Do Spouses Make Claims? Empowerment and Microfinance in India *

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Abstract

We study a situation in which health insurance is extended to husbands and wives of microfinance borrowers. We find that the non-borrowing spouses are less likely to file insurance claims than those who are borrowing. Further, a man more likely to use the health insurance acquired through his wife's loan than is a woman (through her husband's loan). These patterns could arise either because of underlying morbidity differences or because women who do not borrow are disempowered. We find evidence consistent with the latter explanation.

1 Introduction

Many households in developing countries are especially vulnerable to health risks. Financing unexpected health expenses is difficult and can push households into poverty. For instance, Peters et al (11) estimate that a quarter of all Indians that are hospitalized fall be-

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low the poverty line as a consequence. In such a situation, the provision of health insurance has huge potential – but also faces at least two constraints:

1. Providing health insurance to poor households often in rural areas traditionally excluded from health care is a challenge. In addition to adverse selection and moral hazard concerns, the transactions costs of such micro-insurance can be particularly high (Morduch (10)).

2. Health insurance by itself may not be adequate protection against ill-health. There is considerable evidence that men and women differ in their health seeking behavior, i.e. in how they perceive their symptoms and translate that perception into treatment based on the social and cultural context (Santow (14)). These gender differences in health-seeking are related to women's empowerment within the household (Basu (2), Bloom et al (3)).

One promising approach to deliver health insurance to the poor is in partnership with microfinance institutions. Such programs can save on transactions costs by using their existing rural networks. Further, since a goal of microfinance is to empower women, we might expect that microfinance can reduce the gender disparity in health seeking. Many prominent microfinance institutions in South Asia offer health insurance schemes in conjunction with their loans (Roth et al (13)). Despite its potential however, this recent development in micro-insurance has been little studied.

In this paper we study a particularly innovative microfinance institution in India that requires borrowers and their spouses to purchase health insurance when the loan is given. We analyze the claims behavior of borrowers and their spouses, of men and of women. Our goal is to understand how microfinance, gender and health insurance interact. The key feature of the progam is its group health insurance coverage. Borrowers and their spouses receive the same coverage and pay the same premium regardless of their sex, age or any medical histories. In other words, the health insurance intervention treats everybody the same – so any differences in claim behavior must be related either to differences in

underlying morbidity or to differences in health-seeking behavior.

An initial comparison shows that borrowers are twice as likely to file claims as their spouses. While there is no gender difference in the probability of filing claims between male and female borrowers, wives of male borrowers are significantly less likely to file claims than husbands of female borrowers.[1] We test if non-borrowing female spouses are disempowered within the household. Put differently, we hypothesize that women who borrow are empowered in their health seeking compared with women who have acquired health insurance through their husbands. We would like to distinguish this health-seeking hypothesis from one that is based simply on underlying differences in morbidity. Our main finding is that differences in the probabilities of filing claims stem from geographical variations in female literacy rates. This suggests that wives of male borrowers are indeed disempowered.

Our results suggest that improving female literacy can reduce gender differences in the utilization of health insurance. In this respect, it is part of growing evidence that empowering women through education can improve their health outcomes (Grown et al (8)). Further, our results are consistent with both selection and treatment effects of microfinance on female empowerment. Microfinance institutions may be selecting empowered women as borrowers – or they may be making their female borrowers more empowered relative to female non-borrowing spouses.

Our paper contributes to a literature on female empowerment and microfinance interventions. In this paper we discuss how a woman's decision making ability in the household, her skills, and her access to information are dimensions of empowerment that can affect her use of health insurance. We do not measure female empowerment directly; instead we use female literacy as a proxy for all three dimensions of empowerment. Female empowerment has been defined and measured in multiple ways in the microfinance literature. Measures include physical mobility of women (Hashemi et al (5)), control over the use of the loan (Goetz and Sengupta (4)), intra-household decision making (Holvoet (9)), domestic violence

[1] By way of comparison, Ranson et al (12) find that men are more likely to file claims than women in a study of a voluntary health insurance program that is adminstered by a different microfinance institution in India.

(Kim et al (6)) and contraceptive use (Steele et al (15)). While much of this research is on the well-known Bangladeshi microfinance programs that typically exclude men, both men and women can take loans in our study. Approximately half the borrowers are male, and half are female. This allows us to contrast the health seeking behavior of men and women borrowers with their male and female spouses. When loans are targeted to women, such a rich comparison is not possible.

Outline

Institutional details, selection issues and a description of the data are in Section 2. The morbidity and health-seeking hypotheses that we plan to distinguish between are in section 3. We discuss our results in section 4 and conclude in section 5.

2 Context

Institutional Background

The Indian government has taken a proactive role in extending microinsurance to underserved areas. Since 2002, the government has required private insurance firms to sell a fraction of their insurance policies in rural areas and imposed fines if the firms did not comply. Consequently several private insurance firms have set up partnerships with microfinance institutions (MFIs) to meet the government imposed quotas (Roth et al, (13)). In these arrangements, the insurance firm subcontracts the selling of insurance and the processing of claims to the MFI. The insurance firm bears the risk; the MFI takes on the administrative costs of delivering insurance in rural areas.

