

A Pilot Study on Risk Profiling for Micro insurance
Initiative in Rajasthan

By



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Jaipur

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1. Executive Summary

Poor face a lot of risk and their vulnerability to these risks is higher as against the economically stronger section of the society. Micro insurance is one of the methods of providing economic as well as psychological security to poor against poverty by reducing exposure to multiple risks and cushioning the impact of disaster. In order to explore the various possibilities for adoption of microfinance by community, Non governmental organizations and MFIs in Rajasthan, CmF initiated a pilot study in five districts of Rajasthan. CmF partnered with five organizations for the study. The organizations were 2 federations of Ibtada in Alwar, Sangharsh Mahila Manch and Savera Mahila Manch, Grameen Shiksha Evam Vikas Samiti (GSVS) in Ajmer, Grameen Mahila Vikas Sansthan (GMVS) in Ajmer and Navachar Sansthan in Chittorgarh. The methodology of the study involved a sample survey of rural and urban households.

The major objectives of the study involved risk profiling of the community and risk prioritization according to their needs. The study also aimed at providing suggestions for product design based on the findings.

Amongst various risks identified, health was found to be a major risk to the rural and urban poor. 43% of the total respondents reported health risks in last three years. 90% of the health risk was due to hospitalization for chronic illnesses and rest was due to accidents. It was found that the expenditure on availing medical services was nearly equivalent for the rural as well as urban poor; with both having a ratio of approximately 9:1 for medical expenditure and travel. The average annual household expenditure on curtailing health risks varied between Rs1700-Rs16500.

Apart from health, the rural poor also face significant loss to occupation due to risks of crop failure and livestock death and illness. As high as 69% of the rural households reported crop loss in last three years and 57.3% reported animal death and 31.6% animal illness. The loss due to crop failure accounted for nearly 20% of the household income. However, despite their significant impact on the household economy, they are rarely recognized by the poor as significant risks. The most articulated risks by the poor were loss of life of earning member and illness of earning member. In line with this the demand for life insurance products was also found to be highest amongst the respondents. Amongst the respondent population only 208 people were enrolled in life insurance schemes, 4 households reported crop insurance, 1 animal insurance and 2 asset insurance. As compared to enrolment, the demand for insurance products is very high. Life insurance products have highest demand (68.76%) both in rural and urban households. In the rural context it is followed by livestock insurance (42.26%), health insurance (28.22%) and crop insurance (19.39%). In urban areas the second highest demand is for health insurance products (78%). The wide gap in demand and enrolment can be explained by a variety of factors reflected in the study which have been lack of awareness, lack of basic facilities like doctors and veterinarians necessary for the claim processes.

1.1 Introduction

A Risk profiling study was carried out by Center for microFinance to analyze the major risks faced by poor. The study was carried out in five locations in Rajasthan with five organizations that had strong Self Help Group (SHG) base in the region. The organizations are 2 federations of Ibtada in Alwar, Sangharsh Mahila Manch and Savera Mahila Manch, Grameen Shiksha Evam Vikas Samiti (GSVS) in Ajmer, Grameen Mahila Vikas Sansthan (GMVS) in Ajmer and Navachar Sansthan in Chittorgarh.

1.2 Structure of Report

The report has been divided into five parts; Introduction, Objective, Methodology, Major Findings and Suggestions.

2. Objectives of the study

The main objectives of the study are enlisted as below:

- To study and understand the extent of risks faced by the poor in rural and urban areas.
- To assess the preparedness and nature of expenditure to combat these risks.
- To understand the perceived risks of the poor and hence prioritize them.
- To give suggestions for product design based on the findings.

3. Methodology

The methodology used for the study was random survey. A sample size of 493 households or was determined for this purpose. A semi structured questionnaire was used for the random survey. Looking in to the states geographical and cultural diversity; the survey was carried out across 5 districts of Rajasthan namely, Ajmer, Alwar, Chittorgarh, Dungarpur and Jaipur.

The assessment for the rural poor was done in the first four districts whereas assessment of urban poor was carried out in Jaipur. In each region, two field coordinators from the respective organizations, one male and one female completed the questionnaires.

