Health Insurance in Nicaragua: Preliminary Results from a Randomized Evaluation

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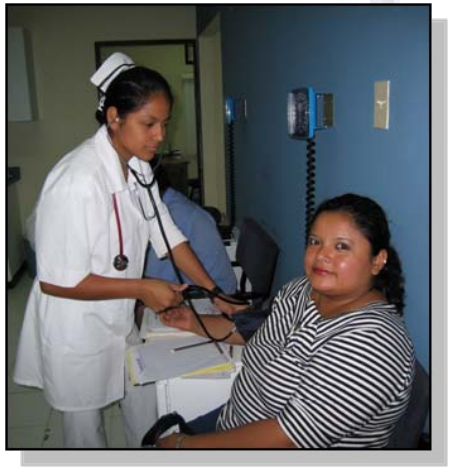
Background

- 2006, Nicaraguan Social Security Institute (INSS) seeking to expand health care coverage to informal workers
- Limitations of health insurance coverage in Nicaragua:
  - INSS' health insurance is currently offering services only to the formal sector (22% of PEA)
  - Another 1.2 million work in the informal sector
- Pilot offering health insurance to informal workers in Managua
- Partnered with 3 microfinance institutions for promotion, affiliation and collection

Mercado Oriental in Managua

Background

- Coverage
  - Individuals, children under 12, maternal care (spouse)
  - Most common preventative care and treatment
  - Includes generic Medication and laboratory exams
  - Hospitalization and surgeries
  - Specialists
  - 24 hour emergency care
- Cost
  - $18 first two months (no coverage)
  - $15 monthly in subsequent months
  - No co-pays



Private clinic contracted out by the INSS in Managua

Randomized Evaluation

- Randomized evaluation (2007-2008) co-funded by the Global Development Network and USAID (PSP-*One* Project)
- Representative sample in 7 Managua city markets
  - Randomly select eligible respondents from a sample frame
  - Baseline Survey of 4,000 respondents
  - Lottery with 4 possible outcomes: no prize information brochure, 2-month insurance subsidy, 6-month insurance subsidy
- Eligibility
  - Micro-entrepreneurs ages 18-55
  - Stratified along gender & MFI status
  - No formal insurance

Survey and Lottery

Randomized Evaluation

- What are the determinants of the uptake of health insurance?
  - Is there adverse selection?
  - Is information enough?
  - How important is convenience?
- Can microfinance institutions assist in the delivery?

1st Stage: Uptake of Insurance

- What is the impact of health insurance on health outcomes?
- How does MFI status/cooperation affect retention?

2nd Stage: Impact of Insurance

Demographic Characteristics

Average Age	37.6
Health Insurance	5.70%
Men	35.40%
Women	64.60%
Years of Education	10
Married	69%
Monthly Income (USD)	$264
Has savings	28%
Average Savings Balance (US$ Total)	$557
Number of Children (Younger than 16)	2.04
Literate	95%
12-month health costs:	
Self + Children younger than 12	$ 87
Spending on Last Illness	$ 19
Number of Medical visits during the last year	5.50

First Stage: Determinants of Uptake

- Large impact of 2 month and 6 month subsidies
- Subsidy
- Market in which they operate
- Women
- Fewer children
- Married
- MFI client
- Have savings