In this paper we use data from an MFI in India that has partnered with an insurance firm to provide health insurance across several states in India. The data includes basic information on all individuals covered by health insurance and some details about the nature of claims. The health insurance program was started in May 2005 and was substantially extended in May 2006. All borrowers between the ages of 18 and 55 who took loans after

May 1, 2005 were required to pay a health insurance premium in exchange for modest hospitalization expenses. The maximum benefit levels were fixed: Rs 1500 for up to 5 days spent at the hospital, Rs. 10,000 for critical illness and Rs. 25,000 for permanent accident (the exchange rate was 45 rupees per dollar). The annual premium was fixed regardless of borrower age, sex or health history (since the insurance was offered as a group plan).

Starting May 1, 2006 insurance coverage was also required for spouses of any recipients. In other words, borrowers who took a loan after May 1, 2006 and their spouses were both required to carry health insurance (provided they met the age requirements). The premium for each individual was Rs. 76 (1.7 US dollars). The benefit levels were unchanged but coverage was extended to (a) cover certain pre-existing conditions that had been excluded initially and (b) cover first year exemptions.

The MFI prohibits a household from taking multiple loans – so a husband or his wife may take a loan, but not both. Note that borrower households are required to purchase health insurance (provided they are age eligible). This insurance program is not open to non-borrower households.

Selection Issues

In order to understand the selection issues involved with here it is useful to compare the actual program with a hypothetical randomized experiment. Suppose that loans are given to a spouse in a household (chosen at random) and health insurance is required of both spouses in the household. In such a situation, there should be no differences in the probability of filing claims for borrowers and their spouses.

In our study there is non-random intra-household selection into loans – and this selection may in turn depend on the health insurance coverage associated with the loans.[2] Within households, there is deliberate selection as to whether the husband or wife takes a loan since

[2]In addition, the process of household formation may itself be non-random. In socially arranged marriages, which are the norm in the sample we study, men and women are fairly deliberately matched.

both cannot borrow. Further, before May 2006, this selection may indeed be prompted not just by the loans but by the health insurance coverage associated with the loans. So for instance, we might expect sicker spouses to decide to become borrowers precisely because they have a higher value of health insurance. Since both the borrower and the non-borrowing spouse are equally covered by health insurance after May 2006, however, there should be no intra-household selection into loans based on the health insurance offered. For this reason, we restrict our sample to those borrowers and their spouses who have obtained health insurance coverage after May 2006.

Sample of Borrowers and Spouses

We restrict attention to borrowers and their spouses who received insurance starting on May 1, 2006 or later (for the reasons explained above). Our sample includes 279,214 individuals whose health insurance coverage started on or after May 1, 2006. Of these, half are male and half are female. Approximately 54 percent are borrowers and the rest are spouses. The average age is 35 years (Table 1).

The average loan size is Rs. 10,428 (US $232) and is paid in 16 installments (Table 1). The reported activities for which the loan are taken are in Table 2. Dairy projects are twice as popular among men, while shopkeeping is twice as popular among women borrowers. These are the two most prevalent uses for loans (though there is also a substantial uncategorized component) Only 9 percent of the loans are taken for cultivation.

The sample includes individuals who are 'joiners' and 'renewers'. Joiners are first-time borrowers and their spouses. Renewers are returning borrowers and their spouses. 10 percent of the individuals in the sample are joiners and the remaining 90 percent are renewers. About half of the joiners are male and 54 percent of the joiners are borrowers (just as in the sample as a whole).

We measure length of coverage as the number of days between start date of coverage and the end date or May 31, 2007 which ever came first. For instance, if a borrower took a 10 month loan on June 1, 2007, then his coverage would end in on March 31, 2007. The

mean length of coverage is 188 days. Coverage ranges from 1 day (for a borrower and his spouse who took a loan on May 30, 2007 to 11 months (borrowers and their spouses who took a loan in early May 2006).

Figure 2 compares age distributions for borrowers and spouses who were eligible for health insurance. Even though male and female borrowers have similar age distributions (figure 2*a*), male spouses are significantly older than female spouses (figure 2*b*). This reflects a common marriage practice in India and elsewhere: it is socially desirable for husbands to be older than wives. We test this formally using the Kolmogorov Smirnov test for the equality of distributions. We cannot reject the null hypothesis that the age distributions for male and female borowers are equal. But we do reject the null hypothesis for the equality of age distributions of non-borrowing male and female spouses. Male spouses of borrowers are significantly older. We also compare the age distributions of male borrowers and female borrowers. While male borrowers are slightly younger than female borrowers, the difference is not very statistically significant.