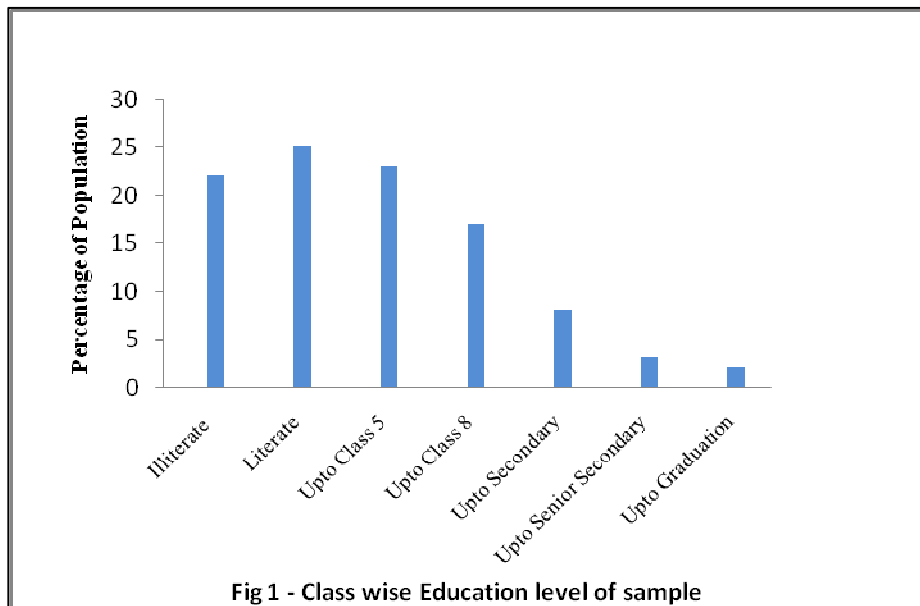
An effort was made to collect the basic data on various socio- economic factors associated with the rural and urban poor and ascertain the risks faced by them and the methods being used by them for risk mitigation. Data regarding insurance was also collected to answer the research questions; what are the major risks faced by the poor in rural and urban areas? Can these risks be covered by present insurance products? What are the gaps in Insurance accessibility by the poor?

4. Findings

4.1 Socio- economic background

Of the 493 households surveyed, 41.81% of the households belong to the SC and 17.86% belong to ST category. The OBC formed 33.55% of the surveyed population, 6% belongs general and 0.94% to the minority community. In addition to this, 45.24% of the surveyed households were BPL families. This composition of the sample population indicates high vulnerabilities to socio-economic risks like employment risks, health risks, natural disaster risks etc. The age class variation of the respondent population had a uniform range. 33% of the respondents belonged to the age class of 0-14 years of age, 33 to 15-30 years, 25% to 30-50 years while only 9% to above 50 years of age.

4.1.1 Literacy and Education



As evident from figure1, the highest education level in more than majority of the households is up to Class 5, (23%). The just literate are 25% who are only able to sign their names. It was also found that only 50% of the population in the age group of 0-14 years was reported to be going to school.

4.1.2 Sources of livelihood

The two major sources of income for the sample population were found to be agriculture and non agricultural labour. The Table 1 provides a detailed overview of the primary and secondary sources of income in

Source of Income	Dungarpur	Chittorgarh	Alwar	Ajmer	Jaipur
Primary	Non agricultural Labour	Agriculture	Non-agricultural labour	Non-agricultural labour	Non-agricultural labour
Secondary	Migration	Non-agricultural labour	Agriculture	Agriculture	Small business

each district. The average annual income from primary and secondary sources for the rural households stands at Rs 48,229 and Rs 5,939 respectively. Similarly for the urban household it stands at Rs 76,008 and Rs 890. Thus, the rural population shows a dependence of 75:25 and urban population 94:6 on primary and secondary source of income. This is mainly due to intermittent nature of cash flow in rural households linked to their seasonal nature of occupation.