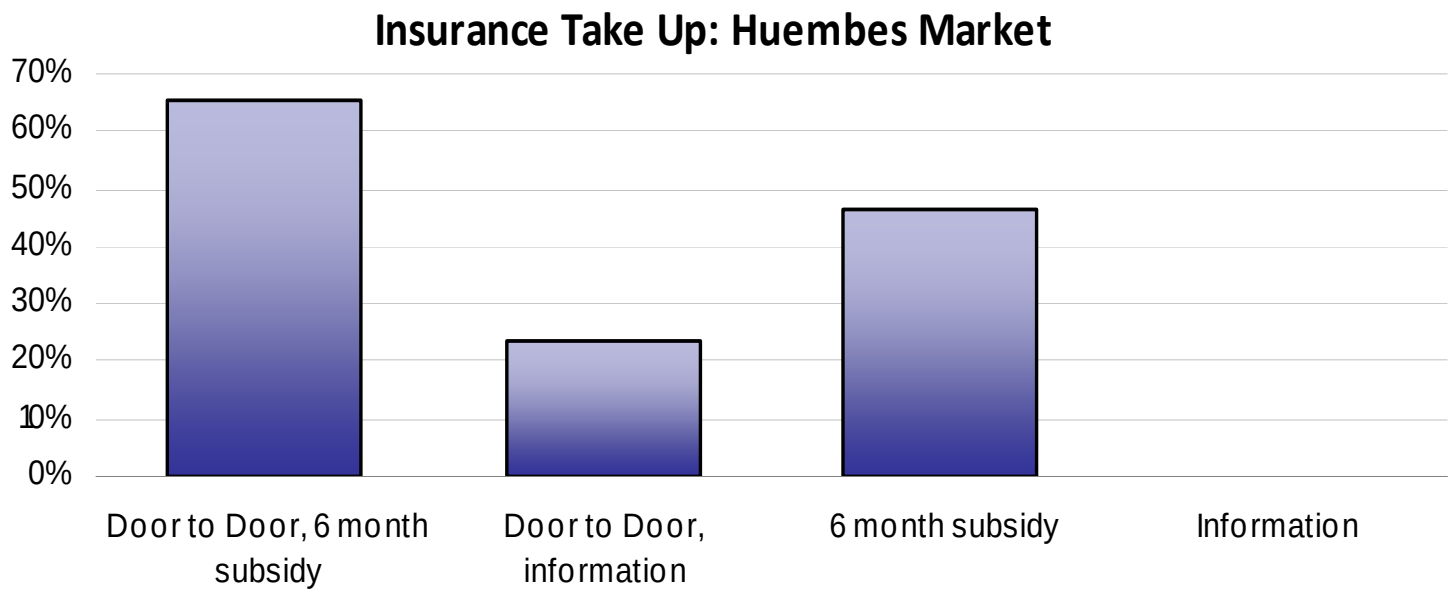
Client of Banco ProCredit and Lottery Winner

First Stage: Uptake and Subsidies

- Information alone had no impact on uptake
- Large impact of 2 month and 6 month subsidies
- Even with a subsidy, many people still did not sign up!

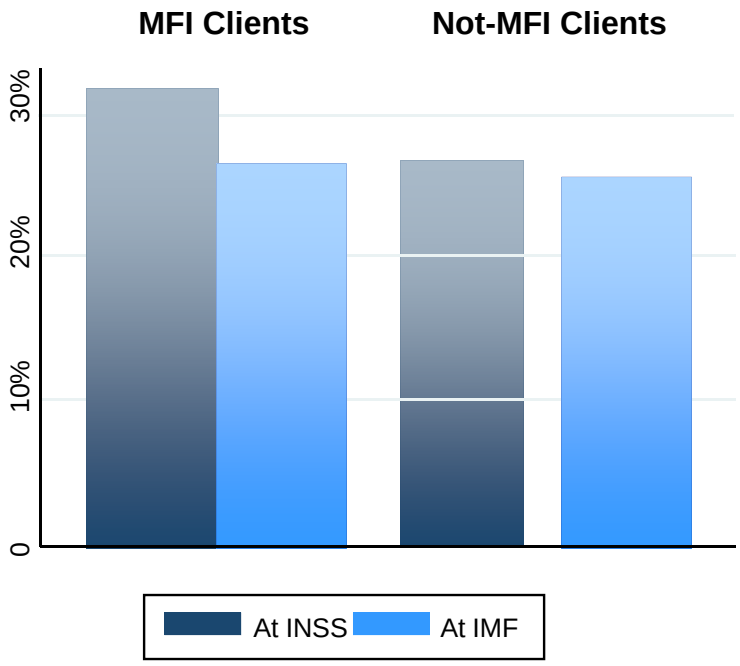
First Stage: Convenience & Uptake

- Door-to-door offer is very effective in increasing up take
- Scope for direct marketing



First Stage: Uptake and MFI Clients

- However, MFI clients were more likely to take up overall, both at the INSS and at an MFI