The MFI operates through 43 branch offices across the country. Table 1 shows that the average female literacy rate across these branches is 49 percent – and it varies from less literate (32 percent) to highly literate (72 percent). Note that the MFI did not ask its insurance clients for their individual literacy levels – and so we only observe the branch-level literacy rates. One would expect that more literate areas have a higher utilization of health care – an issue that we return to later in the paper.

Insurance Claims

A total of 4238 claims were filed between May 1, 2006 and May 31, 2007 by the individuals in our sample. The claims data contain information on the illness of the claimant, the date when the hospitalization occurred and the amount of the claim.

The average settled claim is Rs. 1238 which is equivalent to 27 US dollars (Table 3). The monthly claim-to-coverage ratio is calculated as the number of claims filed in a particular month as a fraction of the number of individuals covered in a particular month. The

monthly mean for the 13 months in our sample is 0.8 percent.

Figure 1 plots the claim-to-coverage ratio over time for borrowers and spouses by gender. There is a persistent gap between borrowers and spouses; and between male and female spouses. 1.06 percent of borrowers file claims on average every month, while only 0.45 percent of spouses do so. This difference is large and statistically significant (Table 3). Further there is no difference in the average settled claim amounts between borrowers and their spouses. So borrowers are significantly more expensive to insure than spouses. Claim to coverage ratios are disaggregated by gender in Table 4. There is no significant difference between male and female borrowers – but 0.55 percent of male spouses file claims on average each month, while only 0.35 percent of female spouses do. This difference is statistically significant. The amounts for which the claims are settled do not vary significantly by gender.

Figure 1 shows an increase in the claims-to-coverage ratio in August and September of 2006 across all groups. According to MFI officials, this increase was due to the Chikungunya fever outbreak (Chikungunya fever is a mosquito-borne virus fever that is accompanied by joint pains and rashes). Malvankar et al (7) details the deficiencies in the government's response to this outbreak.

The reasons for hospitalization that are reported on the claim forms are typically quite uninformative (Figure 3). Sickness and fever make up half the claims filed. Spouses of borrowers are more likely to report uninformative illness categories than the borrowers themselves.

3 Hypotheses

In this section we discuss reasons for potential differences in the utilization of health insurance by men/women, by borrowers/spouses and by male/female non-borrowing spouses. We shall distinguish between two types of hypotheses. Morbidity hypotheses for patterns in the data are based on unobserved differences in health status. Health seeking hypotheses are based on unobserved differences in the propensity to seek health care, not on underlying

morbidity. We will not attempt to be exhaustive here; instead we simply list a series of hypotheses in each category. In section 4 we can then be specific about which hypotheses our empirical results are consistent with – and which hypotheses they contradict.

Morbidity Differences

We present a series of morbidity hypotheses for differences in the utilization of health insurance. Hypothesis $M1$ predicts overall gender differences and hypotheses $M2$ and $M3$ predict borrower-spouse differences in the probability of filing claims. Finally, there may be gender differences among non-borrowers but not among borrowers (hypothesis $M4$).

M1. Gender differences in morbidity Men and women may simply different susceptibility to disease or accidents. Two extreme situations for when we might expect differences is claim behavior between men and women based on their morbidity are: (a) If childbirth is a major reason for hospitalization, we might expect that women are more likely to file claims than men. (b) If men are disproportionately affected by violence, we might expect that men are more likely to file claims than women. More generally, male/female differences in health status could go either way – males may be more or less likely to file health claims than females.

M2. Healthier People Borrow It is natural to imagine that the healthier spouse in a couple selects to be a borrower (while the sicklier spouse does not). For instance, the healthier household member has higher productivity or higher repayment capability This health explanation would predict that borrowers are less likely to file claims than their spouses.

M3. Borrowing Makes You Sick Imagine that borrowers are more prone to accidents or to disease than their spouses because of the nature of their enterprises. As an illustration – borrowers travel and work in market towns are exposed to accidents while travelling, sickness from contaminated water and crowded marketplaces. For these health reasons, borrowers may be more likely to file claims than their spouses.

M4. Healthier Female Spouses Suppose the wives of male borrowers are younger than average and hence healthier (as suggested by Figure 2). Alternatively, suppose that female spouses are healthier because they stay at home more often (while male spouses have outside employment that puts them at risk of accident or diseases). Among non-borrowers then, female spouses are less likely to file claims than male spouses.

Health-Seeking Differences

Next we outline health-seeking hypotheses that predict overall gender differences ($H1$),borrower-spouse differences ($H2-H4$) and specific female-spouse underutilization of health insurance ($H5-H8$).

H1. Men make decisions Women, particularly younger women often do not have much say in their own health decisions in India (Bloom et al (3)). Instead, husbands, even mother-in-laws make health care decisions for them. The simplest implication of this health-seeking difference would be male/female differences in the probability of filing claims. In particular, we might expect women to file claims less often than men. This would be a sign of female disempowerment within the household.