4.1.3 Land

81% of the rural households were found to own land. The land ownership was highest in Dungarpur followed by Chittorgarh and Ajmer. The average landholding size was 5.47 bighas but showed great variation across the districts. As

Districts	No. of Households with land holdings	% of Households with land holdings	Average landholding size in bigha	Average value of landholding in Rs
Dungarpur	95.00	96.94	3.04	58,884.62
Chittorgarh	93.00	94.90	3.86	201,790.70
Ajmer	111.00	75.51	12.41	332,796.61
Alwar	60.00	60.00	2.61	730,406.78
Total	359.00	81.04	5.48	330,969.68

represented in Table 2, the average landholding size was found to be largest in Ajmer followed by Chittorgarh, Dungarpur and Alwar. Table 2 provides the land holding details in the four districts. Small landholding sizes indicate practice of sustenance agriculture. In such cases the vulnerability to risks of crop failure is high as only household needs are met through agriculture and investment in asset creation is nil. Though, Ajmer has high landholding sizes, it does not necessarily reflect high productivity as factors like rainfall and availability of water needs to be considered.

The ownership of agricultural implements was reported by only 31% of the land owners, though this figure also showed variation across the districts. Table 3 gives the details of ownership of agricultural implements in the four districts. Correlation of the percentage of ownership of agricultural implements, primary source of income and rainfall data (Fig 6) of last three years strongly supports the fact that despite large agricultural holdings, the households in Ajmer are engaged in sustenance agriculture only.

Districts	% of HH with agricultural implements	Average value of agricultural implements in Rs
Dungarpur	70.53	9,673.85
Chittorgarh	31.18	31,551.72
Ajmer	8.11	51,200.00
Alwar	11.67	226,142.86
Total	31.20	79,642.11

4.1.4 Livestock

74.7% of the rural households surveyed owned livestock population. The urban population does not show any livestock ownership. 64.95% of households amongst the above reported owning buffaloes, 32.62 % owned cows, 25.65% bulls, 57.4% sheep or goat and 2.11% hens. Table 4 gives the average herd sizes of livestock. Though, highest number of livestock owners were reported from Dungarpur (93.88%) followed by Alwar (78%); the average herd sizes are largest at Ajmer. This points towards use of livestock for economic purpose in Ajmer.

	Buffalo	Cow	Goat/Sheep	Bull	Hen
Dungarpur	2	2	4	2	7
Chittorgarh	2	2	4	2	0
Ajmer	7	4	7	1	0
Alwar	2	2	6	1	0

4.2. Major risks of households

Data regarding the major risks faced by the sample population in the past three years was collected. This data was based on the recall memory of the respondents. The major risks that the households faced in the past three years were divided under four heads, Health, Death in the family, Death of Livestock and Crop Failure.

4.2.1. Health

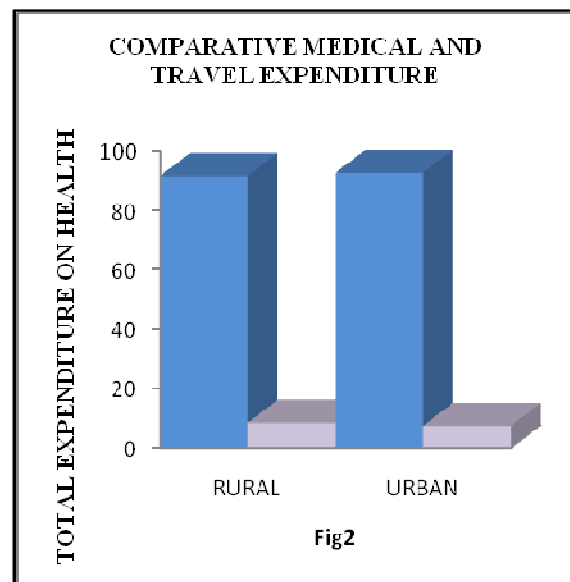
For the purpose of study, the major instances and reasons for hospitalization were recorded for last three years. The loss of wages and the expenses incurred in the treatment was also recorded to assess the financial loss.

43% of the surveyed households faced health risks in the past three years. Out of them, 90% reported the cause of hospitalization to be chronic illnesses like cancer, tuberculosis and eye defects and 10% reported the cause as accidents.