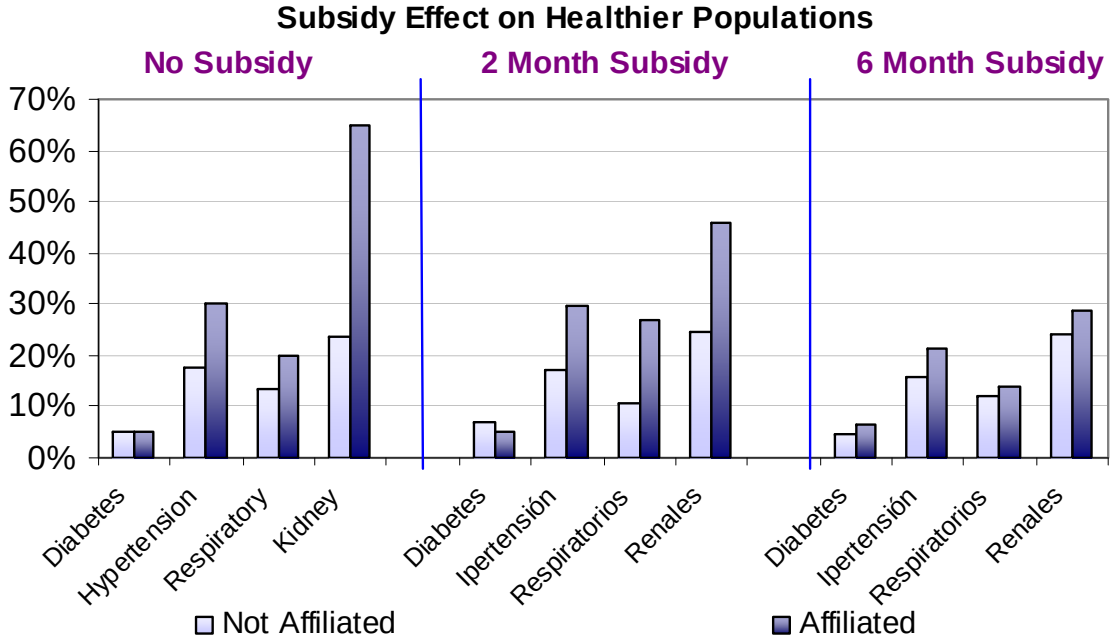
Signing up at INSS vs. MFI

- *"MFIs know about lending, they don't know all the details about insurance coverage"*
- *"MFIs will charge interest and make the cost more expensive"*
- *"MFIs add another layer of bureaucracy that is not needed, it will just take longer to register!!"*
- *"The problem is that they (MFIs) are doing this because where we work in the market, we are not insured, and we do not have a channel to be insured, when would the INSS accept us as we are*

-Focus groups participants from survey, Mercado Oriental, Managua

First Stage: Adverse Selection

- To measure adverse selection: compare health characteristics among those who sign up and those who do no
- Especially a six month subsidy had an effect in signing up healthier people- may help overcome adverse selection effects
- Signs of adverse selection among subsidy winners but much greater adverse selection among those with no subsidy



Main Research Questions

- What are the determinants of the uptake of health insurance?
  - Is there adverse selection?
  - Is information enough?
  - How important is convenience?
- Can microfinance institutions assist in the delivery?

1st Stage: Uptake of Insurance

- What is the impact of health insurance on health outcomes?
- How does MFI status/cooperation affect retention?