H2. Borrowers make decisions An individual's bargaining power within the household is likely to determine health-seeking decisions. Suppose that within every household, the individual with higher bargaining power becomes a borrower (or equivalently, borrowing increase that individual's bargaining power within the household). In such situations, borrowers are more likely to file claims than their spouses.

H3. Borrowers are skilled Since formal health insurance is relatively new, villagers may lack the financial literacy necessary to understand the benefits from insurance. Further, filling out health insurance forms involves an ability to navigate the system and get medical professionals to sign off on claim forms. Individuals with these (entrepreneurial-like) skills and/or financial literacy are also more likely to become borrowers. (Equivalently, the process of borrowing from microlenders may increase

an individual's financial literacy). The prediction here is that borrowers are more likely to file claims than their spouses.

H4. Opportunity Costs are higher for Borrowers Suppose that borrowers with their income earning potential have higher opportunity costs of time than their spouses. They may then postpone hospitalization for longer – and this could results in a lower probability of filing claims for borrowers when compared with their spouses.

H5. Female Spouses Lack Bargaining Power Suppose women who have higher bargaining power within the household become borrowers, while women with little bargaining power do not borrow. (Equivalently, suppose that borrowing gives women bargaining power within the household). In both cases, women who become borrowers are likely to seek health care while female non-borrowing spouses are not.

H6. Households Differ in Skills Suppose that women have fewer skills and are less financially literate than men in general. Further suppose that either (a) the women who select to be borrowers are the more skilled relative to the women who do not or (b) the process of borrowing makes women borrowers more financially literate relative to those women who do not borrow. We would then expect female spouses be have a low probability of filing claims relative to female borrowers and to males.

H7. Males hide their loans Borrowers may not always share their information about coverage with their spouses. In particular, suppose male borrowers hide their loans from their wives because they would like to divert borrowed funds to private uses (e.g. alcohol). In contrast, if female borrowers make investments in public household goods, then their husbands are more likely to know of the insurance coverage (than wives of male borrowers). So these information asymmetries would predict that female non-borrowing spouses the least likely group to file claims.[3]

[3]Relatedly, Anderson and Baland (1) study how women choose to join rotating savings and credit associations because of intra-household conflict over the use of funds.

4 Results and Interpretations

We discuss our results in this section in terms of the hypotheses enumerated in section 3. Our intention is to test if health-seeking differences are driving the patterns in claim behavior. Throughout this section we shall use the term spouse to refer to the non-borrowing spouse in the household.

Our findings are inTable 5 where we report the marginal effects of individual characteristics on the probability of filing claims. The dependent variable is a dummy for whether or not a particular individual filed an insurance claim. We first include male/female, borrower/spouse and their interactions as independent variables in column (3). This baseline regression matches the patterns claim-to-coverage ratios (Tables 3 and 4). Spouses are 0.5 percent less likely to file claims than borrowers. Female spouses are 0.3 percent less likely to file claims than average and more specifically are 0.78 percent less likely to file claims than the benchmark group (male borrowers); this is calculated as $0.0002 - 0.005 - 0.003$.

These marginal effects reported in column (3) do not control for several other factors that may influence an individual's decision to file claims, however. Controlling for age is especially important since the age discrepancies (figure 2) between male and female spouses could potentially explain the patterns. In the next three sets of regressions we add controls for coverage length, age and whether the household was a pre-existing microfinance member or a joiner (one at a time). Our intention is to see if the basic results are robust to such inclusions. We would like to control for the length of insurance coverage and the joiner/renewer status since households that have longer experience with the MFI may have better information about the health insurance benefits associated with the loans. Finally, we add branch level female literacy (and interactions) in the last three columns – female literacy is an indicator for a woman's relative empowerment in the family. We include branch level fixed effects in columns 1 through 7 of Table 5 to control for unobserved branch level variation, and cluster standard errors by branch to account for within-branch correlation of errors in columns 8 through 11.

Gender Differences

There is no gender difference for the sample as a whole for all specifications – females are just as likely to file claims as males. This contradicts hypothesis $M1$: it is not the case that men are sicklier than women (or that women are sicklier than men). Further, this also contradicts the simplistic health-seeking hypothesis $H1$: females are not uniformly disempowered relative to their husbands.

Borrower Spouse Differences

Spouses are significantly less likely to file claims than borrowers (specifications 1 through 9 in Table 5). This contradicts hypotheses $M2$: the healthier spouse does not appear to become the borrower. It also contradicts the hypothesis $H4$: borrowers do not have higher opportunity costs that limit their health-care seeking. On the other hand, it is consistent with both morbidity and health-seeking hypotheses: either borrowing makes people sick (hypothesis $M3$) or that spouses lack bargaining power (hypothesis $H3$) or skills (hypothesis $H4$).

When we control for female literacy levels at the branch level, however, we find that the borrower-spouse difference disappears. The coefficient on the spouse dummy is insignificant in columns (10) and (11). Since women in branches with higher female literacy are likely to have higher bargaining power and skills, the health seeking explanations (i.e. hypotheses $H3$ and $H4$) are likely to have caused the borrower-spouse differences in the first place.