The total expenditure on health included medical expenses and travel expenses as well. The former can be further broken down into consultation charges of physician, cost of medicines and expenses on tests.

The findings revealed that the average annual household expenditure on health was equivalent to 19% of the household income in rural areas and 26% of household income in urban area. Amongst the rural districts the lowest annual household expenditure on health was in Chittorgarh (Rs 1,712) and highest in Ajmer (Rs16, 493). This could be attributed to the fact that Chittorgarh has been the top most districts in implementation of National Rural Health Mission, NRHM. Also, here prescription of generic drugs has been made mandatory by the district administration. The price list of the generic drugs has also been made available to the general public by Chittorgarh Sahakari Upbhokta Bhandar. It can be viewed on the website of Department of Health and Family Welfare, Rajasthan. This measure has definitely helped in bringing down the average medical cost of the households which is reflected in this study. The high medical expenses of Ajmer are because majority of people prefer private hospitals and doctors. 46% of the respondents who faced certain health risk in Ajmer have reported visiting the private hospitals. Also the cost of travel in Ajmer is twice that in Chittorgarh for availing medical facilities.

Fig 2 shows the breakup of total expense on illness into medical expenses and travel expenses in rural and urban context. In rural areas the expenses on consultancy fee, medicines and tests form 91.58% and expense on travel forms 8.42% of the total expense on illness. In case of the urban areas the figures are 92.6% and 7.34% respectively. Thus, average household expenditure on travel for availing health services is nearly equal in rural as well as urban area. The Jagatpura slums which were used for the urban study are situated at the fringe of the city and people have to travel to the hospitals in the city for treatment. This could explain the high travel cost in urban areas. Though there is a Primary Health Center at Jagatpura, the usual preference of people was found to be private hospitals. The high medical cost could be linked to the preference of the private hospitals and practitioners by the urban poor. 60% of the urban poor



reported visiting private hospitals and doctors for health care. The average yearly loss in wage due to illness in rural and urban areas is Rs1514.52 and Rs 13436.50 respectively which is equivalent to 2.8% and 17.47% of the household incomes.

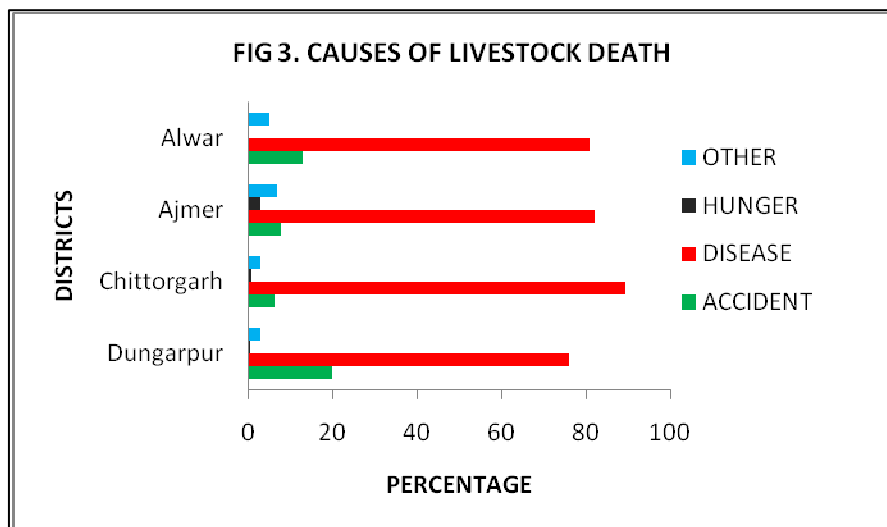
4.2.2. Death in family

In this section data regarding the death of any family member was taken into account. 17.24% of the respondent households reported incidences of death in last three years. The major causes of death have been chronic illnesses. In 13% of cases the cause of death was found to be accidents.