2nd Stage: Impact of Insurance

Second Stage: Impact on Health Utilization

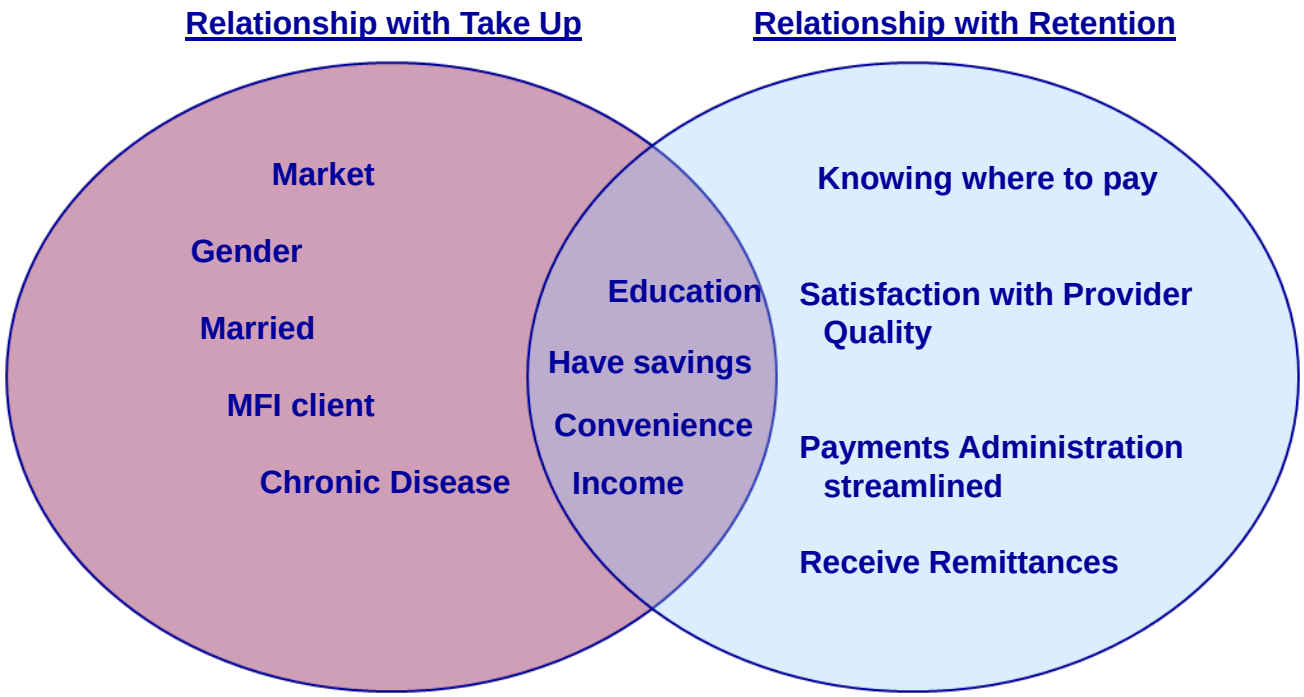
- No increase in utilization of health care facilities in net terms, only a switch from private hospitals and public health centers into EMP use – cost and quality trade offs (adjusted for selection biases)
- 80% of those who signed up made 3.5 visits to an EMP, 1.5 lab visit and 3.1 pharmacy visits on average, consistent with national numbers for service utilization
- Suggests no evidence of moral hazard comparing insured vs. insured groups
- No significant increase in utilization of preventative care such as: General check up, Prenatal test, Pap Smear, Blood pressure, Blood test, Urine test

Second Stage: Impact on Health Expenditures

- Overall decrease in out of pocket health expenditures: 36% for individuals and 40% for individuals with children.
- Decrease in health expenditures does not “make up” for the cost of the insurance: US$180 per year. (Mean expenditure in 2008 was US$93)
- Important part of the reduction in health expenditures is from people with chronic diseases.
  - Decline in out of pocket expenditures for insured households 60%; for individuals 89% between 2007 and 2008.
  - In 2007, People with chronic diseases visited the doctor 7 times on average vs. 3 times for others

Second Stage: Client Retention

- Among those in our follow-on survey, 11.5% who received insurance stayed in the system
  - Subsidy winners 9.3% remained in the system
  - Non subsidy winners 47.1% remained in the system



Second Stage: Determinants of Retention

Positive effect

- Education
- Income
- Perception of Quality/Experience at the Provider
- Effective Administration
- Information
- Knowing where to pay

No effect

- Gender
- Chronic disease
- MFI status
- Time getting to the doctor
- Savings balance

Inverse effect

- Number of children
- Retention for people with no children was 22% vs. 10.4% for people with children

Second Stage: Client Retention

Education

- Much greater likelihood of staying in the program if education is greater : 1% point more for each additional year of education
- Effect of a favorable experience at the EMP is important to retention for all education levels

	Retention
No education	8.3%
Primary	7.1%
High School	12.8%
College	21.3%

Income

- Suggests that the highest (richest) quintiles are retained more in the insurance
- Lowest quintile in income also has high retention

Quintiles	Retention
I (lowest)	10.1%
II	11.6%
III	9.5%
IV	11.5%
V (highest)	18.9%

Second Stage: Client Retention

Satisfaction with provider / Quality

- Satisfaction with EMP service correlated to greater retention
- Retention varied greatly depending on provider selection
- When service was refused, retention was *zero*
- Correlation between time waiting for doctor and retention. Of those who remained in the insurance, the average wait was 37 minutes. Of those who left, the average waiting time was 57%

Satisfaction Indicators	Frequency	Retention
Would return to EMP	61%	24%
Would not return to EMP	39%	6%
Problem solved at EMP	76%	21%
Problem not solved at EMP	24%	12%
Received medication/medical exam / test	83%	20%
Did not received medical treatment / exam	17%	12%