We find that a marginal increase in the female literacy rate increases the probability of filing claims by 0.009 percent and this increase is significant (columns 10 and 11). For spouses, both male and female, a marginal increase in female literacy level leads to 0.008 percent higher probability of filing claims in column 10.

Female Spouses

Female spouses are less likely than male borrowers to file claims (columns 3 through 10 of Table 5) consistent with hypotheses $M4$ of underlying morbidity differences and with the disempowerment of wives of male borrowers, hypotheses $H5 - H7$. But in column 11, when we interact the female literacy level with female spouse, the coefficient on female spouse becomes insignificant. This implies that female spouses are not significantly different from male borrowers in terms of filing claims for a given literacy level – and casts doubt on the morbidity explanation $M4$. Instead female spouses are likely to be disempowered in terms of bargaining power ($H5$), skills ($H6$) or information ($H7$). A marginal increase in the female literacy level leads to 0.004 percent increase in probability of filing claims by female spouses (column 11).

Other Findings

If adverse selection were an impediment to this insurance market, then an extension of coverage should lead to riskier types joining. In Table 5 we find that for all specifications, households that have taken new loans are 0.5 percent less likely to file claims than households that are renewing their loans. This difference is significant, fairly large and very robust across specifications. This suggests either (a) borrowers and their spouses who joined after the May 2005 extension in coverage were actually safer types than the preexisting insurees indicating that adverse selection is unlikely to be an issue or (b) joiners are new to the program and lack information about the health insurance benefit.

Older people are more likely to file claims as they are presumably sicker. As expected an increase in 1 year in the age of an individual increases the probability of filing claims by 0.04 percent and this is even slightly exponential (the squared term is small and signficant). The probability of filing a claim should increase in the length of coverage, since the likelihood of hospitalization must increase over time. An increase in 100 days of coverage increase the probability of filing claims by a small but significant 0.002 percent. Finally, we note that

interactions between female, spouse, female spouse and the controls discussed here (age, coverage length, joiner/renewer) were added separately and together in different regression specifications that are not included in Table 5. The coefficients on these interactions were insignificantly different from 0.

5 Conclusion

In this paper we study how health insurance and microfinance interact. We find that there is no gender difference in the claims behavior of male and female borrowers, but that female spouses of male borrowers are significantly less likely to utilize health insurance than husbands of female borrowers. Further non-borrowing spouses are in general less likely to file claims than the spouses who borrow. We also find that these differences stem from variations in female literacy across the branches that the microfinance provider operates in. Our results suggest that either empowered women become borrowers (a selection device) or that microfinance empowers women borrowers (a treatment effect). Wives of male borrowers are disempowered by contrast.

We also find that households that have joined the microfinance program after the coverage was extended are significantly less likely to file claims than pre-existing borrower households. There are both health-seeking and morbidity explanations for this finding. For instance, experience with microfinance programs may make borrower households better informed about insurance coverage – and new loan recipients and their spouses may simply lack this information. Or recent joiners may indeed have lower health risks than pre-existing borrower households, suggesting that adverse selection may be less of a concern in these markets. We leave a fuller exploration of adverse selection in this insurance market to future research.

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Figure 1: Claims to Coverage Ratio - By gender, spouse and borrower