4.2.3. Livestock death and illness

57.33% of the rural households surveyed reported animal death in last three years. The annual average household loss due to death of animal stands at a value of Rs 7367.6. On an average 82% animal deaths were due to diseases, around 12% due to accidents, 1.19% due to hunger and the rest due to unspecified reasons. Figure 2 shows the district wise causes of animal death.

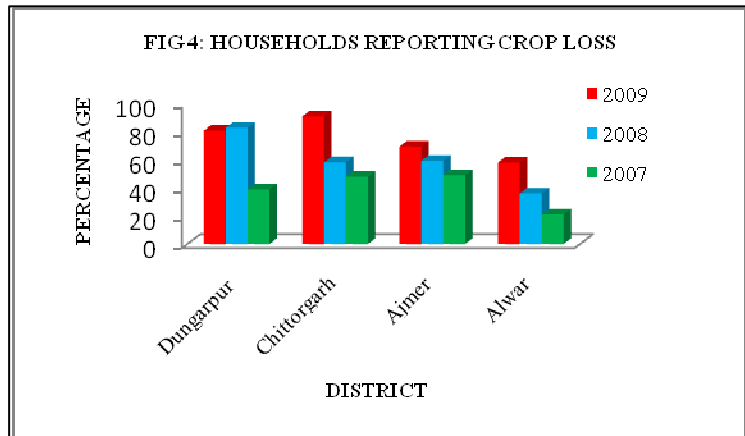
31.6% of households also reported incidences of animal illness. The average annual household expense on animal illness was found to be Rs 436.50. Around 97% of the expense comprised of the consultancy charges of veterinarian, cost of medicine, tests etc and 3% comprised of transportation costs. The



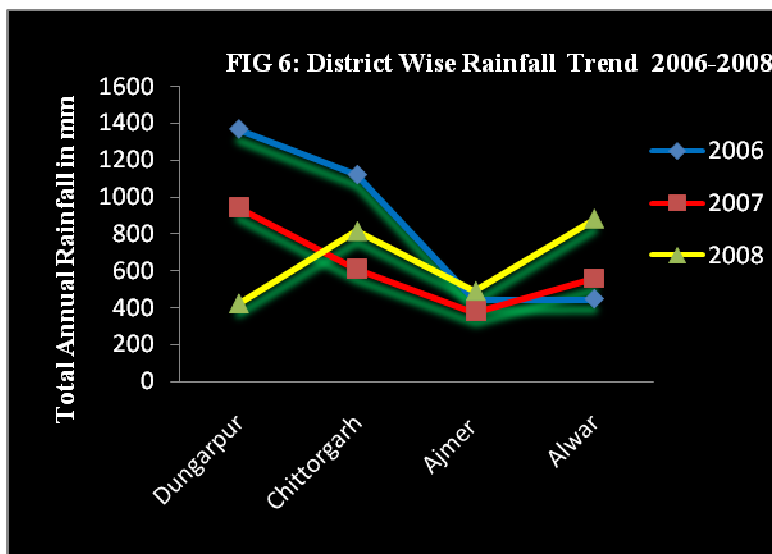
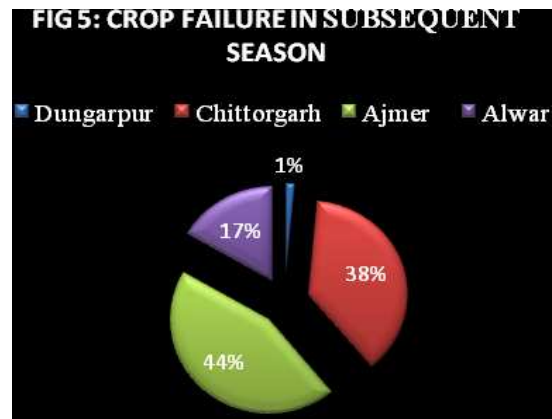
lowest value of annual household expense on animal illness was found to be in Dungarpur followed by Chittorgarh. At the same time as indicated in Fig 2, the highest number of incidences of livestock death was recorded at Dungarpur (34.7%) and the highest of animals dying due to disease only was recorded in Chittorgarh (89.4%). The probable cause could be attached to the fact that in these areas the accessibility to veterinary services is very limited and discussion with the respondents also revealed that the animals are rarely provided veterinary aid during any kind of illness.

