of Accessing Financial Services**

An important aspect of borrowing money is the full costs associated with obtaining a loan. These include direct costs, such as processing fees and interest, as well as transaction costs such as transportation. Table A-11 indicates these costs from a consumer perspective, which was aggregated from eight focus group discussions with Gilgit district residents.

As transportation costs were already discussed earlier in relation to hospital transaction costs (see Chapter III), they will not be covered in detail here. But it is important to note that in most cases people either walk or take public transportation to reach their financial service providers. Formal providers are primarily located in larger towns such as Gakuch and Gilgit, resulting in expensive transportation costs, especially for those who live in the far areas of Gupis and Yasin *tehsils*. And this becomes extremely expensive in the case of formal financial institutions that require multiple visits before a loan will be available. In the case of emergency loans, transportation may not be an issue if the ill family member is already hospitalized in one of the large towns.

Along with transportation, participants indicated a range of other expenses that are associated with obtaining a loan. In the case of informal providers, who are the main source of emergency loans, there are no costs, nor interest. The information provided by participants regarding the lack of interest charged by shopkeepers conflicts with that provided by key informants. It is likely that the latter is a better source of information on this, especially as shopkeepers were among the sources. As indicated above, semi-formal and formal institutions all charge interest, which consumers reported as ranging from 12 to 25 percent depending on the institution. This is consistent with the information from financial services informants.

In addition to interest, using a formal financial service incurs other expenses associated with loans including the cost of photocopying documents and paying for official stamps. In the case of the National Bank of Pakistan, participants also indicated that before they can access a loan, they must pay bribes to a number of different people—such as officials who assess the value of land that may be used for collateral. The result is that these additional costs add up to very expensive loans from semi-formal and formal financial service providers. Thus, the poor are unlikely, or simply unable to, obtain loans from these providers. Lack of access to these financial institutions limits low-income people's resources for coping with a major health crisis.

**Table A- 11**  
**Financial Services Transaction Costs**

Financial Service Provider	FSP Location	Services Provided	Interest Rate (%)	Description of Other Expenses	Total Other Costs PRs. USD \$	Total Real Cost* PRs. USD \$
<b>Relatives</b>	in village	small emergency loans PRs. 500-5,000 \$7.25-72.50	none	None	PRs. 0 \$0.00	PRs. 0 \$0.00
<b>Shopkeepers</b>	Jhandrot	small individual loans PRs. 500-3,000 \$7.25-43.48	none	None	PRs. 0 \$0.00	PRs. 0 \$0.00
<b>VO/WOs</b>	in village	savings & small individual loans PRs. 1,000-100,000 \$14.50-1,450.00	12-22%	none, but must be member	PRs. 0 \$0.00	PRs. 0 \$0.00
<b>Cooperative Societies</b>	Taus, Gakuch, Shergila	savings & individual loans (size of loans depends on shares owned PRs. 10,000 (\$145.00) in shares = PRs. 30,000 (\$435.00) in loans)	14%	photocopies & stamp	PRs. 100-150 \$1.45-2.17	PRs. 100-150 \$1.45-2.17
<b>First Microfinance Bank</b>	Taus, Gupis, Gakuch	savings & group loans max= PRs. 100,000 \$1,450.00	22-24%	photocopies & stamp	PRs. 500-700 \$7.25-10.14 - for whole group	PRs. 500-700 \$7.25-10.14
<b>Karakorum Cooperative Bank</b>	Gupis & Gakuch	individual savings & loans (size depends on amount of savings) PRs. 25,000-500,000 \$362.00-725.00	19-24%	photocopies, stamp, property, open account for 1 year, lunch each visit	PRs. 100-800 (\$1.45-11.60) +lunch (PRs. 250 (\$3.62)) for average number of visits)	PRs. 100-1050 \$1.45-15.22
<b>National Bank of Pakistan</b>	Gupis	individual loans & savings	13-14%	for every PRs. 100,000 (\$1450.00) borrowed, must spend money for the agent, stamps, property inspection & bribes	agent=PRs. 10,000 (\$145.00) stamps=PRs. 1000 (\$14.50) inspection=PRs. 500 (\$7.25) Tehsil Dar=PRs. 350 (\$5.07) Asst. Commissioner=PRs. 500 (\$7.25)	PRs. 12,350 \$179.00
<b>Habib Bank</b>	Gakuch	loans	n/a	n/a	PRs. 500-600 \$7.25-8.70	PRs. 500-600 \$7.25-8.70
<b>Zarai Tariqiati Bank</b>	Gakuch	loans	n/a	estimation of property value for mortgage (bribes)	PRs. 1200-1500 \$17.39-21.74	PRs. 1200-1500 \$17.39-21.74

\*Excluding transportation & other incidentals