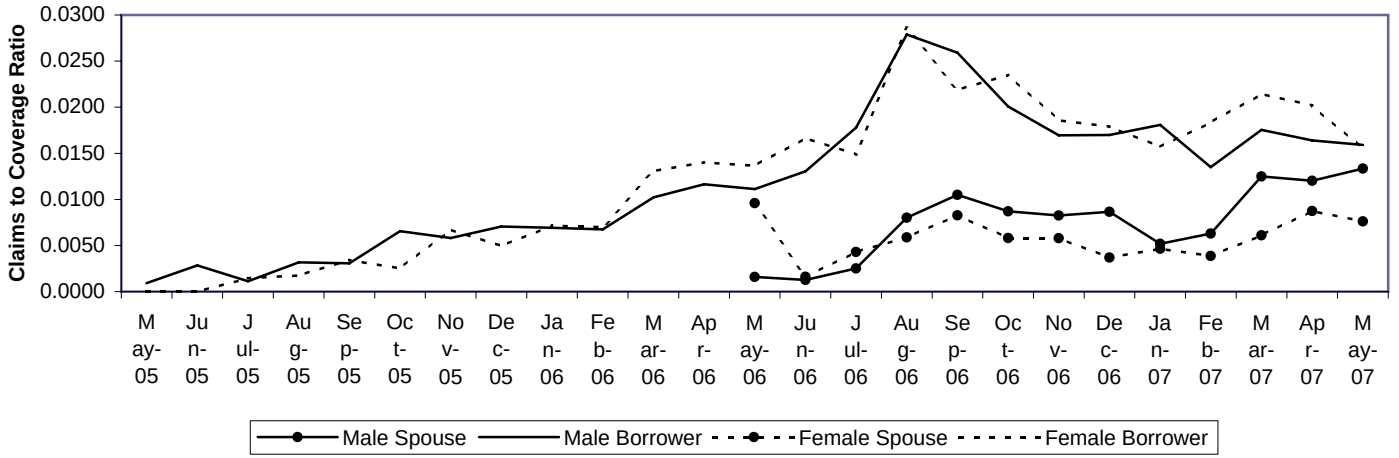

Figure 2a: Age distribution of Borrowers vs. Spouses

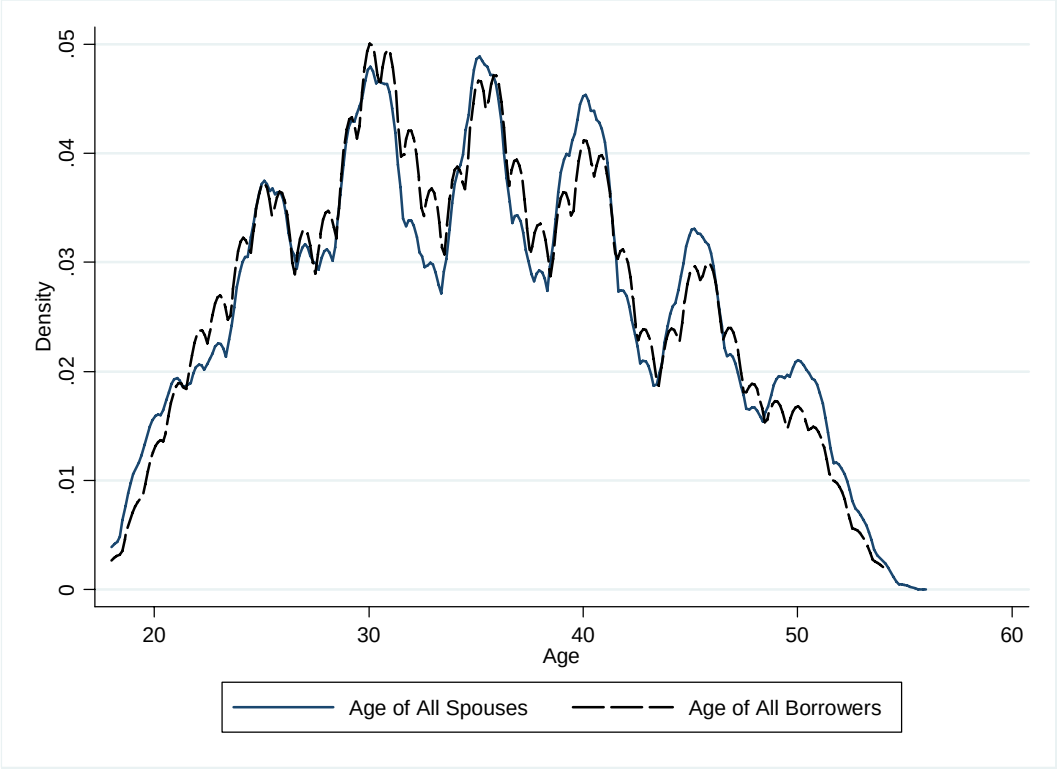

Figure 2b: Age distribution of Male vs. Female Spouses

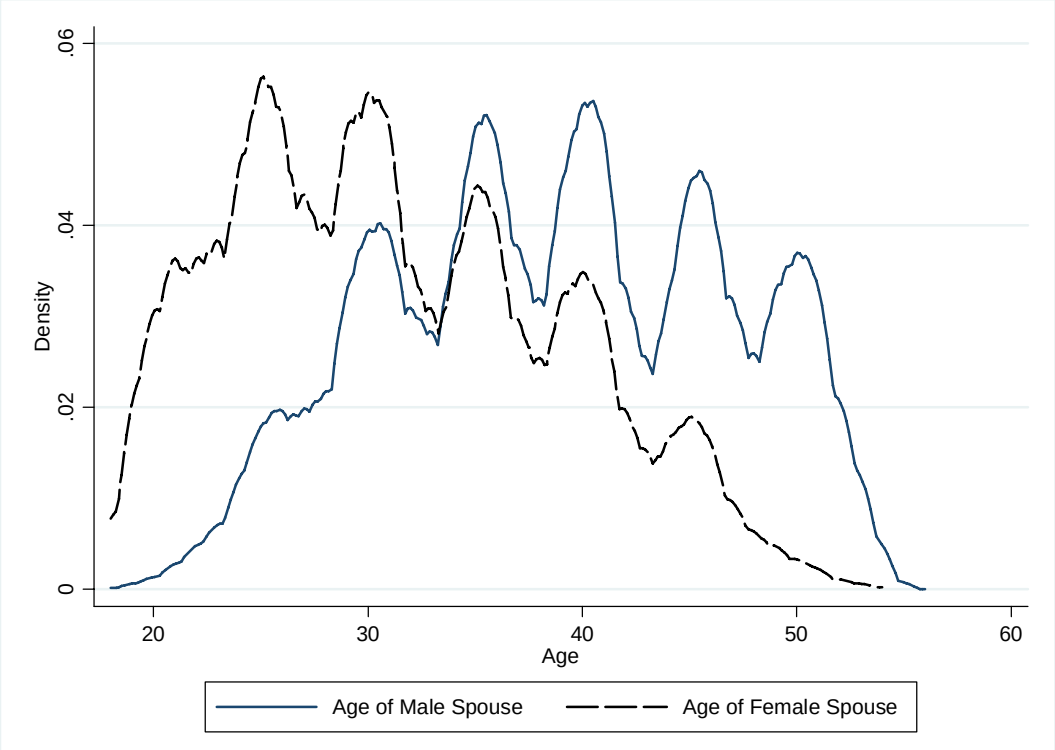

Figure 2c: Age distribution of Male vs. Female Borrowers

Figure 3: Illness breakup: Spouses vs. Borrowers

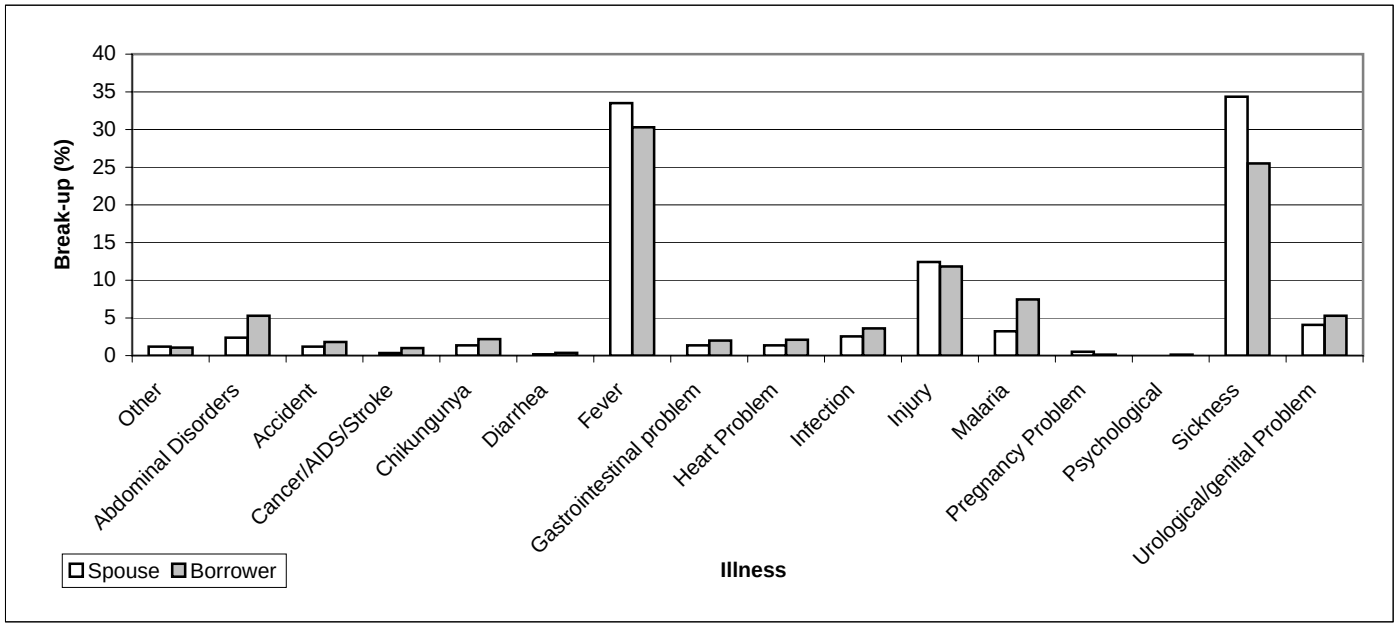

Table 1: Summary Statistics

	Mean	Standard Deviation	Minimum	Maximum	No. of observations
Female	0.50	0.50	0	1	279,214
Spouse	0.46	0.50	0	1	279,214
Female*Spouse	0.22	0.42	0	1	279,214
Coverage (Days)	187.58	110.70	1	394	276,044
Age (Years)	34.98	8.45	18	55	279,214
Joiner	0.09	0.29	0	1	279,214
Loan Size (Rs)	10427.51	4166.12	3000	50000	151,216
No. of installments	15.98	5.62	2	36	151,216
Female literacy rate(%)	49	9.20	31.99	72.45	43

Note: Loan size and coverage information are only available for the 151216 borrowers who have health insurance coverage after May 2006 (and not for their spouses); female literacy rates are from 2001 Census data -district level data for 43 branches

Table 2: Loan Activity (percentage)