4.2.4. Crop Failure

Out of 443 rural families 69% reported incidences of crop loss in last three years. The major Kharif crops grown in the surveyed area are maize, bajra, rice, sugarcane, sesamnee, Jowar, Cluster bean (Gawar). The major rabi crops grown are wheat, mustard, chickpea. Fig 4 provides year wise crop loss in the four districts. Crop failure has been calculated as less than average expected yield. The average yearly loss to households due to crop failure stood to an amount of approximately Rs 10,000 which is nearly 20% of the annual income. The percentage of households reporting crop loss was highest at Chittorgarh (93.87%) followed by Ajmer (66.67%) and Dungarpur (60.2%).



The instance of crop failure in one or more consecutive seasons has also been plotted in the Figure 5.



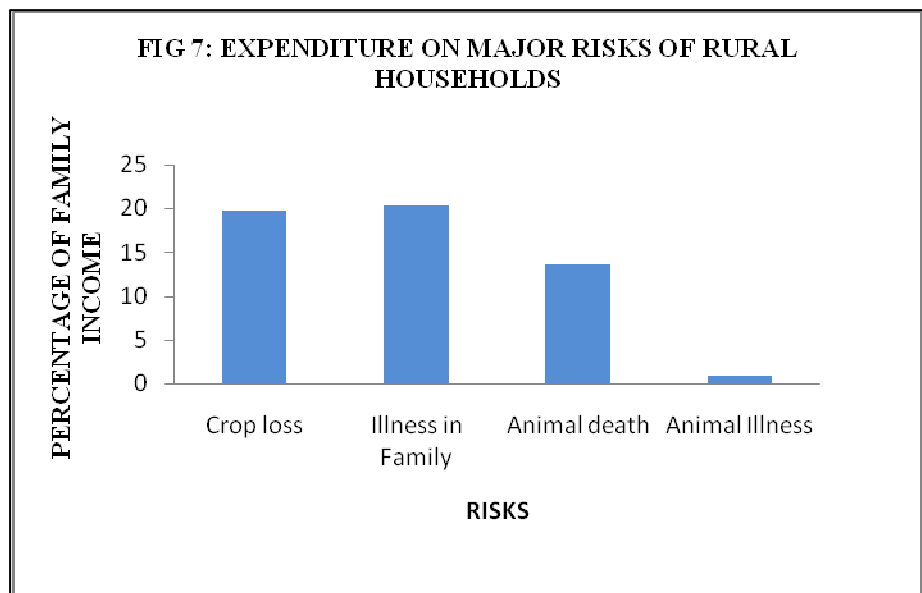
The number of such cases was also found to be highest in Ajmer. If we compare the rainfall data of the last three years (2006-2008) of the four districts, the cause can be clearly linked to less rainfall. Fig 6 gives a comparative picture of the trend in rainfall in these districts in the past three years. It supports the data of lesser cases of crop failure in Alwar and Dungarpur. In 2007 the reported number of failure of crops has been quite less in Dungarpur, Chittorgarh

and Alwar which can be linked to good rainfall received in these areas in the year.

4.3 Perceived risks of the population

In this section, the respondents were asked to prioritize their risks in life irrespective of whether they have faced the particular risk in the past or not. Based on their perceptions, the risks were ranked by the respondents.

Death of the earning member was rated by 80% of the respondents at position one which was followed by accident of earning member and accident of family members. These risks not only cause severe damage to household economy but also have an emotional component. In case of rural households the rating of crop loss or livestock loss or illness was very low. Crop loss was rated as second highest risk only at Dungarpur. However as seen in the above findings and also represented in figure 7, crop loss, animal death and illness occupy a major part of the household income.



4.4. Social Security and Insurance

The awareness about the various social security schemes varied in the rural and the urban population. 46.72% of rural households were aware of any one of social security schemes and amongst them 21.44% were availing any one scheme. In contrast to this only 4% of the urban households are aware of any one social security schemes amongst which only 2% are availing any scheme. This could be attributed to the fact that many of the major schemes like Mahatma Gandhi National Rural Employment Guarantee Scheme are meant exclusively for the rural households. Also, most of the schemes are targeted towards the BPL families whereas the surveyed urban population had only 4% BPL households.