Second Stage: Client Retention

Time / Distance

- Among those who left the program, 38% said time/distance was a main reason- even higher than cost (32%)
- However, statistically, there was no impact of time to the clinic on retention (suggests that other factors compensate)
- Of those who remained in the insurance, the average wait was 37 minutes. Of those who left, the average waiting time was 57 minutes

Know where to pay

- Retention is 18% for those who know where vs. 2.4% of those who don't know
- If you combine this factor with education; then retention increases for all groups, especially for groups with higher education

Know where to pay	Retention
No education	12.5%
Primary	12%
High School	16%
College	31%

Second Stage: Client Retention

MFI clients

- No significant effect on retention of being an MFI client
- Convenience of payments at MFIs:
  - *"It is more convenient to pay at an MFI"*
  - *"I would like to use direct debit from my savings account at the MFI to pay for my INSS insurance"*
  - *"I like to be able to pay in any bank"*

Cost

- Wealthier and more highly educated respondents willing to pay more
- Respondents with ***no*** children said they would pay more ($13.4) than respondents with children ($11)
- Men willing to pay more (C$13.4) than women ($10.5)

Premium Willing to pay by Education Level

Education Level	Monthly Premium (US$)
No education	8.4
Primary	9.4
High School	11.8
College	14.5

Preliminary Conclusions: Uptake

1. ***The use of temporary subsidy increases uptake***
   - 11% of registered subsidy winners were retained (lower retention than those who signed up without subsidy). 38% said they would consider the insurance in the future

2. ***The "subsidy" of signing people up door-to-door was very successful***
   - Highlights the importance of convenience for self-employed
   - Suggests need for more direct sales, automation and IT improvements

Conveniently located private pharmacy inside Huembes Market

Preliminary Conclusions: Impact

3. ***No significant increase in health services' utilization***
   - No evidence of moral hazard in terms of frequencies of visits
   - Switch in providers but not number of visits

4. ***Significant reduction in out of pocket spending for households and individuals***
   - Pharmacy and laboratory costs reduced significantly
   - However, cost of insurance is not "made up" with the savings
   - Overall cost of insurance is higher than most people declare spending and are willing to pay, need to consider an alternative package of coverage at a lower cost

Private Clinic contracted out by the INSS

Preliminary Conclusions: MFI Relationship

5. ***MFI clients are more likely to take up insurance***
   - Evaluation suggests that MFIs had difficulty "selling" the insurance and that clients had difficulty associating MFI with a government insurance program
   - To benefit from an MFI as a delivery channel, more active participation is needed from the insurer
   - MFI agent model may require more active participation of the insurer
   - Need to explore the role of the MFI in selling insurance through alliances

6. ***MFI can work as collection agents, since knowing where to pay was key for clients***
   - This experiment did not effectively test the payments at MFIs because contracts to collect payments on behalf of INSS expired mid-way through evaluation

Banco ProCredit Marketing INSS Insurance to clients

Preliminary Conclusions: Retention

7. Important to consider the differences between what determines take up and what determines retention

- ***Segment market***: target clients that are more likely to stay in the program: Higher incomes, higher education, belong to an MFI and have savings accounts
- "***Educate" clients*** in lower education brackets on issues relevant to taking up and other health awareness issues. *Build realistic expectations of quality of care.*
- ***Simplify procedures:*** Clients need to know where to go. Consider automating some components of the process: affiliation through PDAs/collection through direct-debits
- ***Further standardize quality of service:***
  - Include a subset of overall group of clinics
  - Tighten quality controls
  - Provide education to align client perceptions with provider perceptions
  - Monitor quality and client satisfaction

Comparison with Other Programs

Freedom from Hunger: CARD/Philhealth Partnership*

- CARD (MFI) in the Philippines is enrolling clients into the Philhealth national insurance program
- CARD provides loans to members to cover the annual premium; remits the regular quarterly premium payments to PhilHealth
- Take up 16%: over 5,500 families (about 27,500 individuals) of 34,000 in pilot region
- Qualitative research is underway to learn about why some members enroll and others don't; impact on financial protection and extent of financial protection provided; impact on patterns of care; and to look at reasons for disenrollment
- Until then, CARD has not decided to extend the insurance program to all of its nearly 600,000 members

*Information provided by Marcia Metcalf, Freedom From Hunger