Loan Activity	Male Borrower	Female Borrower	All
Bamboo	0.5	0.2	0.7
Cultivation	3.2	5.6	8.9
Dairy	18.1	9.6	27.8
Fish	0.2	0.2	0.3
General	9.6	0.3	9.9
Livestock	1.4	1.4	2.8
Others	8.8	15.1	23.9
Shop	7.3	13.8	21.1
Small business	1.8	2.7	4.6
Trading	0.0	0.0	0.1
Misc.	0.0	0.0	0.0
Total Count	51.0	49.0	100.0

Total number of observations are 151216 borrowers who have health insurance coverage after May 2006

Table 3: Claims and Benefits for Males/Females, Borrowers/Spouses (Means)

	All	Male/Female			Borrower/Spouse		
		Males	Females	Difference	Borrower	Spouse	Difference
Claim-to-coverage ratio	0.0079	0.0081	0.0075	0.0006	0.0106	0.0046	0.0060
				(0.00033)**			(0.00033)**
Settled Claims (Rs.)	1277.97	1280.20	1282.34	-2.14	1275.38	1285.06	-9.68
				(13.36)			(15.01)
Annual Benefit (Rs.)	10.05	10.34	9.58	0.75	13.56	5.90	7.66
				(0.43841)**			(0.44114)**

Note: Claim to coverage ratio is computed by dividing claims by coverage. Annual Benefit is row 1 times row 2
** significant at 5%

Table 4: Claims and Benefits for Borrowers and Spouses by Gender

	Borrower			Spouse		
	Male Borrowers	**Female Borrowers**	**Difference**	**Male Spouse**	**Female Spouses**	**Difference**
Claim-to-coverage ratio	0.0104	0.0107	-0.0003	0.0055	0.0035	0.0019
			(0.00052)			(0.00037)**
Settled Claims (Rs.)	1279.64	1277.37	2.27	1281.40	1300.73	-19.33
			(15.70)			(26.15)
Benefit (Rs.)	13.29	13.63	-0.34	7.00	4.61	2.38
			(0.69126)			(0.49701)**

Note: Claim to coverage ratio is computed by dividing claims by coverage. Annual Benefit is row 1 times row 2
** significant at 5%

Table 5: Probit (Marginal Effects)

	-1	-2	-3	-4	-5	-6	-7	-8	-9	-10	-11
					FiledAClaim						
Female dummy	-0.001		0.0002	0.0004	0.0004	0.0004	0.0004	0.0001	-0.0004	-0.0007	-0.0003
	-1.81		-0.54	-1.34	-1.27	-1.19	-1.21	0.33	-0.25	-0.5	-0.16
Spouse dummy		-0.006	-0.005	-0.005	-0.007	-0.007	-0.007	-0.0045	-0.0045	-0.007	0.0009
		(17.82)**	(10.20)**	(9.65)**	(10.60)**	(10.63)**	(10.62)**	(11.31)**	(11.30)**	-0.43	0.04
Female*Spouse			-0.003	-0.003	-0.002	-0.002	-0.002	-0.0016	-0.0016	-0.0015	-0.0029
			(4.56)**	(5.26)**	(3.79)**	(3.71)**	(3.70)**	(2.74)**	(2.74)**	(2.59)**	-0.95
Coverage length				0.00002	0.00002	0.00002	0.00002	0.000016	0.000016	0.000016	0.000016
				(22.73)**	(22.72)**	(22.71)**	(19.38)**	(20.13)**	(20.11)**	(20.14)**	(20.12)**
Age					0.0001	0.0005	0.0004	0.0004	0.0004	0.0004	0.0004
					(6.69)**	(3.11)**	(3.12)**	(3.15)**	(3.15)**	(3.14)**	(3.14)**
Age2						-0.000005	-0.000004	-0.000004	-0.000004	-0.000004	-0.000004
						(2.30)*	(2.30)*	(2.34)*	(2.33)*	(2.33)*	(2.33)*
Joiner dummy							-0.005	-0.005	-0.005	-0.005	-0.005
							(8.64)**	(8.41)**	(8.42)**	(8.40)**	(8.40)**
Female literacy								0.0001	0.0001	0.00009	0.00009
								(6.94)**	(5.50)**	(4.32)**	(3.93)**
Female*Female literacy									0.00001	0.00002	0.000009
									0.33	0.61	0.26
Spouse*Female Literacy										0.00008	0.00009
										(2.27)**	(1.98)*
Female*Spouse*Female Literacy											0.00004
											(2.49)**
Observations	279214	279214	279214	279214	279214	279214	279214	279214	279214	279214	279214

Absolute value of z statistics in parentheses; * significant at 5%; ** significant at 1%; Filedaclaim=1 if a claim was filed before May 31, 2007, =0 otherwise; Coefficient is for discrete change of dummy variable from 0 to 1; Fixed effects are included in regressions 1 though 7 for the 43 branches (across 10 Indian states)