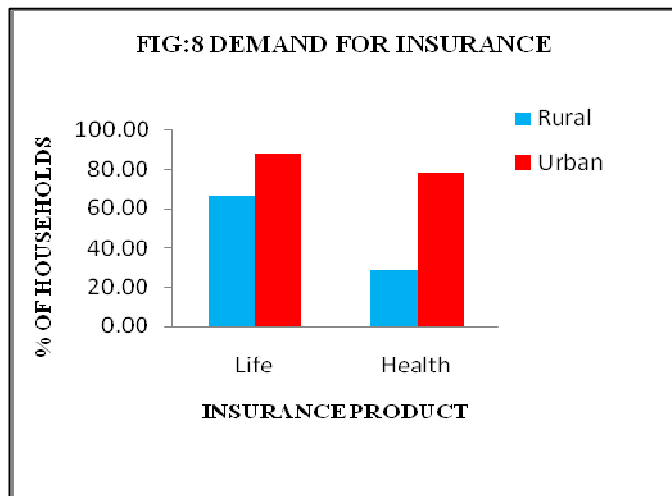
70% of the respondents were found to be aware of insurance and any one of the schemes. The major insurance providers were found to be LIC, ICICI Prudential, ICICI Lombard, Birla Sun

Life and HDFC Life. 208 people amongst the surveyed population had enrolled themselves in life insurance policies. 12 persons also had health insurances. Only 4 households reported livestock insurance, 1 reported crop insurance and 2 reported assets insurance. All the insurance policies were ongoing policies and only 12 people were found to have stopped paying their insurance premiums. The most preferred period of premium payment was found to be biannual but the amount of premium varied across the districts.

4.4.1 Demand for insurance

Though the study indicates very less insurance coverage amongst the surveyed households, there is a big demand for the different insurance products. Table 5 provides the district wise details of the various insurance products. Highest demand in both rural and urban households is for Life insurance products. Figure 8, represents the demand for life and health insurance in rural and urban areas. The demand for life insurance products in rural and urban areas is 67% and 88% respectively. Though, health has been identified as a major risk in the above sections on findings, the demand for health product is surprisingly very low in the rural context. The demand for health insurance products in rural and urban areas is 28% and 78% respectively. In the rural context, the second highest demand is for livestock insurance followed by health and crop insurance. Crop insurance showed highest demand in Ajmer (36.05%) and livestock insurance showed highest demand in Dungarpur (70.41%). This is in confirmation to the need for these products in these areas as reflected in the earlier sections on findings.

Table 5: Demand for Insurance				
	Percentage of Households			
	Life	Health	Crop	Livestock
Dungarpur	87.76	41.84	33.67	70.41
Chittorgarh	64.29	1.02	8.16	27.55
Ajmer	57.14	40.14	36.05	46.26
Alwar	62.00	24.00	8.00	43.00
Jaipur	88.00	78.00	0.00	0.00
Total	68.76	33.27	19.39	42.26



5. Suggestions

Based on the findings of the study, following are some suggestions for product design:

- For rural/ urban poor the insurance products should be designed so as to provide cover for multiple risks as they are most often exposed to a variety of risks of frequent nature.
- The premium amount for the insurance products should be low and the premium collection should be biannual or quarterly as also reflected from the study.
- While designing of life and health products, various local factors should also be considered. One of the factors which emerged as a major component of health expense is cost of transportation which must also be considered.
- Health risk emerged as major risk in the study and the health expenses on families are extensive but existence of health insurance products for rural as well as urban poor is not there. Considering the local factors of scattered settlements and limited availability of doctors, the health products should also cover the aspect of travel and transportation.
- Crop insurance and livestock insurance must be made an integral component of the rural products. They are not perceived by the community as major risks but the findings of the study indicate their frequency of occurrence to be very high and the economic loss caused to be very significant.